General Average and Risk Management in Medieval and Early Modern Maritime Business

Edited by

Maria Fusaro · Andrea Addobbati · Luisa Piccinno

OPEN ACCESS

palgrave macmillan

General Average and Risk Management in Medieval and Early Modern Maritime Business

Maria Fusaro · Andrea Addobbati ·
Luisa Piccinno
Editors

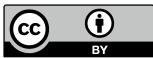
General Average and Risk Management in Medieval and Early Modern Maritime Business

palgrave
macmillan

Editors
Maria Fusaro
University of Exeter
Exeter, UK

Andrea Addobbati
University of Pisa
Pisa, Italy

Luisa Piccinno
University of Genoa
Genoa, Italy



ISBN 978-3-031-04117-4 ISBN 978-3-031-04118-1 (eBook)
https://doi.org/10.1007/978-3-031-04118-1

© The Editor(s) (if applicable) and The Author(s) 2023. This book is an open access publication.
Open Access This book is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.
The images or other third party material in this book are included in the book's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the book's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.
The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.
The publisher, the authors, and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Cover illustration: The History Collection/Alamy Stock Photo

This Palgrave Macmillan imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

This volume is published in Open Access thanks to funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and Innovation Programme ERC Grant agreement No. 724544: *AveTransRisk—Average—Transaction Costs and Risk Management during the First Globalization (Sixteenth-Eighteenth Centuries)*.

Acknowledgements

First and foremost we would like to thank the European Research Council, which has provided funding the whole *AveTransRisk* project.

The essays published here are a selection of those originally presented at a conference which took place in May 2019 in Genoa. The conference was generously hosted by the State Archive of Genoa, and we thank the then Director Francesca Imperiale for her help and support. Giustina Olgiati's outstanding support and enthusiasm for the conference since the very beginning, and the splendid documentary exhibition which she organised to accompany the conference have been essential also for the development of the project at large. Before and during the conference the help and support provided by the whole staff of the Archive has been crucial, and we would like to particularly thank Fausto Amalberti, Gabriella Balestra, Teresa Coloru, Valter Grimaldi, Liliana Piscioneri, Giuliana Ricciardi, Alberto Saitta, Daniele Tinterri and Francesco Tripodi for their contribution.

The city of Genoa showed us an incredibly warm institutional and personal welcome, and for this we thank the *Comune di Genova* and the *Camera di Commercio*. We are thankful for the financial support provided to the conference by the *Association Mondiale de Dispacheurs* and the Italian *Associazione dei Liquidatori di Avarie Marittime*, associations represented at the conference by Joern M. Groninger (then AMD president) and by Paola Gatti. We also would like to acknowledge the formal endorsement we received from the Associazione Italiana di Diritto

Marittimo, whose president—Giorgio Berlingieri—was an active member of the audience. The traditional strengths of Genoese international enterprise shone for us thanks to the enthusiastic support of the *St. George's Club*, whose aim is to strengthen economic and cultural links between Genoa and England, and its soul Francesca Centurione Scotto. Amongst our hosts we would like to thank especially Manfredo Leteo, Annaluisa Cameli, Dina Kotelnikova and Elena Manara who made us feel truly welcome.

The University of Genoa, through his then Rettore Paolo Comanducci, and the Department of Economics and Business Studies, and its director Alberto Quagli, and that of History of the University of Exeter, and its then director Henry French, provided further essential support through Orietta Bertonasco in Genoa and Susan Lee in Exeter.

We also wish to thinks those participants in the conference who, for various reasons, are not present in this volume: Nick Foster, Jolien Kruit, Nadia Matringe, Walter Panciera, Simon Schaffer, Francesco Siccardi and Jonathan Spencer. Alfredo Dani, Marco Doria, Paola Massa and Vito Piergiovanni participation as chairs of our sessions greatly enhanced the conversations.

Genoa was chosen as the conference venue to recognise the intellectual contribution of Giuseppe Felloni, once professor of Economic History at the University of Genoa, and author of a pioneering study on the potential of General Average data for the study of maritime entrepreneurship. His generous donation of his own research material to the Department of Economics and Business Studies provided us with a helpful starting template for the creation of our Database. We are thankful to Guido Laura for his conference contribution sketching Felloni's intellectual heritage, and to Valeria Polonio for the generosity with which she continues to support her husband's intellectual heritage.

Since its beginning the project has substantially widened the scope of its investigation beyond the economic element, and taking into account the legal and political implications which underpinned Averages as a fundamental pillar of maritime trade and transport. We are especially grateful to Jolien Kruit and Nick Foster who have been exceedingly generous with their time and expertise in providing us with critical feedback and helpful suggestions along the way. We are also grateful to Ruth MacKay and Monica Chojnacka for their translations of those contribution which were originally written in Spanish and Italian.

Essential for the project, and for the volume, has been the technical IT contribution of Ian Wellaway, who has been a true intellectual partner in transforming our ideas—and Felloni's original cards—into a Database capable of displaying not just the Genoese material, but a far wider array of diverse documentation pertaining to Averages all across Europe. The Database development has been a true team effort, and a splendid example of productive collaboration, for this we are grateful to Jake Dyble, Marta García Garralón, Antonio Iodice and Lewis Wade. Their joint work will allow scholars to use Averages data and thus opening new avenues for further investigation not just in maritime risk management but in pre-modern economic history at large.

Nearly three years have passed since then, and what years have these been… the issue of risk management and of an equitable redistribution of its related costs has taken an unprecedented visibility all across the globe, which makes the contributions in this volume particularly topical.

Maria Fusaro
Andrea Addobbati
Luisa Piccinno

About This Book

The volume is divided into five parts. The first one—*Why and How Risk is Shared*—starts with Maria Fusaro's introduction and analytical description of the concept of General Average [GA] at large, highlighting some of its peculiarities and importance regarding both its historical development and future policy. This is followed by essays by Ron Harris and Giovanni Ceccarelli that, from two different perspectives, contextualise GA's importance within the development of medieval and early modern risk management tools and business strategies.

The second part—*Origins and Variants of Mutual Protection*—traces the development of GA from Byzantium to Early Modern Italy. It starts with Daphne Penna detailing the complex transition of GA from Roman law to the *Digest*, the Byzantine collection known as the *Rhodian Sea-Law* and their transmission in the *Basilica*. The focus then shifts to Hassan Khalilieh's discussion of how GA rules and practices evolved in the Islamic Mediterranean. This section ends with Andrea Addobbati's analysis of how this complex genealogy was received in early modern Italy.

The third part—*The Iberian Experience*—is dedicated to the multi-faceted articulation of Averages within the Hispanic world. Ana María Rivera Medina argues for the medieval roots of maritime risk mutualisation in northern Spain, and the second essay—by Gijs Dreijer—analyses the transplantation of these usages in the Spanish Low Countries in the fifteenth and sixteenth centuries. The section concludes with Marta García

Garralón discussing the peculiarities of GA as practiced within the *Carrera de Indias*.

The next part—*The Genoese Experience*—focuses on the extremely rich documentary evidence regarding GA in Genoa. It starts with Antonio Iodice's discussion of local early modern normative developments. Then—in the essay by Luisa Piccinno—the focus shifts to the importance of GA data for the analysis of maritime trade passing through the port of Genoa. Andrea Zanini completes this section discussing the intersection between financing the maritime sector and risk-sharing strategies in the eighteenth century.

The fifth and last part—*Mature Systems*—presents three cases in which GA was used as a tool of political economy by states with a strong maritime sector. Jake Dyble analyses the free port of Livorno, Sabine Go discusses developments in Amsterdam, and Lewis Wade the effects of the *Ordonnance de la Marine* in the French case.

Conventions and Word Usage

We refer to ships using the female pronoun (she/her), fully aware this is now a contentious choice. But it is in accordance with the usage in the primary evidence.

Natio/nationes are the Latin terms we consistently use to refer to established mercantile communities away from the home country. It is preferred to 'nations' to avoid confusion with the contemporary understanding of the term and its tight connection with the concept of nation-state, which originated in the period after our analysis but which now dominates regardless of the historical period under examination.

The terminology we use to define roles on board mercantile ships follows the conventions and translations described in: http://humanities.exeter.ac.uk/history/research/centres/maritime/research/modernity/roles/. For some terms whose translation proved to be particularly problematic, the original has been kept in the text. A detailed explanation of its meanings and associated problems is provided in the footnote with all the relevant bibliographical references.

All dates have been normalised to the Gregorian calendar; when necessary, further details have been provided in the footnotes. Dates are following the Common Era format, when relevant we also provide the A. H. (Anno Hegirae) details.

Transliteration from Arabic uses the conventions employed by the *International Journal of Middle East Studies* (IJMES).

Contents

Why and How Risk Is Shared

Sharing Risks, on Averages and Why They Matter 3
Maria Fusaro

General Average and All the Rest: The Law and Economics of Early Modern Maritime Risk Mitigation 33
Ron Harris

Risky Narratives: Framing General Average into Risk-Management Strategies (Thirteenth–Sixteenth Centuries) 61
Giovanni Ceccarelli

Origins and Variants of Mutual Protection

General Average in Byzantium 95
Daphne Penna

Rules and Practices of General Average in the Islamic Mediterranean on the Eve of the Emergence of the Italian Communes 121
Hassan Khalilieh

Principles and Developments of General Average: Statutory and Contractual Loss Allowances from the *Lex Rhodia* to the Early Modern Mediterranean 145
Andrea Addobbati

The Iberian Experience

The 'Mutualisation' of Maritime Risk in the Crown of Castile, 1300–1550 169
Ana María Rivera Medina

General Average, Compulsory Contributions and Castilian Normative Practice in the Southern Low Countries (Sixteenth Century) 193
Gijs Dreijer

The Nautical Republic of the *Carrera de Indias*: Commerce, Navigation, *Casos Fortuitos* and *Avería Gruesa* in the Sixteenth Century 215
Marta García Garralón

The Genoese Experience

General Average in Genoa: Between Statutes and Customs 259
Antonio Iodice

The Economic Structure of Maritime Trade Calling at the Port of Genoa Through the Analysis of General Average Data (Sixteenth–Seventeenth Centuries) 297
Luisa Piccinno

Financing and Risk in Genoese Maritime Trade During the Eighteenth Century: Strategies and Practices 335
Andrea Zanini

Mature Systems

Divide and Rule: Risk Sharing and Political Economy in the Free Port of Livorno 363
Jake Dyble

GA Adjustments in Amsterdam: Reinforcing Authority Through Transparency and Accountability (Late Sixteenth–Early Seventeenth Century) 389
Sabine Go

'The Honour of Giving My Opinion': General Average, Insurance and the Compilation of the *Ordonnance de la marine* of 1681 415
Lewis Wade

Bibliography 431

Index 479

Notes on Contributors

Andrea Addobbati is Professor of Modern History at the University of Pisa. His research interests focus on the history of maritime trade and cultural history. Amongst his works: *Commercio, rischio, guerra: il mercato delle assicurazioni marittime di Livorno, 1694–1795* (Pisa, 2007); 'War Risks and Speculation: The Accounts of a Small Livorno Insurer (1743–1748)', in Ph. Hellwege and G. Rossi eds., *Maritime Risk Management: Essays on the History of Maritime Insurance, General Average and Maritime Loan* (Berlin, 2021).

Giovanni Ceccarelli is Professor of Economic history at the University of Parma and former Visiting Fellow at Princeton University and EHESS Paris. His research interests include: early modern commerce and finance, late medieval economic thought, and food and retail history. On these topics, he published four books: *Risky Markets*, (Brill, 2020) *Typicality in History*, (Peter Lang, 2013) *Un mercato del rischio*, (Marsilio, 2012) *Il gioco e il peccato*, Il (Mulino, 2003) and 50 articles and book chapters.

Gijs Dreijer wrote his Ph.D. on the development of General Average and adjacent forms of Averages in the Low Countries in the fifteenth and sixteenth centuries, being awarded a dual Ph.D. degree by the University of Exeter and the Vrije Universiteit Brussels (VUB) in 2021. He is primarily interested in maritime, legal and economic history of the Low Countries, having also written about the eighteenth-century Ostend Company. At present he is postdoctoral researcher at Leiden University

where he also received his B.A. and M.A., researching how Dutch firms exploited the resources of other European colonial empires.

Jake Dyble was awarded his Ph.D. jointly by the University of Exeter and the University of Pisa in 2021; his thesis examined risk management in the free port of Livorno. Before this, he studied for his B.A. and M.Phil. at the University of Cambridge, where he received first-class honours and the Trevelyan prize. He has also published on Mediterranean slavery and is currently researching the connections between European trade and Orientalism.

Maria Fusaro is Professor of Social and Economy History at the University of Exeter where she directs the Centre for Maritime Historical Studies. She is the PI of *AveTransRisk—Average—Transaction Costs and Risk Management During the First Globalization (Sixteenth-Eighteenth Centuries)*. Amongst her publications: *Political Economies of Empire in the Early Modern Mediterranean: The Decline of Venice and the Rise of England 1450–1700* (Cambridge, 2015).

Marta García Garralón (Universidad Nacional de Educación a Distancia—UNED, Madrid) works on the educational, institutional and operational aspects linked to maritime history. She has published on seafarers' apprenticeship and the professionalisation of naval officers and pilots. Amongst her works: *La Universidad de Mareantes de Sevilla (1569–1793)* (Seville, 2007), and 'The Seamen of the Indies Trade and the University of Seafarers of Seville', *International Journal of Maritime History*, 25 (2013): 91–102.

Sabine Go researches the emergence and development of economic institutions during early modern and modern times in the Low Countries. She is PI of 'Risky Business' which is developing a database of marine insurance premiums from the fifteenth until the nineteenth centuries. Her most recent research focuses on the involvement of the Dutch insurance industry with slavery. Amongst her works: *Marine Insurance in the Netherlands 1600–1870: A Comparative Institutional Approach* (The Hague, 2009) and 'Shared Burdens: The General Average adjustment of the *Jan Maria*', *International Journal of Maritime History*, 33 (2021): 322–343.

Ron Harris is the Kalman Lubowsky Professor of Law and History, and former Dean, at the Faculty of Law in Tel-Aviv University. His

main research field is the history of the business corporation. He is the author of *Going the Distance: Eurasian Trade and the Rise of the Business Corporation, 1400–1700* (Princeton, 2020) and *Industrializing English Law: Entrepreneurship and Business Organization, 1720–1844* (Cambridge, 2000).

Antonio Iodice works on free port institutions, General Average procedures and insurance policies redacted in Genoa during the Early Modern period. He was awarded his first Ph.D. in Early Modern History at the University of Naples Federico II with a double agreement with the University of Aix-Marseille. He just finished his second Ph.D. in Maritime History at the University of Exeter in a bilateral agreement with the University of Genoa.

Hassan Khalilieh is Chair of the Department of Multidisciplinary Studies at the Leon H. Charney School of Marine Sciences, University of Haifa. He is a specialist in Islamic admiralty and maritime law, and international law of the sea of the Early and Classical Islamic periods. Amongst his works: *Islamic Law of the Sea: Freedom of Navigation and Passage Rights in Islamic Thought* (Cambridge, 2019).

Daphne Penna is Assistant Professor in Legal History at the University of Groningen. Her interests are Roman and Byzantine law and in particular their influence on the European legal tradition. She is the author of *The Byzantine Imperial Acts to Venice, Pisa and Genoa, 10th–12th Centuries. A Comparative Legal Study* (The Hague, 2012). She has published numerous articles on legal issues concerning Byzantium and the Italians and on various sources of Byzantine law, including the *Rhodian Sea-Law*, the 'new' *Basilica* scholia, the *Ecloga Basilicorum* and the *Hexabiblos*.

Luisa Piccinno is Associate Professor in Economic History at the University of Genoa. Her major area of expertise is the economic history of the Republic of Genoa especially in its maritime sector. Amongst her recent publications: 'Genoa: a City with a Port or a Port City?', in W. Blockmans, M. Krom, J. Wubs-Mrozewicz eds., *The Routledge Handbook of Maritime Trade around Europe 1300–1600* (London, 2017); and with A. Iodice, 'Whatever the Cost: Grain Trade and The Genoese Dominating Minority in Sicily and Tabarka (16th–18th Centuries)', in L. Andreoni, L. Mocarelli, G. Ongaro, D. Do Paço eds., *Minorities and Grain Trade in Early Modern Europe*, Special Issue of *Business History* (2021).

Ana María Rivera Medina is Professor of Medieval History at the *Universidad de Educación a Distancia* (Spain). Her current fields of interest and work are Atlantic Medieval Maritime History and Digital Humanities. She is a member of Spanish and European research networks and groups. She is the editor of *Ports in the Medieval European Atlantic: Shipping, Transport and Labour* (Woodbridge, 2021).

Lewis Wade recently defended his Ph.D. dissertation at the University of Exeter, entitled 'Privilege at a Premium: Insurance, Maritime Law and Political Economy in Early Modern France, 1664-c. 1710'. An article drawing on his doctoral research, entitled 'Royal Companies, Risk Management and Sovereignty in Old Regime France', is forthcoming in the *English Historical Review*.

Andrea Zanini is Associate Professor of Economic History at the University of Genoa. His main areas of expertise are the organisation of trade and finance during the early modern period and the evolution of regional economies in the long run. He is the author of several books, including *Impresa e finanza a Genova. I Crosa, secoli XVII–XVIII* (Genoa, 2017).

List of Figures

General Average, Compulsory Contributions and Castilian Normative Practice in the Southern Low Countries (Sixteenth Century)

Fig. 1 Varieties of Averages in the Low Countries (fifteenth–sixteenth centuries) 197

GA Adjustments in Amsterdam: Reinforcing Authority Through Transparency and Accountability (Late Sixteenth–Early Seventeenth Century)

Image 1 The first insurance ordinance of 1598 of the city of Amsterdam 396
Image 2 The first folio of the stipulations to guide the conduct of a ship's master 399
Image 3 The first folio explaining the procedure of GA adjustments at the Chamber of Insurance and Average 400
Image 4 Process of calculating GA contributions 402
Image 5 The Adjustment of the incident with the ship commandeered by Hidde Hiddesz 404
Image 6 Table of standardized measure of rope per type of ship 406
Image 7 Damage assessment and reduction of the final amount 408

The Economic Structure of Maritime Trade Calling at the Port of Genoa Through the Analysis of General Average Data (Sixteenth–Seventeenth Centuries)

Graph 1 Nationality of *patroni*/masters submitting Average reports (1589–1592) 311
Graph 2 Nationality of *patroni*/masters submitting Average reports (1597–1599) 312
Graph 3 Nationality of *patroni*/masters submitting Average reports (1600–1608) 317
Graph 4 Nationality of *patroni*/masters submitting Average reports (1640–1641) 324

Image 1 Giuseppe Felloni's 'travel card' 302
Image 2 Giuseppe Felloni's 'travel card' 303

Map 1 The European port network connected to Genoa (1640–1641) 331
Map 2 The Mediterranean port network connected to Genoa (1640–1641) 332

List of Tables

Risky Narratives: Framing General Average into Risk-Management Strategies (Thirteenth–Sixteenth Centuries)

Table 1 Subscriptions in the role of insurance buyer and underwriter in Florence (1524–1526) 88
Table 2 Insured values by amount underwritten in Florence in a selected trimester (March–May 1526) 88
Table 3 Contracts subscribed, by frequency and temporal extension of underwriters, in Florence (1524–1526) 89
Table 4 Value insured, by frequency and temporal extension of underwriters, in Florence (1524–1526) 89
Table 5 Main "leading insurers" in Florence (1524–1526) 90
Table 6 Distribution of underwriters in the role of "leading insurer" in Florence (1524–1526) 91

General Average, Compulsory Contributions and Castilian Normative Practice in the Southern Low Countries (Sixteenth Century)

Table 1 Definitions of varieties of Averages in the Low Countries (sixteenth century) 198
Table 2 GA contributions paid by Juan Henriquez (1562–1563) 205

The Economic Structure of Maritime Trade Calling at the Port of Genoa Through the Analysis of General Average Data (Sixteenth–Seventeenth Centuries)

Table 1 Distribution of Average reports for the period 1600–1608, by type of vessel 320

Table 2 Distance from the port of origin for ships submitting Average reports in Genoa (1600–1608) 322

Financing and Risk in Genoese Maritime Trade During the Eighteenth Century: Strategies and Practices

Table 1 Types of bottomries contracted in Genoa during the eighteenth century 346

Table 2 Bottomry loans obtained by Nicolò Maria Cavagnaro and his investors (1770–1772) 357

Table 3 Bottomry loans obtained by Nicolò Maria Cavagnaro by type of guarantee (1770–1772) 358

'The Honour of Giving My Opinion': General Average, Insurance and the Compilation of the *Ordonnance de la marine* of 1681

Table 1 The amounts underwritten by the *Chambre* in *livres tournois* in the years 1668–1672, alongside the losses recorded in those years. N.B. this does not include Averages 422

Why and How Risk Is Shared

Sharing Risks, on Averages and Why They Matter

Maria Fusaro

Over the last couple of years, thanks to the impact of the COVID-19 global pandemic, the issue of risk and its management has taken centre stage, like probably never before in history, becoming a central element of the political, social and economic global discourse well beyond the academic ivory tower. Part of this public conversation stems from a long-standing debate on global risk management, mainly the argument that Western societies have become too risk averse and thus incapable of appropriately evaluating risk, something with wide-ranging political and

The research for this essay was conducted thanks to funding from the European Research Council (ERC) under the European Union's Horizon 2020 Research and Innovation Programme ERC Grant agreement No. 724544: *AveTransRisk—Average—Transaction Costs and Risk Management during the First Globalization (Sixteenth-Eighteenth Centuries).*

M. Fusaro (✉)
University of Exeter, Exeter, UK
e-mail: M.Fusaro@exeter.ac.uk

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_1

societal consequences.[1] This line of argument has been particularly pervasive within the Anglo-American political and economic sphere, as the connection of freedom with the willingness to take risks has fostered a cult of entrepreneurship, which has been elevated to the highest form of individual contribution to society and has become a defining element of the currently hegemonic Anglo-American variety of capitalism.[2]

Though in contemporary popular discourse entrepreneurship is usually connected with risk-taking, in actual practice successful businesses have constantly strived towards managing risk.[3] The maritime world has always been the riskiest of all working environments. Immense technological developments over the last century have not dented this primacy—alas—as it remains the most dangerous type of activity for both individuals and goods.[4] It, therefore, comes as no surprise that the maritime world is also the place where risk management has enjoyed the longest sustained attention, fostering innovation and both private and public institutional solutions for its appropriate management.

General Average (GA) is most likely the oldest of such risk management instruments.[5] One of its most distinctive elements—jettison—can

[1] Interesting analyses in R. V. Ericson and A. Doyle eds., *Risk and Morality* (Toronto 2003); especially the sharp synthetic contributions of David Garland ('The Rise of Risk', 48–86) and Ian Hacking ('Risk and Dirt', 22–47); A. Burgess, A. Alemanno, and J. Zinn eds., *Routledge Handbook of Risk Studies* (Abingdon–New York 2016). For a stimulating analysis of the historical literature on these issues: F. Trivellato, 'Economic and Business History as Cultural History: Pitfalls and Possibilities', *I Tatti Studies in the Italian Renaissance*, 22 (2019): 403–410; on contemporary debates within policy and business: P. De Vincentiis, F. Culasso, and S. A. Cerrato eds., *The Future of Risk Management*, vol. I: *Perspectives on Law, Healthcare, and the Environment* (Cham 2019).

[2] The literature on varieties of capitalism is massive; for the issues raised in this volume, see M. Fusaro, 'The Burden of Risk: Early Modern Maritime Enterprise and Varieties of Capitalism', *Business History Review*, 94 (2020): 179–200, and bibliography therein quoted.

[3] On the interplay of 'risk' and 'uncertainty' in modern economics, and the theory of 'animal spirits' see: G. A. Akerlof and R. J. Shiller, *Animal Spirits: How Human Psychology Drives the Economy and Why It Matters for Global Capitalism* (Princeton 2009); building on J. M. Keynes, *The General Theory of Employment, Interest and Money* (London 1936), 161.

[4] Rose George, 'Worse Things Still Happen at Sea: The Shipping Disasters We Never Hear About', *The Guardian* (10 January 2015), at https://www.theguardian.com/world/2015/jan/10/shipping-disasters-we-never-hear-about.

[5] On the issue of the origin and different etymologies of the word 'average' see the essays of Andrea Addobbati and Hassan Khalilieh in this volume.

claim to be directly referenced already in the Old Testament and in the Acts of the Apostles.[6] The principle of 'deliberate sacrifice for common benefit' which is at the root of GA is, in and of itself, a relatively simple concept and was generally agreed upon across the centuries and in different legal traditions. But its practical operation, both in terms of applicability and apportioning procedures, was articulated in rather different ways across time and space. These differences—and consequent disagreements, hence litigation—have been at the basis of commercial disputes and jurisdictional battles for centuries.

> There is a general average act when, and only when, any extraordinary sacrifice or expenditure is intentionally and reasonably made or incurred for the common safety for the purpose of preserving from peril the property involved in a common maritime adventure.[7]

This is the formal contemporary definition, as spelled out in Rule A1 of the 'York/Antwerp Rules' (YAR), the contractual regime governing the ascertainment of General Average contributions under the aegis of the *Comité Maritime International*. It is striking how this contemporary formulation mirrors that provided in the sixteenth century by Quintin Weytsen, author of the first learned legal treatise on Averages: "Average is the common contribution of the things found in the ship in order to make good the damage voluntarily inflicted upon items, whether belonging to merchants or the ship, so that lives, ship, and the remaining goods may escape unscathed".[8]

[6] *Jonah*, 1: 5 and *Acts of the Apostles*, 27: 14/14–19 both references from the Bible New International Version. See also: E. Kleiman, 'Externalities and Public Goods in the Talmud', in A. Levine ed., *Oxford Handbook of Judaism and Economics* (Oxford 2010), 107–126; E. Mataix Ferrándiz, 'Will the Circle Be Unbroken? Continuity and Change of the *Lex Rhodia*'s Jettison Principles in Roman and Medieval Mediterranean Rulings', *Al Masāq*, 29/1 (2017): 41–59.

[7] The official text of YAR 2016 is available at: https://comitemaritime.org/work/york-antwerp-rules-yar/ (last accessed 20 December 2021). See also: R. R. Cornah, R. C. G. Sarl, and J. B. Shead eds., *Lowndes & Rudolf: General Average and York-Antwerp Rules*, 15th ed. (London 2018). For a detailed and critical analysis of current practices see: F. Siccardi, *Avaria comune e le regole di York e Anversa* (Turin 2019).

[8] Q. Weitsen [Weytsen], *Tractatus de Avariis.Cum observationibus Simonis a Leeuwen et Matthei de Vicq* (Amsterdam: H. & T. Boom 1672 [1617]), 1: "Avaria est communis contributio rerum in navi repertarum, ad sarciendum damnum bonis quorundam mercatorum sive nauclerorum eum in finem sponte illatum, ut vita, navis, & reliqua bona salva

This continuity forces us to confront immediately two fundamental problems in the analysis of GA: its longevity and its apparent immutability. Scholarly literature on GA is scant, particularly so from the historical perspective, as the strength of the 'immutability' paradigm has hindered the analysis of how theoretical definitions and practical applications changed across time. The most active area of historical investigation has been the technical-juridical one connected with the earliest origins of this contribution and its reception by Roman law. However, this literature displays a more active interest in tracing continuities than in discussing differences and their development.[9]

General Average is just the best known among the many varieties of Averages which supported medieval and early modern European maritime trade. In very general terms, it is possible to divide them into two major groups: 'simple or common averages' applied to expenses due to damages to ship and cargo after accidents in navigation, and to some of those costs which today we would define as transaction costs; and 'gross or common averages'—what today is known as GA—which applied instead to extraordinary expenses regarding ship or cargo which were 'voluntarily'—and successfully—undertaken during the voyage with the aim of saving the venture.[10] Still in the most general of terms, whilst damages and expenses for the former fell on their owner/s, in the case of the latter—as the 'act' had been done to save the common venture—expenses were instead proportionally shared among all participants in the venture for reasons of equity. Within the scope of this essay, it is not possible to give a detailed analysis of all these variants, but for the moment it will suffice to say that, under the two major categories just mentioned, there

evadant", I wish to thank Jake Dyble and Andrea Addobbati for our stimulating conversations on translating Latin into English. On Weytsen see G. P. Dreijer and O. Vervaart, 'Een Tractaet van Avarien – 1617', *Pro Memorie*, 21/2 (2019): 38–41.

[9] On the contextualization of the *Lex Rhodia* within Roman law a good starting point is: J.-J. Aubert, 'Dealing with the Abyss: The Nature and Purpose of the Rhodian Sea-law on Jettison (*Lex Rhodia De Iactu*, D 14.2) and the Making of Justinian's Digest', in J. W. Cairns and P. J. du Plessis eds., *Beyond Dogmatics: Law and Society in the Roman World* (Edinburgh 2007), 157–172; see also the considerations of A. Cordes, 'Lex Maritima? Local, Regional and Universal Maritime Law in the Middle Ages', in W. Blockmans, M. Krom, J. Wubs-Mrozewicz eds., *The Routledge Handbook of Maritime Trade Around Europe, 1300–1600* (Abingdon–New York 2017), 69–85, 75–76.

[10] For a classic description see: Carlo Targa, *Ponderationi sopra la Contrattatione Marittima* (Genoa: A. M. Scionico 1692), 255–260.

were several other types of Averages, and their distribution across different regions and jurisdictions was rather uneven, with the Iberian world probably displaying the widest variety.[11] As a side note, a further challenge in unpacking the complex polysemic universe of Averages lies precisely in the practical difficulty of providing clear and effective English translations of this varied nomenclature, as it appears in different languages in the original documents.[12]

The scope of this volume is to provide an analytical synthesis of the multifaceted developments of Averages in Europe across the medieval and early modern period, though the focus will be primarily on those which today we know as GA. Given the relative obscurity of this risk management tool outside a small group of specialists, it was essential for us to provide a 'mapping of the terrain', which would provide solid grounding for further analyses within our project and beyond.[13] Throughout the volume, the contributions discuss Averages from three intersecting perspectives: their intellectual and philosophical conceptualizations, their normative developments across Europe and the Mediterranean, and their practical operations in the wider Mediterranean and Iberian Atlantic.[14] One of the principal concerns has been to provide a detailed analysis of their technical elements, both in terms of the variety of normative solutions, and in terms of the complexities of the apportioning procedures and calculations.[15] This complexity has been a daunting but essential challenge, being one of the main reasons why scholars have shied away from approaching the study of Averages, which has resulted in mistakes and misunderstandings in the secondary literature.

However, beyond an erudite analysis of minute normative and operational differences—which certainly enriches the field, but can also verge

[11] On the Iberian varieties of Averages, see the contributions of Ana María Rivera Medina, Gijs Dreijer and Marta García Garralón in this volume.

[12] To help with this, the *AveTransRisk* project is producing a detailed historical glossary. Worth noting how the confusion in the nomenclature of different types of 'averages' was already lamented within the English language, on this see G. Rossi, *Insurance in Elizabethan England: The London Code* (Cambridge 2016), 142.

[13] *Average-Transaction Costs and Risk Management During the First Globalization (Sixteenth-Eighteenth Centuries)*, see: http://humanities.exeter.ac.uk/history/research/centres/maritime/research/avetransrisk/.

[14] On the Iberian Atlantic see Ana María Rivera Medina and Marta García Garralón in this volume.

[15] On this see the contribution of Sabine Go in this volume.

on the pedantic—the real purpose behind this volume is to provide an analytical discussion of why Averages do matter, and what we can learn from the long-term historical development of this ancient legal institution.

Over the past decade, scholarship has fully acknowledged the importance of the maritime sector as an engine of European economic growth and institutional innovation during the early modern period.[16] Its expansion, quantitatively in terms of tonnage, and qualitatively in terms of geographical range, stimulated profound structural changes across Europe which had important consequences on the global scale. The intensification of maritime activities led to closer and more frequent contacts among countries and legal systems, which led to exchanges and hybridizations in usages and customs, and increasingly also in enacted law. These changes on the ground and on water also stimulated a re-conceptualization of the maritime space, which in the seventeenth century became the protagonist of a real renaissance of intellectual and legal reasoning. This culminated in a famous war of books, which set the foundations of the debate between *mare clausum* and *mare liberum* which still reverberates today in claims of island nations, and in the constant renegotiations on the limits of territorial waters, from fishing rights to managing environmental risks.[17] As Ron Harris argues in his contribution to this volume, in the early modern period "maritime trade is where the institutional cutting-edge could be

[16] R. W. Unger ed., *Shipping and Economic Growth 1350–1850* (Leiden–Boston 2011).

[17] H. de G, *Mare Liberum, sive de jure quod Batavis competit ad Indicana commercia dissertatio* (Leiden: Ludovici Elzeviri 1609); for a recent critical edition: H. Grotius, *The Free Sea*, translated by R. Hakluyt with W. Welwod's critique and Grotius' reply, edited and with an introduction by David Armitage (Indianapolis 2004); J. Selden, *Mare Clausum seu de Dominio Maris libri duo* (London: W. Stansby for R. Meighen 1635). For some recent analyses and critical syntheses: M. van Ittersum, *Profit and Principle: Hugo Grotius, Natural Rights Theories and the Rise of Dutch Power in the East Indies, 1595–1615* (Leiden 2006); R. Morieux, *The Channel: England, France and the Construction of a Maritime Border in the Eighteenth Century* (Cambridge 2016); P. Emmer, '*Mare Liberum*, *Mare Clausum*: Oceanic Shipping and Trade in the History of Economic Thought', in C. Buchet, G. Le Bouëdec eds., *The Sea in History—The Early Modern World* (Woodbridge 2017), 671–678; G. Calafat, *Une mer jalousée: Contribution à l'histoire de la souveraineté (Méditerranée, XVIIe siècle)* (Paris 2019). On contemporary debates: J. A. Black, 'A New Custom Thickens: Increased Coastal State Jurisdiction within Sovereign Waters', *Boston University International Law Journal*, 37/2 (2019): 355–394; it needs to be mentioned that the latter's historical overview contains mistakes, like a lot of the literature centred on contemporary issues related to GA.

found. This is where new and innovative organizational solutions were designed".

Historical and economic scholars have been especially interested in the Atlantic system, focussing on those northern European countries which took best advantage of these changes to expand their colonial possessions across the globe's oceans.[18] For a long time, the Mediterranean was left out of these important debates, as it was perceived to be a spent force, destined to spend a few centuries in a state of managed decline at best, whilst innovation and modernity moved on to other oceans. However, scholarly attention is slowly shifting back to the Mediterranean, as it is precisely within this particular sea that the interaction between different economic and legal systems has been longest and consistently more intense.[19] There, maritime operational solutions to overcome political, legal and cultural differences benefitted for the longest time from the active engagement of political entities which, quite apart from their confrontations and economic competition, granted each other full mutual recognition. This focus on the Mediterranean, therefore, descends directly from the fact that, regardless of which legal system they 'belonged' to, seafarers and merchants were in agreement on the essential nature of jurisdictions. It is thus possible to trace these interactions across multiple societal layers, from arbitrated dockside disagreements to litigation in municipal courts, to international diplomatic missions.[20]

[18] This literature is immense, for an entry point: D. Armitage, A. Bashford, and S. Sivasundaram eds., *Oceanic Histories* (Cambridge 2017), and bibliographies therein quoted; also L. A. Benton, 'The Legal Regime of the South Atlantic World, 1400–1750: Jurisdictional Complexity as Institutional Order', *Journal of World History*, 11 (2000): 27–56.

[19] A project dedicated specifically to these issues was *ConfigMed* (ERC Advanced Grant n° 295868, PI Wolfgang Kaiser), see: W. Kaiser and J. Petitjean eds., *Litigation and the Elements of Proof in the Mediterranean (16th-19th C.)*, special issue of *Quaderni Storici*, 153 (2016); further outputs of this project are in the Brill series *Mediterranean Reconfigurations*, see: https://brill.com/view/serial/CMED.

[20] On this see: M. Fusaro and A. Addobbati, 'The Grand Tour of Mercantilism: Lord Fauconberg's Italian Mission (1669–1671)', *The English Historical Review*, 137 (2022): 692–727. https://doi.org/10.1093/ehr/ceac116; A. Addobbati and J. Dyble, 'One Hundred Barrels of Gunpowder. General Average, Maritime Law, and International Diplomacy between Tuscany and England in the Second Half of the 17th Century', *Quaderni Storici*, 168/3 (2021): 823–854. https://doi.org/10.1408/104536.

Risk-Sharing and Risk-Shifting

Pre-modern European trade was supported and fostered by a variety of risk management tools. A variety of commercial associations and capital-raising solutions were developed to this end. The great protagonist among risk management tools is undoubtedly premium insurance, its birth and development firmly established as one of the classic topics of European economic history and one of the major outcomes of the Italian medieval commercial revolution.[21]

Over the last few decades, the growing interest in 'insurance', across different subfields and national historiographies, owes a lot to the powerful and multifaceted intellectual impact of New Institutional Economics (NIE), which brought a tight focus on the role of institutions in fostering economic growth.[22] The historical development of insurance took centre stage in these analyses, from both the perspectives of risk management and transaction costs analysis, as insurance came to be considered as a fundamental tool supporting European pre-modern economic development and growth.[23] Most recent studies concentrate on the development of insurance markets across the continent, a development connected with the speculative element increasingly present in

[21] Rossi, *Insurance in Elizabethan England*; A. Tenenti and B. Tenenti, *Il prezzo del rischio. L'assicurazione mediterranea vista da Ragusa (1563–1591)* (Rome 1985); A. Tenenti, *Naufrages, corsaires et assurances maritimes à Venise 1592–1609* (Paris 1959); F. Edler de Roover, 'Early Examples of Marine Insurance', *The Journal of Economic History*, 5 (1945): 172–200.

[22] Several works by Douglass North are crucial here: D. C. North, 'Beyond the New Economic History', *The Journal of Economic History*, 34 (1974): 1–7; *Institutions, Institutional Change and Economic Performance* (Cambridge 1990); 'Institutions', *The Journal of Economic Perspectives*, 5 (1991): 97–112.

[23] On transaction costs, some selected classics: D. C. North, 'Transaction Costs, Institutions and Economic Performance', *International Center for Economic Growth*, Occasional Paper Series, 30 (1992); O. E. Williamson, 'The Economics of Organization: The Transaction Costs Approach', *American Journal of Sociology*, 87/3 (1981): 549–577; Idem, 'Transaction-Cost Economics: The Governance of Contractual Relations', *Journal of Law and Economics*, 22 (1979): 233–262; R. H. Coase, 'The Nature of the Firm', *Economica*, 16/4 (1937): 386–405. On their connection with insurances: A. L. Leonard, 'Contingent Commitment: the Development of English Marine Insurance in the Context of New Institutional Economics, 1577–1720', in D'Maris Coffman, A. L. Leonard, L. Neal eds., *Questioning Credible Commitment: Perspectives on the Rise of Financial Capitalism* (Cambridge 2013), 48–75 and bibliography therein quoted.

insurance contracts.[24] Furthermore, insurance as an innovative speculative instrument played an important role in raising working capital for European commercial expansion across the globe, and in widening the pool of investors in such enterprises. Created to protect maritime trade, insurance also developed as a veritable instrument of financial risk-hedging beyond the maritime sector.[25]

One of the side effects of the wholesale adoption of NIE was the general assumption that risk management tools experienced a rather linear development, with more modern and rational instruments simply replacing older ones. Only recently have scholars arrived at an appreciation of the variety and resilience of older instruments—such as Averages and sea loans—in providing flexible risk management.[26] Seen in this light, Averages fall squarely within this present reappraisal of the European historical variety, as opposed to development, of risk management and profit-sharing instruments and institutions.[27]

Scholarly literature acknowledges that Averages were a precursor of insurance,[28] and from this descends a general assumption that insurance's massive success and global expansion transformed Averages into the poor

[24] G. Ceccarelli, *Risky Markets: Marine Insurance in Renaissance Florence* (Leiden 2020); A. L. Leonard ed., *Marine Insurance: Origins and Institutions: 1300–1850* (Basingstoke 2015); A. Addobbati, *Commercio, rischio, guerra. Il mercato delle assicurazioni marittime di Livorno (1694–1795)* (Rome 2007). Early awareness of the speculative element in: H. Van der Wee, *The Growth of the Antwerp Market and the European Economy, Fourteenth-Sixteenth Centuries*, 3 vols (The Hague 1963), II: 327–328; U. Tucci, 'Gli investimenti assicurativi a Venezia nella seconda metà del Cinquecento', in his *Navi, mercanti e monete nel Cinquecento veneziano* (Bologna 1981), 145–160.

[25] Examples of this transformation into proper financial instruments in: O. Gelderblom, A. de Jong, J. Jonker, 'Learning How to Manage Risk by Hedging: The VOC Insurance Contract of 1613', *European Review of Economic History*, 24 (2020): 332–355; H. Casado Alonso, 'Insuring Life, Insuring Debt: Life Insurance in Sixteenth-Century Spain', *Pedralbes*, 40 (2020): 75–95; P. Hellwege ed., *The Past, Present, and Future of Tontines: A Seventeenth Century Financial Product and the Development of Life Insurance* (Berlin 2018).

[26] P. Hellwege and G. Rossi eds., *Maritime Risk Management: Essays on the History of Marine Insurance, General Average and Sea Loan* (Berlin 2021); on the continuing relevance of sea loans see the contribution of Andrea Zanini in this volume.

[27] On this see: S. F. Mansell and A. J. G. Sison, 'Medieval Corporations, Membership and the Common Good: Rethinking the Critique of Shareholder Primacy', *Journal of Institutional Economics*, 16 (2020): 579–595.

[28] Starting with E. Bensa, *Il contratto di assicurazione nel Medio Evo: studi e ricerche* (Genoa: Tipografia marittima editrice 1884); K. Nehlsen – von Stryk, *L'assicurazione*

man's solution, or a simply obsolete risk management tool. Furthermore, in some sections of the maritime sector, there have been recurrent debates about GA's role and relevance within contemporary shipping.[29] One of the issues hinges on the operational complexities of GA as an instrument, even now that they are regulated under the aegis of the YAR rules.[30] Another focuses on their supposed irrelevance, given the existence of increasingly complex systems of reinsurance to further spread the risk of maritime ventures and their associated costs. The underlying assumption is that this is a recent development, which makes GA an unnecessary relic of the past.[31]

However, the intertwining of Averages and insurance dates back to fourteenth-century Italy. Early Florentine policies, and the rich material extant in the Datini archive, provide ample evidence of how fully comprehensive coverage—that is to say, including expenses related to Averages—was already part of Italian medieval insurance policies.[32] Exclusionary clauses increased with the passing of time, mostly determining limits below which it was not worth activating the policy.[33] The only exception to this appears to be Venice, where insurance policies explicitly excluded Averages with the formula 'free of Average' ('*franche d'avaria*'), this exclusion becoming the defining characteristic of Venetian policies.[34]

marittima a Venezia nel XV secolo (Rome 1988); J. P. Van Niekerk, *The Development of the Principles of Insurance Law in the Netherlands from 1500 to 1800* (Hilversum 1998).

[29] For a synthesis of the debate see: P. Mukherjee, 'The Anachronism in Maritime Law That Is General Average', *WMU Journal of Maritime Affairs*, 4/2 (2005): 195–209, and bibliography therein quoted.

[30] On these issues are essential: J. Kruit, *General Average, Legal Basis and Applicable Law: The Overrated Significance of the York-Antwerp Rules* (Zutphen 2017); and her 'General Average—General Principle Plus Varying Practical Applications Equals Uniformity?', *Journal of International Maritime Law*, 21 (2015): 190–202, and bibliography therein quoted.

[31] Mukherjee, 'The Anachronism in Maritime Law'.

[32] Ceccarelli, *Risky Market*, Chapter 1; Nehlsen – von Stryk, *L'assicurazione marittima*.

[33] Addobbati, *Commercio, rischio, guerra*, 133–134 and bibliograhy therein. On exclusionary clauses regarding Averages see Bensa, *Il contratto di assicurazione*, 75–76; A. Baldasseroni, *Delle Assicurazioni Marittime, Trattato*, 4 vols (Florence: Stamperia Bonducciana 1786), III: 100–130. On the Tuscan debate on these issues: Addobbati, *Commercio, rischio, guerra*, 190–191, 224–230.

[34] Nehlsen – von Stryk, *L'assicurazione marittima*, 216–228.

These early Italian usages would take some time to be properly formalized in legislation, which happened only in the sixteenth century: in Florence in 1523 and 1529, and in Genoa in 1589.[35] On the normative side, Iberians were quicker to legislate on the insurability of Averages, starting with the *Ordenanzas* promulgated in Barcelona (1435–1484).[36] It is worth noting how a particularly active debate on these issues took place in the following century in the Iberian-ruled Low Countries, where the constant interaction of Iberian commercial practice and local rules is proving to be a most stimulating laboratory for legal borrowing.[37] The importance of these transplanted Iberian legal concepts goes well beyond their contribution to the economic development of the Low Countries; they triggered a profound institutional transformation of the whole maritime sector in Northern Europe, with long-term consequences on commercial organizational development.[38]

Even from such a brief sketch it is clear how complex, both theoretically and operationally, the relationship between insurance and Averages was, and this remains a matter of debate even in contemporary practice.

During the early modern period, jurisprudential treatises and compilations of legislation usually dealt with insurance and Averages in close proximity.[39] They were both instruments of risk management; however,

[35] For Florence: Addobbati, *Commercio, rischio, guerra*, 118–119, and the contribution of Jake Dyble in this volume. For Genoa see the contributions of Luisa Piccinno and Antonio Iodice in this volume, and A. Iodice, *Averages and Seaborne Trade in Early Modern Genoa, 1590–1700* (Unpublished PhD thesis, University of Exeter and Università di Genova, 2021).

[36] M. J. Palaez, 'El seguro marítimo en el Derecho histórico Catalán', in his *Historia del Derecho de la navigación*, vol.I: *Trabajos de teoría e historia de derecho marítimo y de derecho aeronáutico* (Barcelona 1994), 138–160; F. Mansutti, 'La più antica disciplina del contratto di assicurazione: le Ordinanze sulle sicurtà marittime', *Assicurazioni: rivista di diritto, economia e finanza delle assicurazioni private*, LXXIV (2008): 683–692.

[37] On these issues see the contribution of Gijs Dreijer in this volume, and his *The Power and Pains of Polysemy: General Average, Maritime Trade and Normative Practice in the Southern Low Countries (Fifteenth-Sixteenth Centuries)* (Unpublished PhD thesis, University of Exeter-VUB, 2021).

[38] G. Dreijer, 'Maritime Averages and the Complexity of Risk Management in Sixteenth-Century Antwerp', *TSEG/ Low Countries Journal of Social and Economic History*, 17/2 (2020): 31–54.

[39] G. M. Casaregi ed., *Libro del Consolato del Mare* (Lucca: Cappuri & Santini 1720); A. Verwer, *Nederlants See-Rechten: Avaryen en Bodemeryen Begrepen in de Gemeene Costuimen vander See; de Placcaten van Keiser Karel den Vijfden 1551 en Koning Filips den*

Averages were—and still are—structurally and substantially different, as they have remained a strictly *mutualistic* form of protection and, unlike insurance, did not develop into a speculative instrument. This makes them a most interesting example of a non-market phenomenon, whose rich quantitative data is providing us with a wealth of evidence related to transaction and protection costs.

The novelty of insurance has been seen in its being an instrument which allowed economic activities to move from the *sharing* of risk between partners, to the *shifting* of risk onto third parties not directly involved in the enterprise. Scholarship is now acknowledging that this shift was not as quick—or, indeed, as linear—as argued by the classic historical and economic literature.[40] Especially within the maritime sector the element of risk sharing remained particularly strong, as evidenced by the continuing successes of the little investigated 'Protection and Indemnity Clubs' (known as 'P&I Clubs') through which ship-owners associations take care of their insurance needs internally.[41]

It also can be argued that Averages could be defined as a type of mutualistic insurance.[42] Outside of the maritime world, insurance developed another strong tradition of mutuality, especially within the Northern European social welfare sector, and this has also remained somewhat on the margin of mainstream debates on risk management.[43] Whilst mutual insurance retains a strong connection with market phenomena, if nothing

II 1563't Tractaet van Mr Quintyn Weitsen van de Nederlantsche Avaryen (Amsterdam: Jan Boom 1711); Targa, *Ponderationi*; E. Cleirac, *Us et coustumes de la mer, divisées en trois parties: I. De la navigation. II. Du commerce naval & contracts maritimes. III. De la iurisdiction de la marine. Avec un traicté des termes de marine & reglemens de la nauigation des fleuves & rivieres* (Bordeaux: Guillaume Millanges 1647); W. Welwood, *An Abridgement of all Sea-Lawes; gathered forth of all Writings and Monuments, which are to be found among any People or Nation, upon the Coasts of the Great Ocean and Mediterranean Sea: And specially Ordered and Disposed for the Use and Benefit of all Benevolent Sea-Farers, within his Maiesties Dominions of Great Britanne, Ireland, and the Adiacent Isles thereof* (London: Humfrey Lownes, for Thomas Man 1613).

[40] An issue discussed in Giovanni Ceccarelli contribution in this volume.

[41] P&I Club usually provide cover for Protection and Indemnity (P&I), but also 'Freight, Demurrage and Defence' (FD&D) and War Risks; further details on one of the most globally important ones, the London Pandi, at: https://www.londonpandi.com/documents/150th-history/ (last accessed 20 December 2021).

[42] See Addobbati, *Commercio, rischio, guerra*, 224–230.

[43] M. H. D. van Leeuwen, *Mutual Insurance 1550–2015: From Guild Welfare and Friendly Societies to Contemporary Micro-Insurers* (London 2016), 3.

else because it needs to keep premiums competitive in relation to the open insurance market, Averages are a purer non-market phenomenon, making them particularly useful for economic historians especially for the analysis of commodities prices. The quantitative data produced during GA procedures generally provides very stable and reliable historical prices and costs, as their evaluation is necessarily closer to the 'real' ones—that is to say, the values perceived to be 'real' by all involved—simply because all who were involved in GAs were active participants in the business venture, and therefore, over/underestimation of costs and commodity prices would affect all parties, each with substantially different interests within the venture. Frauds of course did take place, but our project's quantitative results are supporting the reliability of the quantitative data.[44]

The Theory and Practice of Risk Management: Silent Partnerships, Moral Hazards and (the Impossibility of) Correct Procedures

The mutual element which underpins GA was a constitutive element of European and Islamic legal traditions.[45] In the *Lex Rhodia de Jactu*, as reported in Justinian's *Digest*,[46] the presence of a common danger was the decisive criterion for the sharing of damages by all stakeholders in the venture. In the more capacious rules described in the later Rhodian Sea Laws, which extended the applicability of Averages well beyond those cases described in the *Lex Rhodia*, the criteria remain the same: avoidance

[44] http://humanities-research.exeter.ac.uk/avetransrisk/. The statistical analysis of Sicilian wheat prices on the basis of GA documentation provides rich evidence in this regard, see: L. Piccinno and A. Iodice, 'Whatever the cost: Grain trade and the Genoese dominating minority in Sicily and Tabarka (16th-18th Centuries)', *Business History*, (2022) https://doi.org/10.1080/00076791/2021.1924686. For the analysis of a questionable claim see: Addobbati and Dyble, 'One Hundred Barrels of Gunpowder'.

[45] For extra European equitable risk sharing solutions see: D. Attard, M. Fitzmaurice, I. Arroyo, N. Martinez, E. Belja eds., *The IMLI* (International Maritime Law Institute) *Manual on International Maritime Law*, vol. II: *Shipping Law* (Oxford 2016), 580; A. Reid, 'The Hybrid Maritime Actors of Southeast Asia', in Buchet and Le Bouëdec eds., *The Sea in History—The Early Modern World*, 112–122.

[46] D. 14,2; A. Watson ed., *The Digest of Justinian* (transl. Mommsen, ed. maior), 4 vols (Philadelphia 1985).

of common dangers brings about a proportional sharing of associated costs.[47]

The forcibly shared nature of any maritime venture—via the unit of the ship, which includes both crew and cargo—means that the maritime venture is a single entity during its travels and everyone involved shares all dangers and costs. This created a form of silent partnership between all interested parties. The same principle is evident across all European legal traditions and also in Islamic regulations on General Average. In the words of Abraham Udovitch:

> this incipient on-board relationship is transformed into a more explicit connection. The loss of commercial merchandise belonging to any one owner, creates an involuntary partnership among all the owners of a cargo on a ship.[48]

In commenting on Islamic rules on jettison, Udovitch wrote,

> in practical terms, the notion of partnership does not appreciably change how matters were settled in a post-jettison situation. Nevertheless, it is interesting and, I believe, quite significant that the principle of 'general average' that is formulated in the Rhodian Sea-Laws in terms of a broad principle that is then applied to numerous specific instances, is, in the context of Islamic law, transformed and translated into the associational framework of a partnership.[49]

Easy to intuitively grasp, this idea proved rather complex to translate into precise and accurate legal terms. This complexity only increased in the early modern period when the rise of learned jurists, who played a growing role not only in universities but also in state bureaucracy and courts all across the European continent, stimulated a continent-wide push towards squeezing mercantile customs into precise categories

[47] W. Ashburner, *The Rhodian Sea-Law* (Oxford 1909); and M. Humphreys ed., *The Laws of the Isaurian Era: The Ecloga and Its Appendices* (Liverpool 2017), 113–128. On these issues see the contribution of Daphne Penna in this volume.

[48] A. L. Udovitch, 'An Eleventh Century Islamic Treatise on the Law of the Sea', *Annales Islamologique*, 27 (1993): 37–54, 51.

[49] Udovitch, 'An Eleventh Century Islamic Treatise', 51–52. Issues further developed in H. S. Khalilieh, 'Islamic Laws of General Average', *Journal of Maritime Law and Commerce*, 50/3 (2019): 353–378, and in his contribution to this volume.

derived from Roman law (*ius commune*).[50] The result was the creation of ex post formal categories and definitions that fitted within the overarching structure of jurisprudential learned law. This phenomenon accelerated during the seventeenth century, when maritime legislation effectively became a laboratory of proto-codification in response to states' attempts to expand and strengthen their jurisdictional reach.[51]

Johan van Niekerk, in his analysis of the legal development of GA within Roman-Dutch law, argued for the existence of a strong agreement in the early modern Dutch jurisprudential literature that "a tacit maritime partnership (*navalis societas*, or *societas et communio tacita*)" is the legal basis for GA, and concludes that "this partnership arose automatically because of the factual (and non-consensual) community of risk (*communio periculis*) existing between the interests on board a ship".[52] However, van Niekerk's pragmatic view was (and is) not universally shared, as from a technical jurisprudential perspective the whole issue of whether GA was effectively supported by a 'tacit' partnership remains contested.[53] Trying to solve this conundrum, an intriguing concept emerged—the

[50] A sharp synthesis of these issues from a cultural perspective in: P. Burke, *Hybrid Renaissance: Culture, Language Architecture* (Budapest–New York 2016), 144; from a more legal perspective: E. Kadens, 'Convergence and the Colonization of Custom in Pre-Modern Europe', in O. Moréteau, A. Masferrer and K. A. Modéer eds., *Comparative Legal History* (Cheltenham 2019), 167–185; D. De ruysscher, 'Maxims, Principles and Legal Change: Maritime Law in Merchant and Legal Culture (Low Countries, 16th Century)', *Zeitschrift der Savigny-Stiftung für Rechtgeschichte*, *Ger.Abt.* 138 (2021), and their bibliographies.

[51] F. Trivellato, '"Amphibious Power": The Law of Wreck, Maritime Customs, and Sovereignty in Richelieu's France', *Law and History Review*, 33 (2015): 915–944; and her '"Usages and Customs of the Sea": Étienne Cleirac and the Making of Maritime Law in Seventeenth-Century France', *Tijdschrift voor Rechtsgeschiedenis / Revue d'histoire du droit / Legal History Review*, 84/2 (2016): 193–224; D. De ruysscher, 'Maxims, Principles'; M. Fusaro, *The Making of a Global Labour Market, 1573–1729: Maritime Law and the Political Economy of the Early Modern Mediterranean*, forthcoming with Cambridge University Press.

[52] Van Niekerk, *The Development of the Principles*, 1: 76, discussion of the relevant texts at 74–76.

[53] For a contemporary analysis of GA as an 'implied contract' see the considerations of G. M. Gauci, 'Of Piracy and General Average: Contribution in General Average for Ransom Payment Occasioned by Piratical Activity', *Journal of Maritime Law and Commerce*, 50/2 (2019): 235–255.

germinamento—which allows us to glimpse the border between operational customs and their formalization in learned legal scholarship.[54] The seventeenth-century Genoese jurist Carlo Targa described the *germinamento* as a deliberation made by the shipmaster, with the agreement of the merchants if present, otherwise of the majority of the crew, to voluntarily sacrifice part of the ship or cargo to avoid a bigger danger which would threaten the entire venture.[55] This pretty obscure legal *escamotage* was probably devised for the purpose of reassuring university-trained legal professionals who could be sitting in those courts which certified the whole GA process, and who were less familiar with, when not downright sceptical towards, maritime usages and customs.

The schizophrenia between the jurisprudential and operational realities continued to plague GA practices. Having created a new legal category to formally constitute the ship's risk community, it remained the fact that acts leading to GAs were necessarily performed under extremely difficult circumstances. In other words, if an event (*casus fortuitus*) leads to actions to save the venture, thus creating the conditions for a GA, there is an unavoidable clash between formal legal procedures and the acutely time-sensitive emergency of impeding danger at sea.

The essays in this volume describe all manner of different formal procedures. How frequently they were followed in practice is unclear, although common sense leads us to believe that they were rarely. Targa, on the basis of his long service in the Genoese court of the *Conservatori del Mare*, was of the opinion that GA cases in which all such formalities were observed were precisely those which should have been examined with particular attention, as most likely their formal perfection concealed fraud. One can easily visualize his sarcastic look when he wrote:

[54] L. Goldschmidt, '*Lex Rhodia und Agermanament*: Der Schiffsrath – Studie zur Geschichte und Dogmatik des Europäischen Seerechts', *ZHR* (*Zeitschrift für das gesamte Handelsrecht*), 35 (1888): 37–90, 321–395; for an analysis and the relevant bibliography see the contribution of Andrea Addobbati in this volume.

[55] Targa, *Ponderationi*, Chapter LXXVI 'Di Germinamento', 316–317: "Questa non è altro che una deliberatione fatta dal Capitano di Nave, ò dal Patron di Barca, approvata da Mercanti se vi sono, ò non essendovene, dalla maggior parte della gente di Nave di volere volontariamente arrischiarsi, incontrando un pericolo remoto, o danno minore, per schivarne un maggiore più prossimo, per doversi poi ripartire il danno del perso, ò Guasto sopra il salvato [...]".

> when great danger looms, juridical acts do not naturally come to mind, and amongst the great quantity I have seen in more than sixty years of maritime judicial practice, I can remember no more than four or five declarations which recounted all correct juridical forms, and in each of these there were reasons for criticism as they appeared too premeditated.[56]

The category of 'moral hazard' has been well investigated with regard to insurance, both historically and in contemporary practice. In David Garland's words, "'moral hazard' describes the temptations to bad behaviour (false claims, carelessness, wilful damage, etc.) that the promise of compensation can produce for an insured party".[57] The mutualistic basis of GA goes a long way in limiting moral hazard, founded as it is on proportional sharing among stakeholders who have different interests in the venture. Additionally, because it is an instrument not subject to speculation, it is more likely that it does actually produce reliable price and costs data, as sharing mechanisms disincentivized the over- or under-valuing of damages. However, a formally perfect GA procedure could hide many ills, and given both the complexity and the varieties of GA regulations, the responsibility of the ship master in handling the whole process was at the forefront of jurisprudential debates and the daily practice of the courts.[58]

[56] Targa, *Ponderationi*, Chapter LIX 'Di annotatione sopra il Gettito', 253: "[…] sopraggiungendo un grande pericolo, poco vengono a memoria li atti giuridici, et io in anni sessanta di pratiche maritime che n'havrò veduto gran quantità non mi ricordo haver veduto Consolati á pena quattro in cinque fatti per gettito notato giuridicamente alla forma prenarrata, et in ogn'un di questi vi è stato da criticare per esser parsi troppo premeditati".

[57] Garland, 'The Rise of Risk', 54. For moral hazard in insurance, see C. Kingston, 'Governance and Institutional Change in Marine Insurance, 1350–1850', *European Review of Economic History*, 18 (2013): 1–18 and bibliography therein quoted; I thank Gijs Dreijer for bringing to my attention the further distinction made between "moral and morale hazard, the former denoting an increased chance that some person intentionally causes a loss or is unwilling to pay to prevent losses, the latter as an act that causes someone to be less careful than they would otherwise be", in A. C. Williams and R. M. Heins, *Risk Management and Insurance* (New York 1964), 51.

[58] See the comprehensive analyses of Guido Rossi, 'The Liability of the Shipmaster in Early Modern Law: Comparative (and Practice-Oriented) Remarks', *Historia et ius*, 12 (2017), available at: http://www.historiaetius.eu/uploads/5/9/4/8/5948821/rossi_guido_12.pdf (last accessed 12 October 2021); 'The Barratry of the Shipmaster in Early Modern Law: polysemy and *mos italicus*', *Tijdschrift voor Rechtsgeschiedenis*, 87/1 (2019):

Another important issue that needs to be acknowledged is that the nature of GA produces somewhat of a structural bias favouring ships' interests above merchants'. There are several factors to take into account in this regard. The initial declaration and the subsequent paperwork were produced by the master, and the witnesses were usually crew members. Cargo interest was (and is) far more fragmented among different stakeholders who were not usually present on the vessel during the event itself. The value of the cargo was also usually higher than that of the vessel, and ship interests commonly contributed a small fraction of its total value.

Furthermore, whilst in the early modern period it was becoming common for cargo to be insured, the same was not true for ships (what today we would call 'hull insurance'). All these factors skewed the process, and fraud remained a possibility especially from the ship side, as GA could provide a convenient mechanism for defraying ships' maintenance and refurbishment costs, and also cover for human mistakes.[59]

The bottom line is that in handling GA there was no alternative to cooperation without trust.[60] No single actor—be it an individual or state authority—had the capacity or the legal infrastructure to control the whole process, so there was no alternative to trusting one's counterparts. And in practical real-life terms, a ship master could cheat once or maybe twice, but not much more as information circulated between merchants and ports, and masters' reputation was a matter of commercial knowledge.[61] If he did not act professionally, eventually merchants would not trust him; in the Mediterranean maritime world, reputations travelled quickly, and the importance of individuals' reputation emerge strongly

65–85; 'The Barratry of the Shipmaster in Early Modern Law: The Approach of Italian and English Law Courts', *Tijdschrift voor Rechtsgeschiedenis*, 87/4 (2019): 504–574.

[59] Issues discussed at length in J. A. Dyble, *General Average in the Free Port of Livorno, 1600–1700* (Unpublished PhD thesis, University of Exeter and Università di Pisa, 2021).

[60] J. Wubs-Mrozewicz, 'The Concept of Language of Trust and Trustworthiness: (Why) History Matters', *Journal of Trust Research*, 10 (2019): 91–107; on its importance in long-distance trade: F. Trivellato, *The Familiarity of Strangers: The Sephardic Diaspora, Livorno, and Cross-Cultural Trade in the Early Modern Period* (New Haven–London 2009). For a more sociological analysis, see K. S. Cook, R. Hardin, and M. Levi, *Cooperation Without Trust?* (New York 2002).

[61] For actual examples of the preference (even competition) among merchants for specific ships, because of their reputation for seaworthiness, and the concomitant avoidance of others, see: S. D. Goitein, *A Mediterranean Society*, 6 vols (Berkeley–London 1967–1993), I: 313.

from the documentation.[62] Reputation remained a crucial element of pre-modern credit-worthiness, especially within a mutualistic environment where reciprocity was embedded.

Considering all these factors, it is clear that we are, therefore, confronted with a perfect example of the type of obscure professional knowledge and language which can easily engender scepticism in non-experts. Not a lot has changed in the intervening centuries. Reviewing the most recent edition of *Lowndes & Rudolf*, the 'bible' of GA contemporary legal management, Angus Glennie comments that "even for the professional lawyer, the law of general average is particularly esoteric and abstruse".[63] And it is precisely this esoteric element which is at the root of a particularly intriguing issue in the long life of GA, namely that its operation and procedures have been put into question whenever new players have entered the system; this happened with the English and Armenians in the seventeenth-century Mediterranean, and it is happening with the Chinese on the global scale today, making GA a sensitive bellwether of structural changes within maritime trade. Periodic attempts to discuss or reform the mechanisms underpinning mutual cost redistribution reveal the cultural specificities of risk analysis, and further point to the crucial importance of trust, both in the pre-modern period and today.[64]

[62] On the issue of masters' reputation: M. Fusaro, 'Public Service and Private Trade: Northern Seamen in Seventeenth Century Venetian Courts of Justice', *The International Journal of Maritime History*, 27 (2015): 3–25.

[63] A. Glennie, 'Review of Lowndes & Rudolf: General Average and York-Antwerp Rules', *Edinburgh Law Review*, 23/3 (2019): 461–462.

[64] G. Alfani and V. Gourdon, 'Entrepreneurs, Formalization of Social Ties, and Trust-building in Europe (Fourteenth to Twentieth Centuries)', *The Economic History Review*, 65 (2012): 1005–1028; Wubs-Mrozewicz, 'The Concept of Language of Trust'; Fusaro and Addobbati, 'The Grand Tour of Mercantilism'. On the diversity of risk perception and management: J.-P. Platteau, 'Mutual Insurance as an Elusive Concept in Traditional Rural Communities', *Journal of Development Studies*, 33 (1997): 764–796.

Lex Maritima, Lex Mercatoria and *Early Modern States*

The international nature of Averages allows us to see the interaction of operational convergence and legal pluralism across Europe, providing an alternative perspective on the vexed issue of *lex mercatoria*.[65]

Maritime legislation across Europe was characterized by a general agreement on the underlying principles, which is especially evident when operational elements were concerned, paired with an extreme variety of legal and contractual solutions. Thus, arguably since the time of the *Digest* in late Antiquity, the Mediterranean was characterized both by variant local practices and a common underlying set of principles, much in the same way as these issues developed later in the Baltic and North Seas.[66] The commonalities were indeed many, and this, paired with the wealth of normative evidence characterizing the European maritime legal world since the Middle Ages, has led Albrecht Cordes to argue that "the *lex maritima* thereby functions as a 'key witness' for the *lex mercatoria* because its sources are more tangible than the sources of the *lex mercatoria* and thus should provide documentary evidence".[67] Using Cordes' image, thanks to their longevity Averages can thus be considered as 'expert witnesses' on these issues. And their testimony is unambiguous, as the procedural framework, and the actual legal practice which embodied and enacted this common principle, differed greatly across the continent.

The general agreement on principles was at the heart of GA, and some elements of operational convergence were necessary. Across time, all jurisdictions agree that GA events should be reported in a timely fashion, so the damage report had to be completed in the first port encountered after

[65] A lively synthesis of the contemporary debate on a 'new *lex mercatoria*', in N. E. Hatzimihail, 'The Many Lives—and Faces—of *Lex Mercatoria*: History as Genealogy in International Business Law', *Law and Contemporary Problems*, 71/3 (2008): 169–190.

[66] O. R. Constable, 'The Problem of Jettison in Medieval Mediterranean Maritime Law', *Journal of Medieval History*, 20 (1994): 207–220; for the Baltic and North Sea: E. Frankot, *'Of Laws of Ships and Shipmen'. Medieval Maritime Law and Its Practice in the Towns of Northern Europe* (Edinburgh 2012); and her 'Medieval Maritime Law from Oléron to Wisby: Jurisdictions in the Law of the Sea', in J. Pan-Montojo and F. Pedersen eds., *Communities in European History: Representations, Jurisdictions, Conflicts* (Pisa 2007), 151–172.

[67] Cordes, *Lex Maritima*? 70–71; also Udovitch, 'An Eleventh Century Islamic Treatise', 43.

the accident—normally with the support of local experts, who evaluated the extent and cost of the damages suffered—and then certified by local authorities, and this report had then to be accepted by the authorities of the destination port; hence the embedded transnationality of these legal instruments.[68] The actual apportioning of costs was usually done in the venture's intended final destination, frequently (but not always) where the majority of the cargo receivers were based.

At this stage, the differences between different jurisdictions emerged. In most countries, courts with jurisdiction on maritime matters checked, approved and certified Averages' documentation.[69] Courts, therefore, performed an essential role in overseeing the process; the need to ensure correctness in the paperwork, and propriety and due process in the whole procedure was particularly important given the transnational element, as documentation produced in one jurisdiction needed to be valid in all others. Carlo Targa underlined this element arguing that

> it is not possible in one part of the world to deal with maritime matters in one way, and differently somewhere else, because of the shared interests than many different people can have in the same event.[70]

However, if there was almost universal procedural convergence regarding the opening acts of a GA procedure, from that moment onwards differences started to emerge. The original reports were checked for consistency, especially regarding the narrative of the event; then the bill of lading, and—crucially—the list of expenses which were a direct consequence of the GA act were examined. Then a list of the damages was prepared and, cross-referencing the financial documentation, the approved costs were apportioned among all parties. Which type of expenses were claimable through GA differed between jurisdictions; other

[68] The report was called in Italian '*consolato*', and in English 'sea protest', due to the historical peculiarities of the usage of this term, in this essay I am using instead the more neutral term 'report'.

[69] The exception here is England, where the process was overseen by notaries; on these issues see: G. Pizzoni, 'British Power in the Mediterranean: Sea Protests and Notarial Practice in Nineteenth-century Malta', *The Journal of Imperial and Commonwealth History* (2022), https://doi.org/10.1080/03086534.2022.2086206

[70] Targa, *Ponderationi*, 323–324: "[…] non potendosi, in una parte del mondo, circa la contrattatione maritima operare in un modo e in altra in diverso, per l'interesse comune che tanta gente diversa puonno haver in un istesso fatto".

important differences had to do with the modalities of cargo evaluation and with the percentages of the contributions owed by each party.

The whole system was accustomed to these differences, which were an accepted reality of maritime trade. Litigation of course did happen, but this was a relatively rare occurrence, probably due to the problem of coordinating different parties who could be very distant from each other. When litigation took place, it was generally handled by those same courts which had dealt with the certification stage, and the evidence shows clear awareness by these courts that rules would differ in other places.[71]

The involvement of courts in certifying GA procedures is evidence of how the management of the maritime sector in general, and that of Averages in particular, is a particularly fruitful field for investigating the interaction of state (or municipal) legislative activities—government—and private rules and regulations—governance—as procedures regulating Averages straddled these two sets of rules.[72]

Indeed, it can further be argued that handling and managing risk exposure was a way to buttress the state and gain entry into the corridors of power, as late seventeenth-century French developments clearly exemplify.[73] However, it should also be underlined that states' claims to sovereignty always contained an aspirational element, even more so when applied to merchants and seafarers, the most mobile and slippery of all economic actors.[74]

The current regime under which GA are regulated and settled provides telling evidence of both the unifying aspirations and practical impossibility of a proper *lex mercatoria*.

[71] For example, the Kampen *Gulden Boeck* mentioned that rules on contribution could be different in other ports, on this see the analysis of Dreijer, *The Power and Pains of Polysemy*, 143.

[72] On the intertwinement of mercantile practice and official law: D. De ruysscher, 'Maxims, Principles'.

[73] On these issues is dedicated the essay of Lewis Wade in this volume; see also his *Privilege at a Premium: Insurance, Maritime Law and Political Economy in Early Modern France, 1664-c. 1710* (Unpublished PhD thesis, University of Exeter, 2021); and his article: 'Royal Companies, Risk Management and Sovereignty in Old Regime France', forthcoming in *The English Historical Review*.

[74] A synthetic view of the complexity of states' jurisdictions in contemporary shipping in: J. A. Black, 'A New Custom Thickens: Increased Coastal State Jurisdiction Within Sovereign Waters', *Boston University International Law Journal*, 37/2 (2019): 355–394.

The existence of such divergence in the handling of GA was at the root of the long and complex negotiations among states which occupied the better part of the nineteenth century, leading to a series of international conferences culminating in 1890 with the creation of the first York-Antwerp Rules (YAR). Since then, YARs have been regularly revised, with the most recent edition issued in 2016. These 'rules' (note that these are not 'laws') are managed by the *Comité Maritime International* (CMI), which declares itself to be the oldest organization in the world exclusively concerned with the unification of maritime law and related commercial practices. Article 1 of the CMI Constitution states:

> It is a not-for-profit international organization established in Antwerp in 1897, the object of which is to contribute by all appropriate means and activities to the unification of maritime law in all its aspects. To this end it shall promote the establishment of national associations of maritime law and shall cooperate with other international organizations.[75]

Let us go back to Albrecht Cordes, whose succinct conclusions on the supposed medieval and early modern *lex maritima* well serve as a comment on Averages and their application:

> To encounter a great degree of continuity and uniformity on the side of the challenges must not be confused with the variety of responses tried out in the attempt to face that challenge. The bottom line remains the same: not a single example of a uniform legal response to a specific challenge of maritime trade law has ever been found.[76]

[75] https://comitemaritime.org/about-us/; some short official, histories of the *Comité* are available at: https://comitemaritime.org/about-us/history/ (last accessed 18 December 2021).

[76] Cordes, 'Lex Maritima?', 80; also A. Cordes, 'The Search for a Medieval *Lex mercatoria*', *Oxford U Comparative L Forum* 5 (2003), at: https://ouclf.law.ox.ac.uk/category/authors/albrecht-cordes/ (last accessed 18 December 2021); E. Kadens, 'The Myth of the Customary Law Merchant', *Texas Law Review*, 90 (2012): 1153–1206; D. De ruysscher, 'Conceptualizing *Lex Mercatoria*: Malynes, Schmitthoff and Goldman Compared', *Maastricht Journal of European and Comparative Law*, 27/4 (2020): 465–483.

Conclusion

Storms at sea were a popular subject for Baroque music, and the pieces' compositional structure would usually concentrate on the naturalistic element. Central was the developmental arc of the storm itself, the composer's focus tightly directed at replicating the relentless strength of natural phenomena from their slow build-up into frenzied fury, followed by their winding down, heralding the return of calm. Baroque music's passion for the tempest—both as metaphor and as representational challenge—was always matched to a tight formal frame, as if unruliness could come to the fore and preserve its aesthetic power only when mediated by order.[77] This fascination with the tempest did not abate entirely, even with the advent of the classical style. Joseph Haydn's Symphony no. 39 (known as the '*Tempesta di mare*') has a slightly different structure; the storm is indeed there and develops along traditional musicological structures, but the piece has puzzled critics, as the highly kinetic storm depiction alternates with movements with formalized balletic elements, a precise and even precious minuet form which somehow does not seem to fit.[78] For me it embodies a perfect representation of General Average, a complex and messy event punctuated and resolved by moments of high procedural formality.

The utter dominance of the force of nature in maritime trade is a constant over time, its taming a perennial aspiration, careful managing of its consequences a necessity. In the early modern period maritime disasters

[77] I warmly thank Alessandra Campana for our conversations sharing her expertise on Baroque music forms and storm representations.

[78] The peculiar structure of the piece is usually attributed to "Haydn's search for new narrative strategies for a genre caught up in the tensions between the boisterous concert opener, courtly representation, the bourgeois concert hall and the demands of "connoisseurs"", see: F. Diegarten, 'Time Out of Joint—Time Set Right: Principles of Form in Haydn's Symphony No. 39', *Studia Musicologica*, 51/1–2 (2010): 109–126, 109.

affected not just trade in and of itself; rather, their consequences reverberated across the economy.[79] Risk in all its multifaceted expressions is a constituent element of human activities, its economic repercussions a constant societal concern through time and space.

I started this essay noting how the centrality of risk reduction is strongly embedded in every aspect of the maritime enterprise, as any seaborne activity entails high levels of exposure to danger. Risk has also been central to the complex relationship between (maritime) commercial enterprise and its ethical and moral dimensions. During the Middle Ages, in Giacomo Todeschini's words, "it was precisely the constant risks to which [merchants] were exposed that legalised, in the eyes of canonists and theologians, especially Franciscan ones, [merchants'] economic virtue".[80] Francesca Trivellato recently reminded us how "modern scholars of commercial and maritime law are accustomed to thinking that by the seventeenth century, this field of inquiry had entered the sphere of politics and left that of theology",[81] whilst in actual practice the ethical framing of economic activities has been a most active

[79] On the effect of maritime disasters in money supply shocks see: A. Brzezinski, Y. Chen, N. Palma, and F. Ward, 'The Vagaries of the Sea: Evidence on the Real Effects of Money from Maritime Disasters in the Spanish Empire', Working paper No. 170, European Economic History Society, available at: https://econpapers.repec.org/paper/heswpaper/0170.htm (last accessed 30 December 2021).

[80] G. Todeschini, *Ricchezza francescana. Dalla povertà volontaria alla società di mercato* (Bologna 2004), 133; also his *I mercanti e il tempio. La società cristiana e il circolo virtuoso della ricchezza fra Medioevo ed Età Moderna* (Bologna 2002). Particularly important are the works of Giovanni Ceccarelli: 'Le logiche del rischio economico fra XIII e XV secolo', in A. De Vincentiis ed., *Il moderno nel medioevo* (Rome 2010), 201–212; 'Quando rischiare è lecito. Il credito finalizzato al commercio marittimo nella riflessione scolastica tardomedievale', in S. Cavaciocchi ed., *Ricchezza del mare, ricchezza dal mare* (Florence 2006), 1187–1200; 'Risky Business: Theological and Canonical Thought on Insurance from the Thirteenth to the Seventeenth Century', *Journal of Medieval and Early Modern Studies*, 31/3 (2001): 607–658, the latter especially for its analysis of how 'risk' came to assume a 'price'.

[81] F. Trivellato, *The Promise and Peril of Credit: What a Forgotten Legend About Jews and Finance Tells Us About the Making of Commercial Society* (Princeton 2019), 56. An issue also raised by W. Decock, 'In Defense of Commercial Capitalism: Lessius, Partnerships and the *Contractus Trinus*', Max Planck Institute for European Legal History Research Paper available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2162908&download=yes (last accessed 20 December 2021).

of area of debate throughout the history of economic thought, as it is in contemporary politics and policy. In the middle of the twentieth century, for what will most likely prove to be a short period, the paradigm of *homo oeconomicus* triumphed in the developed world, and consequently in its scholarship.[82] Single-minded concentration on the rational pursuit of economic success, through strategies and policies aimed at the maximization of economic profit, was the hegemonic paradigm.

Contemporary societies are now confronted with truly global risks, from climate change and its effects to increasing societal destabilization resulting from growing inequalities. Confronted with the systemic financial crisis afflicting the current hegemonic variety of capitalism, and with increasing concerns especially about global inequality, the classic separation between 'economics' and 'morality and ethics' is blurring again.[83] Once considered one of the pillars of rational modernity, this separation is now increasingly seen as a problematic fissure with potentially dangerous societal consequences. Risk and profit have always been privileged stages where societal ethical values are at the forefront of both economic and political debates. The way in which the associated ethical questions are posited and solved provides an additional dimension. This reframing of the discourse has advanced since the 2008 financial crisis, with its critique of unbridled capitalism, leading to a new impetus in the search for more ethical investments which would lead to more sustainable and equitable economic and social development.[84]

I mentioned earlier how GA has its critics within the maritime sector. However, it is possibly more important to note how the equitable principle behind contemporary GA is also finding new support precisely

[82] The literature on this concept is daunting large, for a recent critical synthesis: D. A. Urbina and A. Ruiz-Villaverde, 'A Critical Review of *Homo Economicus* from Five Approaches', *The American Journal of Economics and Sociology*, 79/1 (2019): 63–93 and bibliography therein quoted.

[83] On rising inequality, just one example which had a massive impact well beyond academia: T. Piketty, *Capital in the Twenty-First Century* (Cambridge, MA 2014) and his *Capital and Ideology* (Cambridge, MA 2019).

[84] M. Mazzucato, *The Value of Everything: Making and Taking in the Global Economy* (London 2018); and her *Mission Economy: A Moonshot Guide to Changing Capitalism* (London 2021).

because of its ethical implications. Gotthard Mark Gauci, one of the critical voices regarding GA, has recently admitted that

> whilst cumbersome and a cause of delay, general average is intended to avoid an advantage for one party at the expense of another; indeed there is a strong argument that a general average contribution to a general average sacrifice can be justified as an operation of the gain-based principle that a legal remedy should be available for *unjustified enrichment*.[85]

Mutatis mutandis, the principle of *aequitas* is re-entering contemporary economic policy discourse, from the growing interest in equity-based investments inspired by traditional Islamic law investment instruments, to the search for new ways of sharing profits and losses.[86] Beyond the maritime sector, and within the wider area of transport law, more sustainable transport solutions are drawing inspiration from the mutuality of GA sharing, and the peculiarities of its risk community, to find ways to allocate costs in a more equitable and sustainable manner.[87] Within present discussions on reforms in bankruptcy regulations in the US, the GA principle is being proposed as an example, as it would dictate that stakeholders share costs and losses in proportion to the value of their holdings.[88]

It should be clear now that the history of Averages has much to contribute not just to the historiography of risk management, but also to its future developments, above and beyond the maritime sector. Maritime history for a long time has been a self-contained field, and its relatively recent entry into the mainstream should remind us how embedded it

[85] Gauci, 'Of Piracy and General Average', 249; Italics mine.

[86] S. Nazim Ali, W. Tariq and B. Al Quradaghi eds., *The Edinburgh Companion to Shari'Ah Governance in Islamic Finance* (Edinburgh 2020); N. Mazuin Sapuan, 'An Evolution of *Mudarabah* Contract: A Viewpoint from Classical and Contemporary Islamic Scholars', *Procedia Economics and Finance*, 35 (2016): 349–358; N. H. D. Foster, 'Islamic Perspectives on the Law of Business Organisations I: An Overview of the Classical Sharia and a Brief Comparison of the Sharia Regimes with Western-Style Law', *European Business Organization Law Review*, 11 (2010): 3–34.

[87] Julia Hörnig (Erasmus Universiteit Rotterdam) is currently preparing a project on these issues.

[88] A. J. Casey, 'Chapter 11's Renegotiation Framework and the Purpose of Corporate Bankruptcy', *Columbia Law Review*, 120/7 (2020): 1709–1770.

has always been in European historiography. It is no coincidence that since the times of Plato, the ‘ship of state’ is the arch-metaphor for good management and respect for reciprocal obligations and needs within human societies.[89]

[89] Plato, *The Republic*, Edited and translated by C. Emlyn-Jones, W. Preddy (Cambridge, MA 2013), 6: 488a–89a.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

General Average and All the Rest: The Law and Economics of Early Modern Maritime Risk Mitigation

Ron Harris

General Average is probably the longest existing maritime trade institution, first used by Greek and Roman sailors in antiquity and still in use today by the global maritime industry. Premium-based marine insurance is much younger. The first evidence for its use is from around 1300 CE. Why did the two institutions originate more than a millennium apart? This timing question cannot be resolved solely by analysing the primary historical records. The answer to this significant question was not written down by contemporaries and will not be found in the texts they left behind. We need theories in order to approach it. While theories

I would like to thank Giovanni Ceccarelli, Maria Fusaro, Roy Kreitner, Robert Scott, participants in the *"Sharing risk: General Average, 6th-21st Centuries" Conference* (Genoa, Archivio di Stato, 16–18 May 2019) and anonymous reviewers of the article for valuable comments, references and suggestions and Anna Ashurov and Maya Hay for the excellent research assistance.

R. Harris (✉)
Tel-Aviv University, Tel Aviv, Israel
e-mail: harrisr@tauex.tau.ac.il

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_2

about the mitigation of risk might not be the only relevant theories for addressing the question, they are sufficiently instructive to serve as the core of this article.

The fastest and least costly way of sending cargos in antiquity was by ships. A geospatial model, created by Walter Scheidel and Elijah Meeks, shows very vividly how travel time and transportation costs rose very steeply in the Roman world once one was getting from the Mediterranean into the surrounding overland routes.[1] We do not have a similar reconstruction of medieval travel time and costs. We can guess that the general picture is similar; the use of natural wind energy, rather than animals that had to be fed, and the larger scale of ships available, compared to packs and wagons, saved time and costs, as they did in the Roman era. The relative differences between sea and overland travel were even higher in the Medieval era due to the absence of well-developed roads and facilities, and the political instability after the fall of Rome.[2] The use of maritime transportation created an opportunity for substantial trade advantage and hefty profits.

However, maritime trade faced the gravest challenges and the highest risks of all sectors in pre-modern economies. Ships were foundered and wrecked, pirates and foreign rulers could seize goods, cargoes could be damaged, lives could be lost, loans could be negated, agents could abscond, market prices could fluctuate, and demand for goods in the marketplace could dissipate. In a meta-survey of the findings of marine archaeology of the Mediterranean, Andrew Wilson identifies 1646 shipwrecks for the period before 1500 CE.[3] This is the lower bound for actual ship loss. More shipwrecks are likely to be discovered as marine archaeology expands its underwater surveys and excavations. Other shipwrecks will never be discovered because they did not survive. Foundering was not the only risk faced by maritime trade; it was the one better captured by

[1] Walter Scheidel and Elijah Meeks, 'ORBIS: The Stanford Geospatial Network Model of the Roman World', *Stanford University Libraries*. http://orbis.stanford.edu (last accessed 30 December 2021); W. Scheidel, 'The Shape of the Roman World: Modelling Imperial Connectivity', *Journal of Roman Archaeology*, 27/1 (2014): 7–32.

[2] R. W. Unger ed., *Shipping and Economic Growth 1350–1850* (Leiden 2011).

[3] A. Wilson, 'Developments in Mediterranean Shipping and Maritime Trade from the Hellenistic Period to AD 1000', in D. Robinson and A. Wilson eds., *Maritime Archaeology and Ancient Trade in the Mediterranean* (Oxford 2011), 33–59.

modern archaeologists and historians. Jettison, damage to cargo, piracy, business losses were not well recorded but were prevalent.

The environment of maritime trade activities was, in economists' terms, one of uncertainties, high risks, vast information asymmetries, augmented agency problems, weak enforcement of contracts, and fragile protection of property rights.[4] Dealing with such a tough economic environment was a foremost institutional challenge for pre-modern contemporary merchants, jurists, and rulers. Maritime trade is where the institutional cutting-edge could be found. This is where new and innovative organizational solutions were designed.

The application of Frank Knight's theoretical framework, which distinguishes between uncertainty and risk, can take us a long way in answering this question. It focuses on the ability to price risks. As we shall see, Knight's theory will not take us all the way. I will next show that by introducing Douglass North's theory of institutional evolution, both the historical story and the theoretical framework get murkier. I will then add Robert Scott's contracts theory. I will offer a synthesis on both levels, namely on how to overcome the historical puzzle and how to reconcile the theories. After combining the theories into a more comprehensive framework, we can utilize this framework in order to analyse the origins and early evolution of insurance, General Average, and additional maritime trade institutions. I will deal with three of the most renowned of these institutions: the sea loan, the *commenda* and the business corporation.

This essay does not aspire to offer fully fledged answers to the questions posed above. Instead, it is a demonstration of the value of the theoretical framework offered here in generating research questions and in orientating the historical research. A more systematic and comprehensive application of the theoretical framework offered here for the available historical records is required in order to better base and exhaust the historical insights. This essay originated in a key-note lecture, delivered by an outsider to the field that deals with similar puzzles in different historical contexts, does not report the findings of actual historical research. It is programmatic, setting up the stage in terms of questions. Answers to these questions will have to be provided by historians specializing in the

[4] For a parallel analysis of risk and risk mitigation devices in the same period, see Maria Fusaro and Giovanni Ceccarelli contributions in this volume.

period, such as the scholars taking part in the European Research Council project on General Average (*AveTransRisk*), led by Maria Fusaro.[5]

Frank Knight on Uncertainty and Risk

Frank Knight (1885–1972) is famed for conceptualizing a distinction between risk and uncertainty. His book in which he created this distinction—*Risk, Uncertainty and Profit*—is one of the most canonic books in economics and beyond.[6] Knight explains:

> The practical difference between the two categories, risk and uncertainty, is that in the former the distribution of the outcome in a group of instances is known (either through calculation *a priori* or from statistics of past experience), while in the case of uncertainty this is not true, the reason being in general that it is impossible to form a group of instances because the situation dealt with is in a high degree unique.[7]

Knight identifies three possible states of the world: (1) a priori probabilities which are derived deductively, as in rolling a dice; (2) statistical probabilities which are generated by empirical evaluation of relative frequencies, as in life insurance; and (3) estimates, in which "there is no valid basis of any kind for classifying instances".[8] Knight identified risk with points 1 and 2 and uncertainty with 3. From a different perspective, Knight is designated by "risk" situations, in which insurance markets can exist, and by "uncertainty" situations, in which insurance markets cannot.

Knight was not a historian. He does not offer his own historical narrative of the shift of environments from uncertainty to risk. He does not offer a historical account of the origins of marine insurance. One insight is apparent in Knight's framework. An economic environment cannot move from uncertainty to risk by developing insurance. In an environment of uncertainty, premium-based third party marine insurance (hereafter premium-based marine insurance or simply marine insurance) cannot

[5] 'Average-Transaction Costs and Risk Management During the First Globalization (Sixteenth-Eighteenth Centuries)', https://humanities.exeter.ac.uk/history/research/centres/maritime/research/avetransrisk/.

[6] Having 22,000 citations.

[7] F. H. Knight, *Risk, Uncertainty, and Profit* (Boston 1921), 118.

[8] Knight, *Risk*, 113.

be developed and offered. Insurance is not the facilitator; according to Knight, it is the outcome. The causation runs the other way around. The birth and further development of marine insurance is a response to a shift of the trade environment from one riddled with uncertainty to one in which uncertainties were already converted to quantifiable risks. Knight does not offer a coherent dynamic theory for the environmental shift. One has to infer the dynamics from his quite static and abstract analysis. Once applying Knight's theoretical lens, we know where to look for the dynamics. We have to study the informational front. The prohibitive factor that prevents the development of marine insurance is the inability to price maritime risks. The solution was to have more information that would gradually convert uncertainty into risk. Could medieval merchants achieve this? In other words, was increased information exogenous or only somewhat endogenous to the institutional dynamics related to the development of marine insurance? I will get back to these questions later.

Note that, for Knight, insurance is not an invention. It is not the case that, until a certain point in the historical flow, merchants did not understand that risk is a prohibitive or costly hurdle that had to be mitigated in order to expand trade further. It is also not the case that merchants did not know how to organize insurance firms or how to draft insurance contracts. Knight does not consider the need to develop a mathematical understanding of probabilities and their calculations. Even if they fully understood the importance of risk mitigation and had the mathematical, organizational, and legal know-how, they could not invent insurance because they were unable to price the risk premium.

Douglass North on Transaction Costs and Risk Spreading

Let's juxtapose now Knight's framework with that of Douglass North (1920–2015).[9] North was another famed economist. He was economics Nobel Laureate (in 1993) for "renewed research in economic history by applying economic theory and quantitative methods in order to explain economic and institutional change".[10] North placed on his research agenda institutions, organizations, contracts, and transaction costs, rather than the information needed for pricing. His framework is explicitly dynamic and historical, though admittedly not based on detailed archival research but rather on a stylized narrative. Let's see whether North's starting point can provide us with some of the dynamic dimensions and historical specifications that Knight failed to provide. We'll do it initially with respect to insurance, as this institution was important for both Knight and North.

For North, institutional evolution (in tandem with technological innovation) drives economic development.[11] "Institutions exist to reduce the uncertainties involved in human interaction".[12] The contribution of institutions to economic development is generated by their role in reducing

[9] Knight is identified by some scholars as related to the institutionalist school within economics. North is identified as related to the new institutionalist school. One could view North as continuing Knight's institutionalist tradition. But others argue that Knight was not really an Institutionalist and that North's New Institutionalism is not built upon old Institutionalism. On these issues: G. M. Hodgson, 'Frank Knight as an Institutional Economist', in J. E. Biddle et al. eds., *Economics Broadly Considered: Essays in Honor of Warren J. Samuels* (London 2001), 64–93; P. F. Asso and L. Fiorito, 'Was Frank Knight an Institutionalist?', *Review of Political Economy*, 20/1 (2008): 59–77.

[10] R. W. Fogel and D. C. North, 'The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 1993', *The Nobel Prize*. https://www.nobelprize.org/prizes/economic-sciences/1993/summary (last accessed April 30, 2020).

[11] North's definition of institutions is: 'Institutions Are the Rules of the Game in Society, or More Formally, Are the Human Devised Constraints That Shape Human Interaction', in D. C. North ed., *Institutions, Institutional Change and Economic Performance* (Cambridge 1990), 3. A more recent influential definition is that of Avner Greif, 'An Institution Is a System of Social Factors That Conjointly Generate a Regularity of Behavior', in his *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade* (Cambridge 2006), 30.

[12] North, *Institutions, Institutional Change*, 25; D. C. North, *Understanding the Process of Economic Change* (Princeton 2005); D. C. North and R. P. Thomas, *The Rise of the Western World: A New Economic History* (Cambridge 1973).

transaction costs and facilitating transactions. Institutional innovations lowered transaction costs, according to North, along three margins: (1) increasing mobility of capital; (2) lowering information costs; and (3) spreading risks. We are interested here in the third.

The institutional evolution that led to the increase in capital mobility included the development of methods for the evasion—and, eventually, the repeal—of usury laws, the development of bills of exchange, better enforcement of contracts, and the development of devices for better monitoring of agents. The lowering of information costs was achieved by the invention of the print, the publication of price and exchange lists, the standardization of weights and measures, a postal system, and more. Insurance and portfolio diversification are the two institutional innovations for spreading and reducing risk, and by this, for reducing transaction costs. The development of marine insurance is a prime example of a risk spreading institutional innovation that lowers transaction costs and enhances economic development.[13]

According to Knight, only after uncertainty is converted into risk does insurance emerge. Do we face here a theoretical contradiction between Knight and North? For Knight, insurance is evidence for the conversion of uncertainty into risk. It is an outcome of the conversion. For North, insurance is a means for transforming uncertainty into risk. Is insurance the institutional innovation that facilitates the conversion of uncertainties into risks? If not, how do we get from a world of uncertainties to a world of risks? So, is this a disagreement between Knight and North as to what came first, the chicken or the egg?

Robert Scott on Contracts Under Uncertainty

While Knight is interested in pricing risk that enables insurance, North is interested in the evolution of the institutions that supply insurance. He takes us in this direction but not all the way. He does not offer a theory for the supply of insurance as an institutional innovation. He does not analyse the organizational and contractual details. Robert Scott, from Columbia Law School, a leading theoretician in the fields of contracts and commercial transactions, can take us the rest of the way from pricing to contracts. Scott has developed over the years, with various co-authors, a theory

[13] North, *Institutions, Institutional Change*, 126–127.

about the different types of contracts that will be developed and used in different environments.[14] Scott is not a historian. He is interested in the changes that occur as a system moves from the present into the future. This move often involves the introduction of new and experimental technologies, the entrance into new markets and the use of innovative business methods. Scott provides an account of the change in the production of contracts along two continuums, the shift from low uncertainty to higher uncertainty environments, and the shift from thinner (lower scale) to thicker (higher scale) markets. For Scott, uncertainty increases with innovation. Scale increases with maturation. I will use here mainly the first dimension and, along with it, a reverse shift. For me, the general historical shift of markets is from higher uncertainty to lower uncertainty. For Scott, it is the other way around. The difference stems from the fact that I, as a historian, am interested in the longer-term historical shifts and am not focusing only on the initiation stage but also on the maturing stage of any new technology or method.

Scott's prediction is that, along with the uncertainty to certainty dimension, contracts will evolve from collaborative contracts, that braid formal and informal enforcement and sanctions, to long-term relational contracts that set general standards of behaviour, such as best effort, and finally, to complete bespoke contracts that cover numerous contingencies.[15] The rationale for this evolution is that the lower the uncertainty is,

[14] A. Schwartz and R. E. Scott, 'Contract Theory and the Limits of Contract Law', *Yale Law Journal*, 113/3 (2003): 541–619; R. E. Scott and G. G. Triantis, 'Anticipating Litigation in Contract Design', *Yale Law Journal*, 115/4 (2005): 814–879; R. J. Gilson, C. F. Sabel, and R. E. Scott, 'Braiding: The Interaction of Formal and Informal Contracting in Theory, Practice and Doctrine', *Columbia Law Review*, 110/6 (2010): 1377–1447; S. J. Choi, G. M. Gulati, and R. E. Scott, 'The Black Hole Problem in Commercial Boilerplate', *Duke Law Journal*, 67/1 (2017): 1–77; R. E. Scott, 'The Paradox of Contracting in Markets', *Law and Contemporary Problems*, 83 (2020): 71–99.

[15] Scott's analysis has a second dimension, the scale of the market dimension. Along the continuum of this dimension, contracting will shift from atomistic bilateral to multilateral network embedded contracting as the markets become thicker. The rationale for this is that the thinner the market, the more difficult it is to match several parties to jointly run a transaction, while the more traders involved in a market and the more frequent the trade transactions are, the more possible it is to run multilateral transactions to do this in networks, and the ticker the markets, the more self-sustained are the networks. The network renders the contracts effective by allowing the monitoring of breaches and enforcing of contracts. As the uncertainty in thick markets decreases, networks will evolve from ones in which regulatory state intervention (a spider) is necessary in order to hold the network together, to ones in which the state is absent (spider less networks), and this

the more feasible it is to draft contractual terms ex-ante, while the higher the uncertainty, the more cost-efficient it is to draft simple contracts and delay the costs to the ex-post litigation stage. Scott's contribution over Knight is that there are ways to draft contracts even under uncertainty. Contracts can be drafted in a manner that facilitates pricing under uncertainty. He is more concrete, compared to North, about how to do this, namely which types of contracts would fit each environment best. Scott's theory can guide historical research to look for a specific direction of change over time. However, it cannot provide concrete predictions as to which form of contract is expected to be used at a specific point in time.

By now, we realize that information is pivotal to all three theoretical frameworks. For Knight, information about probabilities is the key. For North, one of the three transaction costs margins, next to risk spreading, is information costs. For Scott, the information determines the suitable contract type. However, Scott also views contracts as a means for generating information. Contracts can require one of the parties to provide information to the other, say by way of requiring agents to report to principals regularly and to provide detailed itinerary and accounts. Scott's contribution, in this respect, is that his model turns information into an endogenous factor.

Knight, North, Scott and the Origins of Marine Insurance

Let's use my integration of the uncertainty-risk theoretical frameworks developed by Knight, North, and Scott for explaining the origins and timing of premium-based marine insurance. We'll start with insurance rather than General Average because it is in the centre of the analysis of Knight and North and yields itself more conveniently for analysis. Premium-based marine insurance first appeared in the Italian city-states of

serves as a conduit for the flow of private information to networks in which the network is based on private ordering and dispute resolution. Because this article is not interested in the development and role of networks, this second dimension will only feature in it in an ancillary way.

the thirteenth to fifteenth centuries CE Mediterranean.[16] It spread northwards to Antwerp, Amsterdam, and London in the following centuries.[17] Premium-based marine insurance allowed merchants to convert more considerable contingent losses into a smaller fixed charge. How could Mediterranean maritime merchants cross the threshold and move from an environment of unquantifiable uncertainty into an environment of measurable risks?

Knight explains his prime route from uncertainty to risk: "The amount of uncertainty may, however, be reduced in several ways, as we have seen. In the first place, we can increase our knowledge of the future through scientific research and the accumulation and study of the necessary data".[18] The pricing of the premium depends upon the measurement of probability based on a fairly accurate grouping into classes. Risks did not have to be calculated on the precise individual probability of a single merchant to lose his cargo on the seas, but could also be done at the group level, by finding the proportions of the members of the group which may be expected to lose their cargo. The premium could be set in a heuristic manner, which is not based on a formal concept of probability and mathematical calculations, called by Giovanni Ceccarelli "proto-probabilistic" mathematical thinking or "pre-actuarial" stage in insurance.[19] He shows that the shift from viewing the sinking of a ship

[16] L. Piccinno, 'Genoa, 1340-1620: Early Development of Marine Insurance', in A. Leonard ed., *Marine Insurance: Origins and Institutions, 1300–1850* (Basingstoke 2016), 25–45.

[17] D. De ruysscher, 'Antwerp 1490–1590: Insurance and Speculation', in Leonard ed., *Marine Insurance*, 79–105; J. Puttevils and M. Deloof, 'Marketing and Pricing Risk in Marine Insurance in Sixteenth-Century Antwerp', *The Journal of Economic History*, 77/3 (2017): 796–837; S. Go, *Marine Insurance in the Netherlands 1600–1870: A Comparative Institutional Approach* (Amsterdam 2009); G. Rossi, *Insurance in Elizabethan England: The London Code* (Cambridge 2016).

[18] Knight, *Risk*, 179. It does not follow that insurance markets will necessarily exist. Other problems, such as moral hazard, can prevent them from developing. Yet, other solutions, for example organizational solutions of grouping together risks into a single firm, can emerge.

[19] G. Ceccarelli, 'The Price for Risk-Taking: Marine Insurance and Probability Calculus in the Late Middle Ages', *Journ@l Électronique d'Histoire des Probabilités et de la Statistique*, 3/1 (2007), available at: http://eudml.org/doc/130865 (last accessed 20 December 2021); G. Ceccarelli, 'Risky Business: Theological and Canonical Thought on Insurance from the Thirteenth to the Seventeenth Century', *Journal of Medieval and Early Modern Studies*, 31/3 (2001): 602–652, 607.

as a matter of god's will or pure luck (that could at most be gambled about) to one that views it as a matter of statistical probabilities (mathematically trained insurance actuaries could price that) was incremental. The insurer had to convince the insured that there was a fairly plausible contention between premium contributions and actual risks, that the insured are bearing a fair share of the burden.[20] In a competitive insurance market, the insurer also had to be able to set the price of the risk premium so that it would be sufficiently accurate and competitive, subject the insurance contract to low costs, and enable legal enforcement and effective dispute resolution in the event of disagreements.

A first way identified by Knight for turning uncertainty into risk is by a systematic collection of data about risks. Knight did not develop the distinction between information as non-excludable public good and information as an excludable private good, nor between public gathering and production of information by rulers or municipalities and information gathered by individual merchants. Later scholars did. The development of the Italian city-states supported the information gathering assistance they provided in their hometown, on board ships, and by consuls in overseas ports. It facilitated a more systematic gathering of the fortunes of ships and their cargos and the ensuing losses. This constituted part of the shift from the environment of uncertainty to the environment of risk.

A second way hinted by Knight is by the faster circulation of information due to the increased level of trade. The thickness and scale of trade increased with the commercial revolution. Longer length spans of repeated voyages to the same destinations, higher frequency of voyages, thicker trade networks, and larger commercial and banking family firms gradually led to the accumulation of sufficient information about the a priori probabilities. Knight has in mind the thickness of trade in goods, not of insurance.[21] As we shall see, Scott has in mind the thickness of the insurance market as an information generator.

[20] R. Z. Friedman, *Probable Justice: Risk, Insurance, and the Welfare State* (Chicago 2020).

[21] Similar analysis along the thinness to the thickness dimension was conducted by Rosenthal and Wong. They predict that thicker markets will be able to rely on informal reputation-based enforcement, whereas thinner markets will have to resort to formal legally based enforcement, see J.-L. Rosenthal and R. Bin Wong, *Before and Beyond Divergence: The Politics of Economic Change in China and Europe* (Cambridge, MA 2011).

A third related way identified by Knight for reducing uncertainty is increased control over the future. Applying this to maritime trade would involve the building of sturdier ships, the elimination of piracy, the setting of international law of naval warfare, the production of better weather forecasts and the use of safer sea routes.[22] Once more information about maritime events becomes available through any of the three ways, the environment becomes one of risk rather than uncertainty. Premium insurance soon followed. Transaction costs probably decreased, and economic outcomes improved. The distinction between this third way and the two previous ways of moving from uncertainty to risk is that in the first two, the frequency of negative maritime events is better measured, and in the third, the overall number of negative events is reduced.[23]

Information gathering can be endogenous to trade, as increasing frequency of voyages to the same destinations and denser trade networks produce more positive and negative events on which probabilities can be calculated. It can be exogenous to trade, say through more investments by rulers and municipalities in information gathering. Knight reminds us that information is not a free lunch, as the gathering involves costs.

While Knight says that insurance is the outcome of the conversion of uncertainty into risk, North says that Insurance is a solution. North acknowledges that the development of insurance is complicated, yet he does not offer a plausible path for its origins and early development.[24] Scott offers such a gradual and relatively plausible and predictable path. The first insurance contracts are predicted by Scott to have been individually tailored. Later insurance contracts are predicted to have been repetitions of previous contracts and eventually boiler-plate standard form insurance policies. The first insurance contracts were likely to cover only one scenario, later contracts a handful of scenarios of damages or loss. More mature insurance contracts were likely to be based on the prediction of numerous likely scenarios and responded to the various eventualities by many if–then clauses. Insurance contracts were likely to evolve into

[22] See the contribution of Andrea Addobbati in this volume.

[23] Knight mentions two more ways for reducing uncertainty: slowing up the march of progress and the pooling together of activities into larger organizations. We will turn to the latter later on.

[24] A. B. Leonard, 'Introduction: The Nature and Study of Marine Insurance' (in Leonard ed., *Marine Insurance*, 3–22), shows that North's historical analysis has more value as an agenda setter than as a detailed historical research.

longer and more detailed contracts gradually. It was unlikely that the first insurance contracts included general standards saying that the insurer will cover every damage, every maritime damage or any damage that was not caused by the insured or due to the negligence of the insured.[25] All of these predictions can and should be put to historical examination. There is a significant corpus of insurance contracts that survived in notarial and municipal archives in Italian city-states, and they can be examined using these theoretical insights and predictions.[26]

Four factors complicate the theory-informed study of the origins of insurance based on insurance contracts. First, most contracts did not survive. Second, contracts were also drafted to bypass usury laws and some of their clauses reflect this rather than dealing with information deficiencies. Third, insurers had to find ways to deal with moral hazard problems, which are distinct from pure information problems. Fourth, some of the contractual terms were set in city customs and regulations, and a study of these has to complement the text of the insurance contracts. These complicating factors should not discourage historians of insurance. They could be dealt with in a variety of ways.[27]

While the development of the form of insurance contracts can be predicted by applying the above theoretical frameworks, the timing of its first appearance is not well postulated by the theory of either Knight, North, or Scott. For Knight, there are two states of the world—uncertainty and risk—and the only way to know that we moved from the

[25] Such contracts meant that the contracting costs were shifted from the ex-ante drafting stage to the ex-post litigation stage. But, as we learned from Knight, insurance cannot be priced under uncertainty. It seems as though delaying the costs from the front-end to the backend is not a solution for pricing the insurance contracts.

[26] F. Edler de Roover, 'Early Examples of Marine Insurance', *The Journal of Economic History*, 5/2 (1945): 172–200; H. O. Nelli, 'The Earliest Insurance Contract. A New Discovery', *The Journal of Risk and Insurance*, 39/2 (1972): 215–220.

[27] Another aspect that this article does not deal with is moral hazard. Moral Hazard is the possibility that once insured, the policy holding trader will not care whether he gets the goods or the insurance indemnification. Because of this, he will not try to mitigate maritime risks and avoid damages to the goods. Moral hazard problems might be prohibitive to the development of insurance markets. Moral hazard can be, at least, partially offset contractually. The development of contractual responses to moral hazard problems is a worthy topic of historical investigation. One example from a later period is C. Kingston, 'Marine Insurance in Britain and America, 1720–1844: A Comparative Institutional Analysis', *The Journal of Economic History*, 67/2 (2007): 379–409. Similar investigations can be conducted for the earlier history of marine insurance as well.

former to the latter is by observing the appearance of insurance.[28] For North and Scott, the shift is gradual and continuous. One can observe a gradual evolution of insurance contracts. The timing of the appearance of insurance relates to the reduction of uncertainty, which in turn relates to the increased circulation of information. This increase, according to Scott, is partly exogenous—the increased thickness and scale of trade created more information about the probability of negative events. It is also partly endogenous, as the experimentation with insurance contracts and the learning by doing or drafting them generated information. They can, for example, generate information by requiring the policyholder to provide information at the underwriting stage or the claim stage. Such requirements would require the policyholder to collect, record and report information that would not absent the contract. The exact timing in which premium marine insurance was likely to first appear is not postulated by theory. We don't know exactly how much information of which type is sufficient for pricing insurance accurately enough and for drafting clauses that would cover sufficient if–then contingencies. Even if we knew how much information was theoretically needed, we don't know to measure how much of the relevant information was actually available for would-be insurers at any point in time. Yet, it will not come as a surprise that the commercial revolution of the eleventh to thirteenth centuries, that took place mainly in the Italian city-states of Venice, Florence, Genoa, Pisa, produced increasing trade information and reduced uncertainty to a level that gave rise to the first insurance contracts.[29] We don't know how far into the revolution, the informational environment became sufficiently thick and certain to give birth to insurance.

The Roman Empire poses a challenge to our Knight-based-analysis, which explains the origins of risk-mitigating institutions, such as insurance, as an outcome of the environmental shift from uncertainty to risk. The enigma addressed in this section is why institutions that were developed in the commercial revolution did not develop accordingly in the

[28] Knight does not account for the possibility that insurance will not be practised for reasons other than absence of information, say lack of demand, inability to perceive proto-probabilistic mathematics, organizational obstacles, or theological or legal prohibition.

[29] R. S. Lopez, *The Commercial Revolution of the Middle Ages, 950–1350* (Cambridge 1976); F. C. Lane, *Venice: A Maritime Republic* (Baltimore 1973); Greif, *Institutions and the Path to the Modern Economy*; P. R. Milgrom, D. C. North, and B. R. Weingast, 'The Role of Institutions in the Revival of Trade: The Law Merchant, Private Judges, and the Champagne Fairs', *Economics and Politics*, 2/1 (1990): 1–29.

previous transition from uncertainty to risk, which occurred during the rise of the Roman Empire. Our discussion, so far, focused on the transition from the Middle Ages to the early modern world. It assumed a linear progression of the level of available information and correspondingly of trade institutions. However, the informational environment of trade in the Mediterranean did not progress linearly from antiquity to the commercial revolution of the Middle Ages, viz. the timing of the birth of insurance. Its progress can presumably be described as an upward sine wave in the Greek and early Roman era, a downward towards the collapse of the Roman Empire that continued into the post-Roman era, and an upwards wave with the rise of Islam and the Italian commercial revolution. The second peak was probably lower than the first (due to the segmentation of the sea to Arab and Latin dominated regions, if not for economic development level as well).

By the first and second centuries CE, the Mediterranean was *Mare Nostrum* ("Our Sea"), an internal sea of the Roman Empire. Trade networks were thick, the scale of activity was high, Imperial infrastructure was well developed, and looting by foreign rulers and pirates was a non-issue. Information on the loss of ships must have been well known. Probabilities could have been predicted and risks could be priced. The Mediterranean in high antiquity was presumably an environment of risk, not uncertainty, an environment of lower risks than those of the commercial revolution of the late Middle Ages. In Knightian terms, the environment became, with the development of political stability and trade infrastructures, as the Roman Empire prospered, more conducive to insurance. On the face of it, the demand for risk-shifting devices should have been in place. Ships sank in the Roman Mediterranean. This is well known, thanks to marine archaeology, which discovered over the years hundreds of shipwrecks in the bottom of the Mediterranean. Some 1000 such ships were dated to the heyday of the Roman Empire.[30]

So, the enigma is why didn't insurance originate in Roman times and had to await the commercial revolution a millennium later? Could it be the case that the Romans did not know how to think about probabilities? Could there have been some obstacles on the way of organizing firms or

[30] Second century BCE to fourth century: CE. Wilson, 'Developments in Mediterranean Shipping'. The larger number of wrecks attributed to this period does not indicate higher maritime risks. They more likely reflect more maritime traffic.

of drafting contracts? Could there have been Roman substitutes to insurance, which dealt with maritime risks in different methods? The answer to the enigma of why insurance did not develop as early as the Roman Empire is a task for Roman historians. It is beyond the scope of this essay.

Before Marine Insurance—General Average

Let's use the same theoretical framework for explaining the earlier origins of General Average. General Average is applied in the event of sacrifices of ship cargo or equipment to save the ship and the rest of the cargo. The paradigmatic General Average was initially applied to jettison, which occurred when part of the cargo was intentionally thrown overboard in order to save the ship from sinking, grounding, or capture by pirates, and the ship was indeed saved. Over time, the application of General Average was extended to sacrifice by the ship captain (on behalf of the owner) of sails, ropes, anchor and equipment in order to slow or lighten the ship, and so to save the ship in a storm, to pay pirates a ransom, in coins or jewellery, in order to let the ship and the rest of the cargo go, and other scenarios.[31] The basic principle was that as the damage was averaged, the loss was shared by all. At least four questions arose: What types of losses, beyond jettison, fall under General Average? By whom should the decision to sacrifice or jettison be made? Which damages should be assessed and shared, and based on which price? Who should take part in sharing the burden of the damages (freight shippers, passengers, crew) and based on what (weight or value)? These complications will be discussed below. General Average deals only with a subset of the potential risks and losses at sea. General Average could not deal with maritime risks as comprehensively as insurance.

General Average is possibly the oldest maritime trade institution still in use today. Its history stretches throughout two millennia, if not more. It is discussed in detail in book 14 of Justinian's *Corpus Juris Civilis*, which deals with "The Rhodian Law of Jettison".[32] The Roman jurists, whose texts were collected by the editors of the *Digest*, go back to the second and third centuries CE. References to *Lex Rhodia* can be found in

[31] W. Ashburner, *The Rhodian Sea-Law: Edited from the Manuscripts* (Oxford 1909).

[32] C. H. Monro ed. and transl., 'Fourteenth Book', *Digest of Justinian* (Cambridge 1909), 378.

first century CE Roman texts, and some scholars believe that a customary Rhodian maritime law existed as early as 600 BCE.[33] Jettison, as a practice, is mentioned in Jonah's biblical story.[34] Thus, with some speculative stance, we can imagine General Average to be 2500 years old. Even a conservative estimate would hold the General Average's origins to predate that of the premium marine insurance by at least a thousand years.[35] Importantly, for our analysis, is that General Average did not develop during the heyday of the Roman Empire when maritime risks were low due to political stability and well-developed economic facilities, but in earlier centuries when risks were high and uncertainties still ubiquitous.

How could General Average function in a world of uncertainty? In case of damage to the ship or cargo, resulting from jettisoning or other voluntary sacrifices of cargo or ship equipment in order to save the rest, all stakeholders proportionally share any losses. Some cargo owners could be more vulnerable than others to jettison, for example, those whose cargo was heavier per value and could have more impact on saving the ship, or those whose cargo was placed, based on loading rules, on the upper deck and could be thrown faster on emergency. General Average better aligned the interests of the various cargo owners so that they would be all supportive of the jettison when effective in saving the ship. General Average also solved ex-ante problems, by making cargo owners more indifferent regarding the location of their cargo on board or whether other cargo on board is more or less valuable per weight than theirs'. The significant advantage of General Average over insurance is that the risk is not allocated to outsiders. The Average was being calculated only between those who had stakes in the ship, cargo owners and passengers. As the risk was not separated and as no one purchased it, there was no need to price the risk ex-ante. All calculations were made ex-post. This solved Knight's problem.

What about Scott's contract drafting problem? Is it at all relevant for analysing General Average? Should we understand General Average to

[33] D. Bolanča, V. Pezelj, and P. Amižić, 'General Average—An Ancient Institution of Maritime Law', *Ius Romanum*, 2 (2017): 1–10; O. R. Constable, 'The Problem of Jettison in Medieval Mediterranean Maritime Law', *Journal of Medieval History*, 20/3 (1994): 207–220; Andrea Addobbati in this volume.

[34] Jonah 1: 5.

[35] For the origins and migration of General Average, see the contributions of Daphne Penna and Andrea Addobbati in this volume.

be an implicit contract? The question is important for its own sake. It is also relevant in order to ascertain the relevance of Scott's theoretical framework. We will approach the question using both contemporary and modern understandings of what is contractual. The rules of General Average are known to have been retained in Mediterranean customary laws, in the *Digest* part of the Justinian Code, and the regulations of Italian city-states. This may create the impression that it was a statute or a regulation. But, in fact, it should possibly be conceptualized as a contractual rule. To be clear, General Average was not a separate, formal, explicit and written contract. One should not expect to find General Average contracts. The question is whether General Average was an implicit background contractual term that was read into freight contracts, even if not spelled up in them.

The conceptualization of General Average as a contractual rule is supported by the location of the rule in the *Digest* in the sections (Book XIV, Section II) that deal with contracts between shippers and merchants, such as *locatio conductio* and *receptum nautarum*.[36] General Average could be viewed as either a mandatory rule or as a default rule. When the Romans dominated the entire Mediterranean, the actual effect of the General Average rule was universal; one could presumably not trade on the sea without being subjected to it. Another way of viewing General Average in the Roman Empire is that it does not matter whether one conceptualizes it as a contractual rule or a marketplace regulation; the outcome is similar. In earlier or later periods, it could be viewed as a mandatory rule for every ship departing a port that adopted the rule but not for ships departing other ports. Alternatively, it could be viewed as a take-it-or-leave-it clause in freight contracts, which means that one could not freight without implicitly agreeing to General Average. Yet, it could not be a default clause that some passengers and cargo freighters on a ship would accept, while others would reject by opting out of them. Bear in mind that the fact that General Average was widely followed in the post-Roman Mediterranean ports does not mean that its details were uniform in all these ports. The question that had to be decided was which rules would apply for which ship in each of its voyages. This determination can be understood as being made based on an implicit contractual agreement.

[36] E. Mataix Ferrándiz, 'Will the Circle Be Unbroken? Continuity and Change of the Lex Rhodia's Jettison Principles in Roman and Medieval Mediterranean Rulings', *Al-Masāq*, 29/1 (2017): 41–59, 43–44.

Another way of conceptualizing General Average as contract was offered by Levin Goldschmidt. He viewed the *germinamento* as a contract based on a consultation followed by an agreement to jettison made on the spot on board a ship when the danger becomes imminent. In this version, it is not a law applied to the ship or an agreement made before the departure but rather the decision to jettison that made the General Average enforceable. Andrea Addobbati discusses at length in this volume the history and details of the *germinamento* and the misunderstandings with respect to it.[37] The examination of additional contractual and regulatory aspects of General Average deserves more scholarly attention.

General Average contractual rules were simpler than insurance contracts and specified only one contingency, one set of eventualities, the jettisoning of cargo without the sinking of the ship. In General Average, those whose cargo was not jettisoned had to share the damages. Scott's framework can be used to explain why General Average contracts were likely to develop before marine insurance contracts. Insurance contracts had to address partial loss as well as total loss, sinking as well as jettisoning, weather-related damages as well as man-made damages by pirates or foreign rulers, and human mistakes made by crew or merchants.

General Average was a good institutional solution for an environment of uncertainty, yet it had its limits. General Average provided no relief in the event of sinking and total loss. In such an extreme event, everybody lost everything; hence, there was no averaging to be made and no stakeholder could share the burden of the loss of other stakeholders.

Having on the same ship cargos that were subjected to General Average and other cargos that were not subjected to it could create unmanageable conflicts of interest at times of trouble. It seems as though ex-ante stakeholders were behind a veil of ignorance, not knowing in advance whose cargo will be jettisoned, so there was no apparent reason for them to reject a freight contract that will include a General Average clause.

[37] See Andrea Addobbati in this volume.

Applying the Theoretical Framework for Other Maritime Institutions

Let's see the value of the theoretical framework developed here for other maritime trade institutions that dealt with risk. We'll examine first institutional solutions that do not require the crossing of the threshold from uncertainty to risk. We'll discuss three such institutions in the order in which they appeared historically, the sea loan, the *commenda*, and the business corporation.

The Sea Loan

Could the sea loan be such solution? In a sea loan, the borrower was exempted from repaying the loan if the ship was wrecked. General Average contracts were less costly to draft and relied on a lower level of knowledge about possible states of affairs. Sea loans were distinct from regular loans in that they provided the ability to separate the allocation of different risks to the two parties. The sea risk, loss of ship or goods at sea, was allocated to the lender, while the business risk, changes in demand and supply and market price fluctuations, was held by the borrower. More specifically, in the case of loss of the ship or goods on the way, in the open sea, either due to drowning or capture by pirates, the borrower was discharged from the debt.

The sea loan originated in antiquity, there is some evidence that it might also have been operative in the commerce of the Phoenician merchant kings of the Levantine coast as early as the second millennium BCE.[38] In Athenian law, by the fifth and fourth centuries BCE the sea loan (*nautikòn dáneion*) was apparently widely used.[39] In Roman times, the sea loan (*foenus nauticum*) was a distinct and well recognized legal category, which was reflected in the Justinian Code.[40] So, they were a

[38] J. R. Ziskind, 'Sea Loans at Ugarit', *Journal of the American Oriental Society*, 94/1 (1974): 134–137.

[39] The Athenian form may have been based on even earlier Phoenician merchant practices. See Ziskind, 'Sea Loans', 134–137; E. E. Cohen, *Athenian Economy & Society: A Banking Perspective* (Princeton 1992); P. Millett, *Lending and Borrowing in Ancient Athens* (Cambridge 2002).

[40] Ashburner, *The Rhodian Sea-Law*; C. B. Hoover, 'The Sea Loan in Genoa in the Twelfth Century', *The Quarterly Journal of Economics*, 40/3 (1926): 495–529.

product of early Greco-Roman antiquity and possibly even of the ancient Middle Eastern civilizations. The sea loan was known to the Byzantine Empire, was not accepted by Islamic law and re-emerged in the Latin West with the revival of trade in Italy.[41] The puzzling fact is that sea loans were in use from antiquity, long before insurance. Why did sea loans originate so early?

In theory, the statistical probability of the loss of ships on the high seas had to be known for the sea loan to function. The lender had to know it in order to price the sea risk properly and add the sea risk premium to the interest charged (based on risk-free loan interest and probably also credit default risk premium) for the loan. This probability is unknown in an environment of uncertainty. So, the sea loan seems not to be a well-functioning institution in terms of risk pricing under uncertainty. The Knight-inspired puzzle, as raised in the context of insurance, is reiterated in the context of the sea loan. However, the puzzle why insurance did not appear in the heyday of the Roman Empire when information about maritime losses in the Mediterranean was presumably readily available, does not apply here, because sea loans were available.

However, a few factors may explain why sea loan contracts could be drafted and produced under higher uncertainty than insurance contracts. The drafting of the contract was less costly if we are convinced by Scott's analysis, in sea loan than in insurance, as it had to cover a narrower set of contingencies. While the maritime risk of full loss at sea was allocated by the sea loan contract to the lender, other contingencies were not covered by the sea loan contract. Regulations, including Roman Catholic usury laws, capped the interest on sea loans in the Latin world from the twelfth century. Thus, the market was not free. Because interest rates could not reflect the risk premium, there was no necessity to know probabilities in order to price them. Yet, it is possible that the response of lenders was through credit rationing, offering loans only for durations and routes in which risk premium could be calculated and the compound was below the cap. Because the risk was only one of several dimensions of the sea loan transaction, the risk premium did not have to be calculated as precisely as insurance contracts in which only the risk was sold.

[41] R. Harris, *Going the Distance: Eurasian Trade and the Rise of the Business Corporation, 1400-1700* (Princeton 2020), 110–118.

The Medieval sea loan, the contemporary of the early insurance contracts, was more sophisticated than the sea loan of antiquity. Two variations emerged out of the ordinary sea loan. The first was the *bottomry*, a loan secured by the ship itself. The second was the *respondentia*, a loan secured by the goods. Both functioned in an environment of risk, rather than uncertainty, and it indeed functioned differently. The interest rate on sea loans in the twelfth century, which also reflected the sea risk premium, was 25–33% for western Mediterranean round trips, and as high as 40–100% for voyages to the Levant.[42] The expected profits were high enough to justify this. The sea loan and insurance offered different ways of mitigating risks. The sea loan did not allow the allocation of risk to a third party that was unconnected to the underlining trade transaction and did not yield itself to the spreading of the risk among many, as insurance did. On the other hand, the sea loan did not require precise pricing of the risk, could function with cruder price categories and possibly involved lower transaction costs.

The theoretical framework offered here reshapes research questions concerning the history of the sea loan, introduces new puzzles and offers initial and speculative responses to some of the questions and puzzles. Well-based responses are beyond the scope of the present article.

Commenda

The basic *commenda* was a bilateral contract involving two parties, the sedentary investing party and the travelling agent. The investing party provided capital in the form of goods and cash and was entitled to a share of the profit. The travelling party provided his labour by travelling with the goods by sea or land to faraway markets in order to exchange the *commenda* goods with local goods and return with these to the investing party. The itinerary and goods to be bought were set in advance to some extent. The intention was to split the profits upon return based on a pre-agreed basis, typically 25–75%. The *commenda* was thus an equity-investment contract, specifying investments and payoffs. The

[42] Hoover, 'The Sea Loan in Genoa'.

commenda was also a labour contract with the travelling party investing labour, expertise, information, contacts and bodily risk.[43]

What can the theoretical framework of this article inform us about the timing of origins and course of development of the *commenda*? The first appearance of the *commenda* was in early Islamic Arabia. There are legal discussions of the *commenda* (*qirad*, *mudarabah*) in Islamic juristic texts by the eighth and ninth centuries. It predated the first use of premium insurance. The *commenda* first appeared in Italy, in Venice, Pisa and Genoa in the eleventh and twelfth centuries.[44] Interestingly, the *commenda* did not exist in the Roman Mediterranean.

Was the *commenda* well suited to an environment of prevalent uncertainties? In theory, in *commenda* contracts, the risks are split between the investing party and the travelling party. The investing party risked his financial investment, and the travelling party risked his body and soul, the labour he invested in the project, and his share in the expected profits. The loss at sea was a major risk factor. The investments could vary and so could the share in the profits or losses. The parties could negotiate, in advance, these inputs and outputs based on the expected risk. Risk assessment was influenced by the destination, the length of the venture, the expectations for market prices and profits, and more. Knight's framework would suggest that an environment of uncertainty cannot give rise to *commenda* contracts because, in such an environment, risks could not be priced and the splitting of profits and losses could not be negotiated and agreed upon. The shares in the investment and in the payoffs could be viewed as a mode of pricing the risks given the environment. Thus, it could not take place in an environment uncertainty but only of risks.

The Scott layer of the theory may lead to a different postulation. It can explain why the *commenda* nevertheless originated in an environment of high uncertainties that could not give rise to insurance. The gist of the *commenda* is that it is a best-effort contract, that the traveller has a sort of fiduciary duty to act to the benefit of the investor, to do business as

[43] Harris, *Going the Distance*, 130–170. For the historiography of the *commenda*, see F. Trivellato, 'Renaissance Florence and the Origins of Capitalism: A Business History Perspective', *Business History Review*, 94/1 (2020): 229–252.

[44] L. Favali, *Qirad Islamico: Commenda Medievale e Strategie Culturali Dell'Occidente* (Turin 2004); G. Mignone, *Un Contratto Per i Mercanti del Mediterraneo: L'evoluzione del Rapporto Partecipativo* (Naples 2005). For a possible Byzantine antecedent of the *commenda* see the contribution of Daphne Penna in this volume.

though it was solely to his benefit. The *commenda* can be viewed as a formal contract that contains a general standard, whose detailed application was decided ex-post in the event of a dispute, rather than ex-ante specified contingent rules. Unlike in insurance contracts, the specification is done ex-post by the tribunals or courts when settling disputes. In an environment of a less developed legal system, in which third party dispute resolution by professional judges is unavailable, the *commenda* can be viewed as a collaborative contract that in Scott's terms braids informal, as well as formal, components. The *commenda* contract generates information by requiring the travelling agent to deliver itinerary, bills of ladings and accounts of his travels, transactions and profits. Based on these, the investing party verifies whether the traveller shirked or cheated according to prevailing informal norms. The investing party could, in case of a breach, impose a reputational sanction.

Different layers of the theoretical framework used here lead to different, if not contradictory, analysis and conclusions for the development of the *commenda*. One strand views an environment of risks as a precondition for the *commenda*. The other sees the *commenda* as able to function in an environment of uncertainties. The under-determinacy of the theory, with respect to the *commenda*, may result from the fact that dealing with risks is not its main purpose. The *commenda*, unlike insurance, was not intended to deal exclusively with risks. It was also, even primarily, an employment or agency contract.

The Business Corporation

The joint-stock business corporation originated only as late as the sixth century. It was, among other things, a response to an increase in uncertainty. This increase did not result from the deterioration in the circulation of information about probabilities in a given environment. The commercial revolution converted uncertainties into risks in the context of the Mediterranean trade. This is the story that explains the emergence of marine insurance. But, this was not the story that gave rise to the business corporation. The relevant development in the sixteenth century was the entrance of Europeans into new trade environments in the Atlantic and around the Cape of Good Hope into the Indian Ocean.

One could revert to the familiar contractual solution, by allocating risks contractually to outsiders. This could be done by way of premium insurance (already regularly used in the Mediterranean), by way of sea loans

in which the lender bore the sea risk, or even by way of regular loans in which the lender did not bear the sea risk but bore the risk of insolvency.[45] But, all of these required attributing probabilities in order to price transferred risks.

The new environment was unfamiliar and adventurous. This was the kind of increase in uncertainty due to innovative business activities along the lines analysed by Scott. Oceanic trade, particularly Asian trade, was thinner and involved higher uncertainties than the well-established Mediterranean trade. Insurance was unavailable for the long Asian voyages that lasted for 2–3 years and often ended in loss.[46] Because of the lack of prior experience with these long voyages in unfamiliar waters and trade, probabilities of loss could not be estimated, insurance premium could not be priced, and insurance cloud not be offered. The solution was to face the uncertainties by pooling many of them together into a single enterprise. That is, rather than investing in a single ship or a single venture of a few ships sailing together in the same season to the same destination port, investing in an enterprise that operated numerous ships over several years to a variety of ports. The idea of pooling risks together was not altogether new. What was new was the organizational platform used. The innovative organizational solution was the joint-stock business corporation.[47]

The basic theoretical basis for the risk mitigation element of the business corporation can be found in Knight's theory. He says: "it is simply a matter of an elementary development of business organization to combine a sufficient number of cases to reduce the uncertainty to any desired limits". And adds: "The possibility of thus reducing uncertainty by transforming it into a measurable risk through grouping constitutes a strong incentive to extend the scale of operations of a business establishment".[48]

[45] The early business corporations did not rely on the limited liability, owner shielding, typical features of the modern business corporation; on this R. Harris, 'A New Understanding of the History of Limited Liability: An Invitation for Theoretical Reframing', *Journal of Institutional Economics*, 16/5 (2020): 643–664.

[46] In the north Atlantic travel times were shorter, voyages more frequent, information denser, the environment turned sooner into one of known risks and insurance became available, in ports like Antwerp, Amsterdam and London, turning into a structured underwriters' marketplace in the form of the Lloyds. See C. Kingston, 'Governance and Institutional Change in Marine Insurance, 1350-1850', *European Review of Economic History*, 18/1 (2014): 1–18.

[47] Harris, *Going the Distance*, 251–275.

[48] Knight, *Risk*, 128.

It is interesting to note that, in this sense, Knight is also an institutionalist. For him, the path from uncertainty to risk does not only go through gathering information and calculating probabilities (or increasing control over future probabilities), but also through organizational tools that are not that distinct from North's.

In our case, the consolidation of numerous ventures, voyages, events and decisions alleviated the need to set the probability for the loss of each ship in each segment of a voyage. The consolidation of several voyages having several ships each made "the law of large numbers" applicable to the first business corporations, the English East India Company [EIC] and Dutch East India Company [VOC]. They handled uncertainties by pooling them together through the longevity offered by the legal personality and the scale offered by joint-stock equity investment. The EIC and VOC did not have to convert these maritime and trade uncertainties into insurable risks in order to enter oceanic trade with Asia.[49] As the seventeenth century progressed, information was gathered, recorded and processed in the headquarters of these business corporations. The uncertainties were converted into risks, the risks were reduced, insurance became available, and the pooling together of uncertainties was not essential anymore.[50] By the eighteenth century, the EIC and VOC became rent-seeking monopolies and territorial rulers. Running the trade by smaller merchant houses backed by insurers like the Lloyds of London became potentially more efficient. A political struggle began between the monopolies and new entrants.

Conclusion

Traditional historical analysis is good at reconstructing the pattern of development of maritime trade institutions based on research that looks for the trace of records that were preserved in archives. It is not good at explaining the timing of origins and path of evolution of these institutions. Historians assume, often implicitly, that institutions were invented once societies realized that they are beneficial and learned how to design

[49] Harris, *Going the Distance*, 275–231; G. Dari-Mattiacci, O. Gelderblom, J. Jonker, and E. C. Perotti, 'The Emergence of the Corporate Form', *Journal of Law, Economics, and Organization*, 33/2 (2017): 193–236.

[50] For the interplay between General Average, insurance and the VOC in Amsterdam, see Sabine Go in this volume.

them. As there are usually no historical records that explain the origins and paths, historians cannot do more than this.

The Knight-North-Scott framework takes us a long way forward in understanding the history of risk mitigation trade institutions. Knight calls attention to the role of information in the shift from uncertainty to risk and the development of insurance. North calls our attention to the role of information in reducing transaction costs and enhancing growth. Scott reminds us that institutions involve contractual drafting and that contracts can deal with information shortage and information generation. By doing this, we realize that the challenge was not to discover how beneficial are insurance and other risk mitigation institutions. The focus, instead, should be on how to solve the informational challenges with respect to risk assessment and pricing and contractual drafting in which without insurance cannot come to life.

The theoretical framework calls for the comparison of different risk-mitigating institutions, in terms of their ability to function in environments of higher and lower uncertainty. Organizing business under uncertainty is different than under risk. The early start and long history of General Average can be explained by the fact that it can function well under uncertainty, even high uncertainty. Once in place, General Average further evolved through contractual refinements of the details of its application. One set of research issues relates to change over time. The details of this evolution can be worked out through a careful historical investigation that is coupled with contract theory.

Information is not only exogenously given but also endogenously generated by institutions. Contracts can be designed so that they will generate the information needed for these contracts to function. The *commenda* contract is an excellent example of a contract that includes information generation elements. It can function in an environment of uncertainty because it does not rely only on the environment (say the state or the thickness of the trade network) for information but also generates information on the level of the contractual relations.

Another contract theory insight distinguishes between frontend contractual drafting and backend dispute resolution over the contract. The less information is available in advance, the costlier it is to write down a detailed contract that covers the expectations of the principal from the agent in many contingencies and the more cost-efficient it is to write a longer-term relational contract that requires best effort. The *commenda*

is an example of a contractual design that implements this insight in a manner that saves on transaction costs.

Yet, another insight from Scott's theoretical framework is that the lower the uncertainty, the more feasible it is to draft a complete contingent (if–then) contract. The higher the uncertainty, the more feasible it is to draft contracts that cover a single contingency. This insight fits the fact that sea loan contracts developed long before insurance contracts.

Risk can be mitigated in different ways: allocation, spreading or pooling. We are only beginning to understand under which legal and organizational frameworks and maritime risk environments were risk spread, as opposed to pooled or allocated.

The shift from uncertainty to risk is not well explained by economic theory. The history of organizational solutions for mitigation of maritime uncertainties and risks, from General Average and sea loan to insurance and the business corporation, cannot only benefit from but also contribute to the theory of institutional development more generally.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

Risky Narratives: Framing General Average into Risk-Management Strategies (Thirteenth–Sixteenth Centuries)

Giovanni Ceccarelli

Over the last few years, historians have extensively investigated on the role of risk in the history of finance, and the development of risk-management techniques in the United States since the late nineteenth century. Well-established approaches that considered such innovations

The research for this essay was conducted thanks to funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and Innovation Programme ERC Grant agreement No. 724544: *AveTransRisk—Average—Transaction Costs and Risk Management During the First Globalization (Sixteenth-Eighteenth Centuries)*. Preliminary versions of this essay were presented at the *3rd Biennial Richard Robinson Workshop on Business History* (Portland State University) and at the International Conference on *Risk and the Insurance Business in History* (Universidad Internacional de Andalucía). The author is grateful to all those who provided their observations in these occasions. The author would also like to thank Maria Fusaro, Sabine Go and Andrea Addobbati for their helpful comments on earlier versions of this essay.

G. Ceccarelli (✉)
University of Parma, Parma, Italy
e-mail: giovannimarcello.ceccarelli@unipr.it

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_3

beneficial in themselves have been questioned, by pointing out the consequences of the pervasive spread of financial tools designed to mitigate risks. It appears, rather, that a socially uneven distribution of risk went along with the financial efficiency brought by these novelties, whose legitimacy rested on narratives identifying individual freedom with the taking of risks.[1]

This essay explores the possibility that something similar might have occurred in early modern Europe, when marine insurance provided an alternative to contracts previously used to mitigate the risks connected to sea trade. It also aims at discussing whether the spread of specialized insurance markets, beginning in the sixteenth century, brought to a substantial shift in the distribution of these types of risks from a restricted trading group to a broader social base.

Premium-based marine insurance was crucial in supporting long-distance commerce in the early modern period, since it allowed merchants to carry out business with less capital than the risks of their trade demanded. Initially developed in Italy in the fourteenth century, it later spread to Spain reaching the Atlantic ports of Antwerp, Amsterdam and London during the sixteenth century.[2] This timing and geographic origin favoured a mainstream interpretation that 'romantically' considered insurance as an iconic expression of late medieval merchant capitalism. In a narrative dominated by inventive financial techniques, and efficient systems of commercial letters, it was described as the new tool actors were in need of to reduce the risks of doing business.[3]

A major flaw in this interpretation is to take premium insurance as something that appeared 'out of the blue', as if previously there were no other instruments to support maritime trade. However, marine insurance developed alongside a set of different and pre-existing mechanisms

[1] L. Hyman, *Debtor Nation: The History of America in Red Ink* (Princeton 2011); J. C. Ott, *When Wall Street Met Main Street: The Quest for an Investors' Democracy* (Cambridge, MA 2011); J. Levy, *Freaks of Fortune: The Emerging World of Capitalism and Risk in America* (Cambridge MA 2012). For a theoretical framework see J. Beckert, *Imagined Futures: Fictional Expectations and Capitalist Dynamics* (Cambridge, MA 2016).

[2] F. Edler de Roover, 'Early Examples of Marine Insurance', *The Journal of Economic History*, 5 (1945): 172–200.

[3] Two typical examples of this approach are: L. A. Boiteux, *La fortune de mer: le besoin de securité et les debuts de l'assurance maritime* (Paris 1968); F. Melis, *Origini e sviluppi delle assicurazioni in Italia (secoli XIV–XVI), Volume 1: Le fonti* (Rome 1975).

to mitigate risks.[4] Yet, scholars preferred to focus on what seemed to be the 'modern' solution to the problem, given that with this contract 'sea risks' became the specific object of the agreement.[5]

In carrying out everyday business insurance was not the only existing option. Merchants and ship-owners willing to manage the risks of navigation could turn to a broad array of alternatives, including sea loan, Averages, sea exchange and various types of partnerships.[6] In addition to contracts and business agreements, other strategies could be used, like employing armed vessels, dividing the cargo among multiple carriers and sailing in convoy. Considering the resilience proven by several of these possible responses to sea risks—for example, sea loans/bottomry and General Average—the traditional historical reconstruction in which backward techniques are replaced by more developed ones appears oversimplified. A good way to look at their interplay is, on the contrary, to think about an ecosystem where competition goes along with coexistence and cooperation, like a forest made of trees and bushes of different species each adapting to their ecological niche.[7]

Clearly, these responses to navigation risks are not equivalent. A first divide is between strategies aiming at preventing the probability of a mishap, and those designed to minimize the consequences of it. Sailing in convoy or shipping goods on armed vessels is—adopting a terminology coming from decision theory—a form of self-protection to prevent a loss, not to reduce its negative effects. For example, well into the eighteenth century, coral fishers in Southern Italy tackled the threats coming from Barbary pirates by recruiting armed protection.[8] Quite the opposite is what occurs with General Average, sea loans or insurance. These do

[4] Some insights on these issues in are in Ron Harris essay in this volume.

[5] For a recent summary, see L. Piccinno, 'Genoa, 1340–1620: Early Development of Marine Insurance', in A. B. Leonard ed., *Marine Insurance: Origins and Institutions, 1300–1850* (Basingstoke 2015).

[6] R. S. Lopez and I. W. Raymond, *Medieval Trade in the Mediterranean World: Illustrative Documents Translated with Introductions and Notes* (London 1955), 162–211; Melis, *Origini e sviluppi delle assicurazioni*, 12–13, 56–57, 87, 93.

[7] The comparison of market institutions and ecosystem has been widely adopted by business historians, see L. Hannah, 'Marshall's "Trees" and the Global "Forest": Were "Giant Redwoods" Different?', in N. R. Lamoreaux, D. M. G. Raff, P. Temin eds., *Learning by Doing in Markets, Firms, and Countries* (Chicago 1999), 253–293.

[8] V. Ferrandino, *Il Monte pio dei marinai di Torre del Greco. Tre secoli di attività al servizio dei corallari (secc. XVII-XX)* (Milan 2008), 49.

nothing to diminish the probability of an accident, whereas they have a great role in minimizing its economic consequences.[9]

They way in which they do it is, however, different. Here a second distinction needs to be stressed, the one between risk-spreading and risk-shifting. For example, General Average redistributed damages and expenses that could occur to ships and cargoes by allocating them to all interested parties, according to a principle of joint liability. General Average essentially was a risk-spreading technique, a mutual form of protection designed for actors who were routinely engaged in sea trade, including merchants, ship-owners and shipmasters. By contrast, in premium insurance, the risk is not shared but shifted (or hedged) from one party to another. Protection is granted by individual underwriters, each responsible just for the coverage they agreed to subscribe for. Limited liability is the tool that allows this to go beyond a restricted circle of actors, replacing risk-sharing with risk-shifting.[10]

Nevertheless, when adapting modern classifications to the framework of the period from the thirteenth to the sixteenth century, distinctions are not so clear-cut; if one considers other tools that could be adopted as a response to sea risks, sharing and shifting were often combined. Clear examples are bottomry and sea exchange, where loan and insurance are mingled together.[11] Moreover, in day-to-day business actors unlikely chose just one option but tended to adopt a multifaceted strategy. For instance, one could use insurance in combination with armed vessels, spending less money for premium and more for freight, since in this case insurance costs halved.[12] Likewise, an underwriter could enter into the contract not in a personal capacity but on behalf of a firm, sharing thus

[9] I. Ehrlich and G. S. Becker, 'Market Insurance, Self-Insurance, and Self-Protection', *The Journal of Political Economy*, 80/4 (1972): 623–648.

[10] N. A. Doherty, 'Some Fundamental Theorems of Risk Management', *The Journal of Risk and Insurance*, 42/3 (1975): 447–460; R. Holzmann and S. Jørgensen, 'Social Risk Management: A New Conceptual Framework for Social Protection, and Beyond', *International Tax and Public Finance*, 8/4 (2001): 529–556, esp. 541–542.

[11] R. de Roover, 'The Organization of Trade', in M. M. Postan ed., *The Cambridge Economic History of Europe*, vol. 3: *Economic Organization and Policies in the Middle Ages* (Cambridge 1965), 42–118, 53–57; see also Andrea Zanini's contribution in this volume.

[12] G. Ceccarelli, 'The Price for Risk-Taking: Marine Insurance and Probability Calculus in the Late Middle Ages', *Journ@l électronique d'Histoire des Probabilités et de la Statistique/Electronic Journ@l for History of Probability and Statistics*, 3/1 (2007): 6–7, 16. http://eudml.org/doc/130865 (last accessed 29 December 2021).

the risk with multiple partners.[13] Even the choice of using saints and other religious terms to name a ship is revealing of a manifold approach.

Recent scholarship has provided further complexity to this framework. By putting the emphasis on transaction costs and stressing the role of institutions in managing this business, it appears that contract innovation is only one side of the story. Moving from some influential insights by Douglass North and Avner Greif, the focus has thus shifted from financial novelties to insurance governance.[14]

This allowed scholars to develop a new narrative in which premium insurance, notwithstanding its innovative potential, for a long time continued to mimic previous forms of solidarity adopted by those involved in maritime trade. For a long time, insurance was an activity parallel to commerce, a risk-spreading technique envisaged to share rather than transfer risk. Merchants acted alternatively as underwriters and insurance buyers, specialization was very limited, and no complex organization emerged. Given this prevailing mutualism, customary mechanisms of contract enforcement were at work; well suited for small groups, they increased the level of confidence reducing in turn the cost of transacting. Insurance markets were efficient, since they functioned as a 'club' providing services a small number of 'members'.[15]

Empirical evidence of this framework is widespread, but we can briefly turn to a specific example to have a case in point. During the Renaissance, Florence was a major insurance market, yet the number of those operating in it was surprisingly small. If in the late fourteenth century it involved no more than two hundred individuals, at the beginning of the sixteenth century, the number rose to four or five hundred. In a city of 40/50,000 inhabitants, just a narrow circle—roughly corresponding to 1% of the population—was involved in insurance, whereas the remaining 99% had nothing to do with it. Actors not only were few, but also tended to be extremely similar, fundamentally matching to a single profile. They were

[13] G. Ceccarelli, *Risky Markets: Insurance in Renaissance Florence* (Leiden 2020), 178–180.

[14] D. C. North, *Institutions, Institutional Change, and Economic Performance* (Cambridge 1990), in particular 126–127; A. Greif, 'On the Interrelations and Economic Implications of Economic, Social, Political and Normative Factors: Reflections from two Late Medieval Societies', Working paper, Stanford University, 1997, in particular 33.

[15] A. B. Leonard, 'Introduction: The Nature and Study of Marine Insurance', in A. B. Leonard ed., *Marine Insurance*.

male Florentine citizens, coming from families involved in long-distance trade and banking, members of the wealthiest households, enjoying a highly visible political status.[16] Two informal mechanisms—exchange of roles and barriers to entry—were also at work, reinforcing this selection process. Underwriters and insurance buyers regularly exchanged their role on the market. Only a fraction of coverage from marine risks, corresponding to just about 6% of the total insured value, was offered to subjects who did not also act as insurers (see Table 1, at p. 88). If a merchant wanted to be relieved from the risks of sea trade, the same merchant had to be willing to run them on behalf of someone else. A similar outcome resulted from high barriers to entry, customarily applied to those willing to underwrite a contract. The minimum amount insurers were expected to cover, excluding some few exceptional cases, roughly corresponded to the yearly wage of the manager of a medium-sized commercial firm (see Table 2, at p. 88).[17]

The Florentine example shows that the spread of premium insurance did not imply per se that club-like markets were rapidly abandoned. What new studies suggest is that the transition was slower than previously thought, beginning only when contract innovation resonated with institutions supportive of impersonal transactions. External pressures, essentially ascribable to the rise of the Atlantic economy and the increasing demand for insurance, gradually altered this static framework by broadening the number of subjects who are engaged in the transactions.[18] It is only during the sixteenth century, with a timing that differs from one market

[16] R. Goldthwaite, *The Economy of Renaissance Florence* (Baltimore 2009), in particular 98–103; A. Addobbati, 'Italy 1500–1800: Cooperation and Competition', in Leonard ed., *Marine Insurance*, 47–77.

[17] Exchange of roles and barriers to entry are common in most other insurance markets. See, for example, R. Doehaerd, 'Chiffres d'assurance à Gênes en 1427–1428', *Revue belge de Philologie et d'Histoire*, 27 (1949): 736–756; M. del Treppo, 'Assicurazioni e commercio internazionale a Barcellona 1428–1429', *Rivista storica italiana*, 69 (1957): 508–541.

[18] C. Kingston, 'Marine Insurance in Britain and America, 1720–1844: A Comparative Institutional Analysis', *The Journal of Economic History*, 67/2 (2007): 379–409; and the following essays, all in Leonard ed., *Marine Insurance*: S. Go, 'Amsterdam 1585–1790: Emergence, Dominance, and Decline', 107–129; A. Bogatyreva, 'England 1660–1720: Corporate or Private?', 179–203; G. Chet, 'Britain and America 1650–1850: Harmonising Government and Commerce', 249–268.

to another, that risk-shifting starts working alongside risk-spreading. Individuals previously excluded then entered the business; these newcomers could be foreigners arriving on the market like it happened in Genoa or Livorno, or locals taking over commerce until then carried out by alien merchants, as in the case of Antwerp or London.[19] An indirect clue of their presence comes from the spread of legal interventions aiming (at least in part) at building an infrastructure capable of safeguarding these outsiders. Examples can be found in Florence (1524), Burgos (1538), Ragusa (present-day Dubrovnik) (1568), Antwerp (1563, 1570), Bilbao (1568), Amsterdam (1598) and London (1601). Whereas until then normative interventions always occurred in the broader framework of maritime regulation, now laws specifically designed for marine insurance become the standard. Typically, these would include: a procedure regulating insurance claims, a standard contract that needed to be followed, a specialized court having jurisdiction on insurance litigations and mandatory registration of contracts.[20] By designing an institutional infrastructure suited to handle markets larger in scale, and more stratified in their structure, the passage from risk-spreading to risk-shifting was possible, and profit seeking could slowly work its way over protection

[19] L. Piccinno, 'Genoa, 1340–1620: Early Development of Marine Insurance', 25–45, 42–43; Addobbati, 'Italy 1500–1800: Cooperation and Competition', 63; D. De ruysscher, 'Antwerp 1490–1590: Insurance and Speculation', 79–105; G. Rossi, 'England 1523–1601: The Beginnings of Marine Insurance', 131–148; all in Leonard ed., *Marine Insurance*.

[20] V. Barbour, 'Marine Risks and Insurance in Seventeenth Century', *Journal of Economic and Business History*, 1 (1928–29): 561–596, 572–573; L. A. Boiteux, *L'assurance maritime à Paris sous le règne de Louis XIV* (Paris 1945), 13; Boiteux, *La fortune de mer*, 110–123, 142; G. S. Pene Vidari, 'Il contratto d'assicurazione nell'età moderna', in *L'assicurazione in Italia fino all'Unità* (Milan 1975), 232–234, 271–285, 295; F. C. Spooner, *Risk at Sea: Amsterdam Insurance and Maritime Europe, 1776–1780* (Cambridge 1983), 18; A. Tenenti and B. Tenenti, *Il prezzo del rischio: l'assicurazione mediterranea vista da Ragusa (1563–1591)* (Rome 1985), 92–97, 286; H. Casado Alonso, 'Los seguros maritimos de Burgos. Observatorio del comercio internacional portugués en el siglo XVI', *Historia. Revista de Facultade de Letras do Porto*, s. 3, 4 (2003): 213–242, 215–216; G. Rossi, *Insurance in Elizabethan England: The London Code* (Cambridge 2016), 75–88; H. Casado Alonso, *El seguro maritimo en Castilla en los siglos XV y XVI* (Valladolid 2021), 45–47.

seeking. In sum, contract and governance innovation opened transacting to competition, raising the overall performance of the insurance industry.[21]

An interpretation as such, though largely convincing, can be further expanded to encompass a broader set of circumstances under which previous forms of risk mitigation have been sided by new ones. For example, should we consider premium insurance and markets specialized in this type of transactions as socially neutral? Likewise, have some groups benefited from the spreading of these innovations to the disadvantage of others? As studies on nineteenth- and twentieth-century capitalism stress, larger attention should be given to the relation between risk allocation and financial innovation, as well as to the cultural background in which the latter emerges.

Empirical investigations suggest that in the early modern insurance business a limited group of players guided the transactions, whereas a large share of those who took sea risks on behalf of affluent merchants were 'followers', lacking of information and adapting to decisions made by someone else.[22]

If one focuses on the way coverage was provided in day-to-day operations, the consequences of contract innovation are easier to detect. Before insurance joint-stock companies developed in the eighteenth century, the most commonly used technique was co-insurance. Derived from other areas of maritime economy, in which pooling was routinely used, it allowed to spread the risks of sea trade among a broad number of actors. Descriptions of how co-insurance was carried out reveal how in everyday business two actors were crucial: the specialized broker and the 'leading insurer'.Those wanting to be insured, after having established the main features of the contract, needed to find people interested in underwriting it. A broker was in charge of this task, making insurers sign the contract,

[21] S. Go, *Marine Insurance in the Netherlands 1600–1870, a Comparative Institutional Approach* (Amsterdam 2009); C. Kingston, 'Governance and Institutional Change in Marine Insurance, 1350–1850', *European Review of Economic History*, 18/1 (2014): 1–18.

[22] C. Kingston, 'Intermediación y confianza', *Ekonomiaz*, 77/2 (2011): 64–85; Ceccarelli, *Risky Markets*, Chapter 11.

one after another. Being each liable only for the amount they accepted to cover, it was necessary to pool together large numbers of underwriters.[23]

Data show how the number of co-insurers has increased over time; in the late sixteenth century, it is possible to find single contracts in which coverage is divided among more than 150 underwriters.[24] This system had, however, the flaw of requiring long negotiations between the insurance buyer and each insurer. Intermediaries were able to circumscribe this problem by adopting a specific marketing strategy; they limited the negotiations to one single individual considered experienced by the others. Having seen the signature of this 'leader', they would accept more easily the terms envisaged in the contract and quickly underwrote it at the same premium.[25]

Differences concerning scale and continuity of those engaged in transacting are visible in almost all early modern markets, but we can rely once more on sixteenth-century Florence for a detailed example. For sake of simplicity, let us consider only the supply side of the market. At one end of the spectrum, one finds occasional actors who carry out their business for few months and underwrite a total of 1–5 contracts at most, though numerically large—about 65% of the total—this group is not relevant in terms of insured values, accounting roughly for 10% of the total. At the opposite end of the spectrum, we find recurrent insurers, underwriting with a frequency of two or more contracts per week without significant interruptions over a rather long period of time (two, three years). Although in terms of insured values this group counts for almost 50% of the total, it is numerically very narrow, coinciding roughly with less than 10% of the total. In between these two opposites typologies, there are at

[23] K. Nehlsen-von Stryk, *L'assicurazione marittima a Venezia nel XV secolo* (Rome 1988), 84; G. Ceccarelli, 'Courtiers et assurances maritimes: les raisons d'une liaison profonde (XIVe-XVIe siècles)', in M. Scherman, A. Wegener Sleeswijk, V. Demont eds., *Le pouvoir des courtiers. Intermédiation marchande et évolution des pratiques commerciales, XIVe-XVIIIe siècles* (Paris 2018), 75–86.

[24] For example, in late sixteenth century Ragusa, see Tenenti and Tenenti, *Il prezzo del rischio*, 181–183.

[25] A clear example comes from the testimony given by the London broker John Julius Angerstein during a House of Commons enquiry in 1810, *Select Committee of the House of Commons … on Marine Insurance* (London: W. Hughes 1810), 121: "If I have a cross risk to make, if it is from America, I go to a box where there are Americans to give me information; and so it is from the Baltic or any other part […] they are the people who can begin the policy for me better than the others, and I can by that means get it done".

least two other classes of investors, making the picture even more complex (see Tables 3 and 4, at p. 89). This multilayered framework tended to replicate a fundamental mismatch among those who bought insurance and those who sold it, since only a fraction of the underwriters was interested in being insured: in sixteenth-century Florence, for example, this ratio was of about one in five (see Table 1, at p. 88). To match the demand coming from insurance buyers, a flexible participation of people only irregularly engaged in the transactions was therefore necessary. Since these latter were not demanding protection from marine risks, other ways to drive them in the business had to be at work.

Specialized brokers and leading insurers had this role, granting this complex ensemble of actors the coordination required to properly function. Intermediation was a distinctive trait of insurance since its beginning in fourteenth-century Mediterranean ports, yet this quickly underwent a process of selection ending up in the hand of few professionals. This was furthermore favoured by regulations often limiting the number of brokers through a licence system. Whether it was Genoa or Venice, Antwerp or Ragusa, Burgos or Florence, by the late sixteenth century the largest share of the transactions was in control of an extremely narrow number of intermediaries, normally just two or three in each location.[26]

A further push to concentration came from leading insurers. Mentions to this group of experts can easily be found in seventeenth- and eighteenth-century sources, revealing that in Amsterdam and London, their reputation was crucial in convincing many *occasional* underwriters to engage in a business they knew little about.[27] Once more, quantitative evidence coming from sixteenth-century Florence is highly illustrative, showing a polarized situation. On the one side, a small group, made of less than 40 underwriters, acted in this role in more than 70% of the total contracts; on the other, almost 70% of those who subscribed a contract

[26] Concerning Genoa, see G. Giacchero, *Storia delle assicurazioni marittime. L'esperienza genovese dal Medioevo all'età contemporanea* (Genoa 1984), 117–136; and Melis, *Origini e sviluppi delle assicurazioni*, 156; on Venice see "Table 2" in Nehlsen-von Stryk, *L'assicurazione marittima a Venezia*, 502–524; on Florence: C. L. Daveggia, 'L'intermediazione assicurativa nel Medioevo', *Assicurazioni*, 52 (1985): 326–372.

[27] For references concerning the Amsterdam and London insurance markets, see Boiteux, *L'assurance maritime à Paris*, 15; Spooner, *Risk at Sea*, 19 and 25; A. H. John, 'The London Assurance Company and Marine Insurance Market of the Eighteenth Century', *Economica*, n. s., 25 (1958): 126–141, 127.

never acted as 'leading insurer' (Table 5, at p. 90). This uneven distribution is further confirmed if one considers the restricted circle of the top 1%, which is made of just five underwriters, who held this position in almost one third of the overall transactions (Table 6, at p. 91). Looking at their identities, one finds that these individuals were not at all ordinary people, essentially coinciding with those in charge of managing the most affluent Florentine merchant-firms. For these firms insurance coverage was vital, as their fortunes were largely dependent from long-distance maritime trade.

Specialized brokers and leading insurers were in the right position to appear reliable to most of the ordinary underwriters, who could follow their lead in subscribing a contract. Likewise, they probably had the positive effect of reducing information costs and risk aversion for actors who were not routinely operating in the market. Conversely, intermediaries and leading insurers reveal that the number of those really having bargaining power was extremely narrow, and that many ended up being just 'followers' of decisions taken by someone else. Their combined action, if considered under this light, clearly had an impact on risk allocation, perpetuating a divide between insiders and outsiders.[28]

However, this passage likely was not just the result of market forces and institutional infrastructure; part of the explanation can also refer to the framework in which it takes place. Marine insurance did not emerge in a vacuum, but intersected a dense rhetoric about risk-taking and its social and economic meaning. To explore this narrative, one can rely on sources coming from business culture, as well as from moral theology. Though apparently distant, these realms shared a common interest for sea trade and the risks deriving from it.

For example, several arguments supportive of insurance are ascribable to discussions carried out by canon lawyers and theologians in the light of religious and legal principles. Among these: that buying and selling risks does not undermine God's absolute power; that a distinctive trait of business rests on the individual assumption of risk; that insurance is socially useful. Commerce and navigation had little to do in setting the premises of this narrative, the breakthrough came from a seemingly peripheral realm, namely that of 'wagering'. Risk forecasting emerged as a viable

[28] G. Ceccarelli, 'Coping with Unknown Risks in Renaissance Florence: Insurers, Friars and Abacus Teachers', in C. Zwierlein ed., *The Dark Side of Knowledge: Histories of Ignorance, 1400 to 1800* (Leiden 2016), 115–138.

option discussing someone rolling a dice or playing head or tails. Already by the late thirteenth century, in discussions about gambling, theologians had introduced the idea that risk could be evaluated and traded for money. A formal analysis of wagering allowed to state that property could be transferred on condition, without undermining God's prerogatives. Gambling served as a model that was later expanded to include several types of agreements and risk-management tools into a specific class—that of the aleatory contract—which were deemed lawful. Concerns about the reasons behind individuals making bets or rolling dices did remain, as well as the link with superstition, drunkenness and other sinful activities. But the point made was that 'moral' issues had no impact on the 'legal' nature of these agreements, which was considered lawful by a large share of scholastic thinkers.[29] Having connected the forecasting of future events to economic value, theologians went in search of a suitable criterion to assess it, thus developing the notion of *par periculi causa* (equal exposition to risk). This is a further step in a process representing risk as an object that can be bought and sold for a given price.[30]

Not surprisingly, scholastic thinkers will transfer this conception from wagering to insurance as soon as the latter started to spread. Marine risk could be depicted as an object that could be actively dealt with, something actors may forecast in economic terms and express through a number, a percentage. This can clearly be seen in arguments developed to remove any suspect of usury from insurance.[31] A first set of thinkers, mainly Dominican friars that followed a thesis developed by Thomas Aquinas,

[29] See, for example, Petrus Johannis Olivi, *Tractatus de contractibus*, in Pierre de Jean Olivi, *Traité de contrats*, ed. S. Piron (Paris 2012), 258–260 (p. III, q. 1); Alexander Lombardus (de Alexandria), *Tractatus de usuris*, in A. M. Hamelin ed., *Un traité de morale économique au* XIV*e* *siècle. Le* Tractatus de usuris *de maître Alexandre d'Alexandrie* (Louvain 1962), 204–205. See also G. Ceccarelli, 'Gambling and Economic Thought in the Late Middle Ages', *Ludica, annali di storia e civiltà del gioco*, 12 (2006): 54–63; C.-O. Doron, 'The Experience of Risk: Genealogy and Transformations', in A. Burgess, A. Alemanni, J. O. Zinn eds., *Routledge Handbook of Risk Studies* (London 2016), 17–26.

[30] Petrus de Trabibus, *Quaestiones de quodlibeta* (Qd. I, q. 40 "Utrum lucrum acquisito in ludo alearum teneatur ipse vincens perdenti sive alii restituere"), Florence, Biblioteca Nazionale, ms. *Conventi Soppressi* D.6.359, fol. 112va; Baldus de Ubaldis, *In quartum et quintum Codicis libros commentaria* (Venice: Iuntas 1599), fols. 16v–17r (lib. 4, rub., §. 4).

[31] G. Ceccarelli, 'Risky Business. Theological and Canonical Thought on Insurance from the Thirteenth to the Seventeenth Century', *The Journal of Medieval and Early Modern Studies*, 31 (2001): 602–652.

argued that risk assumption has different legal meanings depending on the contract considered. This allowed to interpret insurance in terms of a lease contract, through which risks are transferred, until the merchandise safely arrives to destination, to a third party that lawfully deserves a payment, namely the premium.[32]

A more complex approach was supported by Franciscan theologians, that rested essentially on the idea that risk, when suffered by a businessman, was substantially different from risks undertaken by other persons. For many friars, including Peter Olivi, Monaldus of Capodistria, Francesc Eixemenis and Francesco of Empoli, maritime trade was the perfect example of commercial activity whose high risk justified profits. In their view, investments in this type of businesses have a potential value that merchants are able to estimate in advance. This way of reasoning allowed them to support premium insurance and also favoured a vision in which 'navigation' and 'investment risk' practically overlapped. Bernardino of Siena and Giovanni of Prato solved the problem by integrating the Dominican and Franciscans views: like in a lease contract, sea risk can be shifted from one individual to another, but its cost is a matter that specialists experienced in insurance should assess.[33]

It seems no coincidence that, strikingly similar arguments emerged within business culture and its multifaceted literary output, ranging from commerce handbooks, to memoirs for the instruction of youths, or more

[32] Bartholomaeus de Sancto Concordio, *Summa de casibus conscientiae cum supplemento Nicolai de Ausimo* (Venice: [s.n.], 1474), fol. 299v ("Usura 1", §. 24); Petrus Strozzi, *Opusculum de Monte*, in J. Kirshner, 'Storm Over the "Monte commune": Genesis of the Moral Controversy Over the Public Debt of Florence', *Archivum Fratrum Praedicatorum*, 53 (1983): 219–276, 268; Laurentius de Rodulphis, *De usuris*, in *Tractatus universi iuris*, t. 7, "De contractibus, et aliis illicitis" (Venice: Ziletti 1584), fol. 38r.

[33] Petrus Johannis Olivi, *Quodlibet I, quaestio XVII*, ed. by A. Spicciani, 'Gli scritti sul capitale e sull'interesse di fra Pietro di Giovanni Olivi. Fonti per la storia del pensiero economico medievale', *Studi Francescani*, 73 (1976): 317–321; Monaldus Iustinopolitanus, *Summa* (Lyon: Petrum Baleti 1516), fol. 285ra-rb; Francesc Eixemenis, *Tractat d'usura*, ed. J. Hernando I. Delgado (Barcelona 1985), 65–66; Franciscus de Empulis, *Questio de monte*, ed. L. Armstrong, 'The Politics of Usury in Trecento Florence: The *Questio de monte* of Francesco da Empoli', *Mediaeval Studies*, 61 (1999): 1–44, 34; Bernardinus Senensis, *Quadragesimale de evangelio aeterno*, in Bernardinus Senensis, *Opera Omnia*, 4 vols (Florence 1956), IV: 272–273; Ioannis de Prato, *Contractus*, Padua, Biblioteca Universitaria, ms. 694, fol. 145r. See also G. Ceccarelli, 'Quando rischiare è lecito. Il credito finalizzato al commercio marittimo nella riflessione scolastica tardomedievale', in S. Cavaciocchi ed., *Ricchezza del mare. Ricchezza dal mare. Secc. XIII-XVIII* (Florence 2006), 1187–1199.

structured treatises on household management. As I shall discuss in the rest of the essay, in the writings of merchants maritime risks experienced a semantic change, exemplifying a cultural climate that developed a set of themes supportive of insurance and risk-shifting. Whereas in the fourteenth century the approach was rather narrow, the later narrative discussed navigation risks and premium insurance side by side, with praiseworthy depictions of individuals taking responsibilities for decisions they make, embodied by the expert merchant capable of thwarting (if not foreseeing) potential mishaps.

In the fourteenth century, references to navigation risks, and the business tools to confront them, were confined to technical trade literature (merchant manuals) with a rather narrow meaning. A good example is provided by Francesco Balducci Pegolotti who essentially restates the formulae customarily present in contracts envisaging a clause about the cargo's safe arrival. His *Pratica di mercatura*, compiled precisely when and where premium insurance started being used, does not mention it, making, however, several references to bottomry and maritime exchange. Contrary to what occurs in theological writings, mentions to "risk of sea, men, fire, or pirates", "risk and peril" suffered either by the carrier or the shipper, and commodities "safely discharged on land" did not originate any discussion about the economic value of sea risks. At most, they are considered for their cost function with reference to specific merchandise, bought in one market and transported to another where it will be sold.[34]

This tendency continues when premium insurance is eventually mentioned in this type of writings. For instance, in the notebook compiled by Ambrogio de Rocchi at the end of the fourteenth century 'insurance' appears, along with freight, land transport and duties in the list of items to take into consideration when assessing what he names as the *prime cost* (*primo costo*) of doing business between Valencia and Flanders. These lists include at times references to premium rates, which are, however, specified only in the light of the broader category of ancillary

[34] P. Spufford, 'Late Medieval Merchant's Notebooks: A Project. Their Potential for the History of Banking', in M. A. Denzel, J.-Cl. Hocquet, H. Wittho eds., *Kaufmannsbücher und Handelspraktiken vom Spätmittelalter bis zum beginnenden 20. Jahrhundert/Merchant's books and mercantile* Pratiche *from the Late Middle Ages to the Beginning of the Twentieth Century* (Stuttgart 2002), 47–62; Francesco Balducci Pegolotti, *La Pratica della Mercatura*, ed. A. Evans (Cambridge, MA 1936), 45, 75, 196, 242, 321, respectively.

costs, being this latter the main point a merchant should assess.[35] As it has been suggested by Bruno Dini, these rates reflect nothing more than a customary evaluation of sea risks, in which no distinction among the various factors involved is pointed out. Ambrogio de Rocchi appears to imply that expertise in insurance can be acquired only through practice, not by reading a handbook written by someone else.[36]

A few decades later, a slight change can be perceived in Giovanni da Uzzano's *Pratica di mercatura*. His writing is among the first attempts to assemble a proper instruction manual for merchants, and this could explain the reason why sea risks are no longer mentioned only as contractual formulas or in terms of ancillary costs. Clearly, the well-established approach was still prevailing with a number of indications about standard prices required to cover shipments to Tuscan ports from several parts of Europe, including Southampton, Collioure and Aigues-Mortes.[37] The *Pratica* continued to frame marine insurance as one cost item among others, but also suggested that readers should be aware of some basic elements influencing premium rates. When discussing business between England and Tuscany, these two approaches are combined: "And concerning marine insurance from London to Pisa, it is always between 12 and 15 florins percent, and at times more depending to threats that are known of, whether of pirates, or of others".[38] It was no longer just a matter of providing customary prices, da Uzzano now warned about contingent risks. In doing that, he admits that, along with commercial practice, written texts may also help to train merchants in risk forecasting and decision-making. For instance, in deciding whether to take insurance or not, to save the money of premiums: "there is the risk as well, which

[35] B. Dini, *Una pratica di mercatura in formazione (1394–1395)* (Florence 1980), 138 and 187; Spufford, 'Late Medieval Merchant's Notebooks', 49 and 59.

[36] Dini, *Una pratica di mercatura*, 61.

[37] Giovanni di Antonio da Uzzano, *La pratica della mercatura*, in Gian Francesco Pagnini del Ventura, *Della decima e di varie altre gravezze imposte dal comune di Firenze*, 4 vols (Lisbon-Lucca [Florence: Bouchard] 1766) IV: 122, 131, 174; Spufford, 'Late Medieval Merchant's Notebooks', 50, 53, 55.

[38] Giovanni di Antonio da Uzzano, *La pratica della mercatura*, 119: "E per sicurtà di mare da Londra a Pisa sempre è da fior. 12 in 15 per 100 di valuta, e quando più secondo i pericoli che sentono, o di corsali, o d'altro".

has to be assessed in the calculation, that if you do not buy insurance you can spare it if you safely arrive".[39]

Yet, for a further shift to occur, a slightly different literary framework was needed, as well as writers at ease with both humanistic and business culture. Navigation became a typical metaphor adopted in merchants' autobiographies to depict how one should manage its own life and wealth, in a storytelling in which the skilled shipmaster acquires the role of main character.[40] A clear example is offered by the dialogue *On the Family* by Leon Battista Alberti, a sophisticated version of merchant notebooks and memoirs. The metaphorical use of sea risks likely derived from late medieval medical literature—an area which Alberti touched in his work *Momus*—where the image of the expert navigator exemplified how a physician should act in making a diagnosis and developing a cure.[41]

This image is restated to fit in the context of good household management that an idealized *pater familias* should follow. According to Alberti, protecting one's own household is like sailing and requires knowing "how to steer according to the wind's favour […] toward the harbor […], how to strike and furl the sails […] in storms and in such misfortunes". It is not simply a matter of knowledge, but rather of applying it to a given framework, therefore, "when fortune is tranquil and good-natured, but still more when the times are stormy, the good father never departs from the pilot of reason". This allows him to confront the risks coming from

[39] Giovanni di Antonio da Uzzano, *La pratica della mercatura*, 159: "[…] e più e' rischio che si dee stimare quello è ragione, che se non pigli sicurtà, te l'avanzi andando a salvamento, […]".

[40] An in depth analysis of how economic and social historians—including Federigo Melis, Christian Bec, David Herlihy and Christiane Klapisch-Zuber—have used this kind of sources can be found in A. Cicchetti and R. Mordenti eds., *I libri di famiglia in Italia*, Vol. 1: *Filologia e storiografia letteraria* (Rome 1985), 29–33. For an overview on this type of literature, see also A. Cicchetti, *I libri di famiglia in Italia*, Vol. 2: *Geografia e storia* (Rome 2001).

[41] Arnaldus de Villa Nova, *Repetitio Super Canonem Vita Brevis*, in M. R. McVaugh and L. Garcia Ballester, 'Therapeutic Method in the Later Middle Ages: Arnau de Vilanova on Medical Contingency', Caduceus: A *Humanities Journal for Medicine and the Health Sciences*, 11/2 (1995): 73–86, 76. See also F. Wallis ed., *Medieval Medicine, A Reader* (Toronto 2010), 211; and M. Solomon, 'Breaking Non Natural Bread: Alimentary Hygiene and Radical Individualism in Juan de Aviñón's *Medicina sevillana*', in M. Piera ed., *Forging Communities: Food and Representation in Medieval and Early Modern Southwestern Europe* (Fayetteville 2018), 147–158, 149; L. Boschetto, 'Democrito e la fisiologia della follia. La parodia della filosofia e della medicina nel "Momus" di Leon Battista Alberti', *Rinascimento*, II s., 35 (1995): 3–29.

the sea or life. The expert navigator—continues Alberti—“remains alert, foresees from a good distance every mist of envy, every storm cloud of hate, every lightning stroke of enmity”, and “encountering any contrary wind, any shoal and danger [...] he acts the part of the experienced expert sailor”. But when it comes to skills, judgements are guided by information individuals can acquire, and choices should also be a matter of recalling “with what winds others have sailed, how they rigged their ships and how they sighted and avoided every danger”.[42]

The theme that *On the Family* puts forward is further developed in a number of later writings as a mean to tackle the unstable condition of human life. The image of a calm sea suddenly turning into a storm becomes for instance a recurring one, even Nicolò Machiavelli will exploit it to blame those princes who are not anticipating a political turnaround.[43] In the *Zibaldone* written by Giovanni di Paolo Rucellai, it is stated in three different versions.[44] Rucellai was an important Florentine merchant in close relations with Alberti, to whom he commissioned several architectural works.[45] His approach to the topic clearly moves from the dialogue *On the Family*, arguing in favour of an active role, grounded on observation and expertise, when dealing with sea risks, as well as with the contingency of life. “We must not be subjected to anything – Rucellai argues – on the contrary we need to prepare to any event, not only what ordinarily happens but whatever might

[42] R. Neu Watkins, *The Family in Renaissance Florence: A Translation of I Libri Della Famiglia* (Columbia, SC 1969), 36–37; Leon Battista Alberti, *I Libri della Famiglia*, eds. R. Romano, A. Tenenti, F. Furlan (Bari 1960), 17–18: “Non è solo officio del padre della famiglia, come si dice, riempire il granaio in casa e la culla, ma molto più debbono e’ capi d’una famiglia vegghiare e riguardare per tutto [...] sapere con l’aura [...] condursi in porto [...], ritrarre e ritendere le vele a’ tempi, e nelle tempestati, in simili fortune e naufragii [...]; e nella tranquillità e bonaccia della fortuna e molto più ne’ tempestosi tempi, mai partirsi dal timone della ragione e regola del vivere, stare desto, provedere da lungi ogni nebbia d’invidia, ogni nugolo d’odio, ogni fulgore di nimistà in le fronti de’ cittadini, e ogni traverso vento, ogni scoglio e pericolo in che la famiglia in parte alcuna possa percuotere, essere ivi come pratico ed esercitatissimo navichero, avere a mente con che venti gli altri abbiano navigato, e con che vele, e in che modo abbiano scorto e schifato ciascuno pericolo [...]”.

[43] Nicolò Machiavelli, *The Prince*, translated by J. B. Atkinson (Indianapolis 1976), 357–358, Chapter 24.

[44] Giovanni di Pagolo Rucellai, *Zibaldone*, G. Battista ed. (Florence 2013), 365, 384, 420.

[45] Rucellai, *Zibaldone*, xxxviii.

occur".[46] Not surprisingly this optimistic approach about the possibility of preventing mishaps (if not even forecasting them) comes from an individual who built his fortunes on maritime trade, proudly recalled on his coat of arms in shape of a sail blowing in the wind.[47]

In the second half of the fifteenth century, the model of the capable navigator is rooted in business culture to the point that it can be transferred to other specialists of sea risks, like the expert underwriter. Managing risks the proper way, i.e. by shifting them to someone else after a careful economic evaluation, comes to be a typical trait of how merchants self-represented themselves.[48]

Rucellai's *Zibaldone* is a good example of this transition, given that its literary vein is intertwined with the traditional one of business instructions. The connection between risk and expertise is restated from the point of view of a merchant providing guidance to his sons about how markets work—including marine insurance ones. Information flows, accurately recorded to build solid experience, are depicted by Rucellai as the key for a successful business strategy.[49] This memoir is written exactly in the same years when another merchant, Benedetto Cotrugli, offers in his handbook the clearest representation of this trend. At the crossroad of the two genres of merchant manuals and treatises on the family, the *Book of the Art of Trade* combines elements already visible in Giovanni da Uzzano with those of Leon Battista Alberti.[50] Sea risks appear to emerge as a

[46] Rucellai, *Zibaldone*, 384: "niuna cosa ci dèe essere subita, anzi dobbiamo tutte le cose provedere, non solamente quello che suole avenire ma tutto ciò che fare si può".

[47] N. Scott Baker, *In Fortune's Theater. Financial Risk and the Future in Renaissance Italy* (Cambridge 2021), 136–149.

[48] G. Maifreda, *From Oikonomia to Political Economy: Constructing Economic Knowledge from the Renaissance to the Scientific Revolution* (Farnham 2012), 43–72; G. Todeschini, 'Theological Roots of the Medieval/Modern Merchants' Self-Representation', in M. C. Jacob, C. Secretan eds., *The Self-Perception of Early Modern "Capitalists"* (New York 2008), 17–46.

[49] Rucellai, *Zibaldone*, 26–27.

[50] G. Favero, 'A New Edition of Benedetto's Cotrugli The Book of the Art of Trade', in Benedetto Cotrugli, *The Book of the Art of Trade*, C. Carraro and G. Favero eds. (London 2017), 9–19. On the relationship between Alberti's *On the Family* and Cotrugli's *Book of the Art of Trade* see Ugo Tucci's 'Introduction' to Benedetto Cotrugli, *Il libro dell'arte di mercatura*, U. Tucci ed. (Venice 1990), 63.

realm of knowledge in which instructions can be given well beyond practical training, by engaging in some kind of analysis regarding the factors affecting them.

Cotrugli is the first to provide a detailed list of the elements considered by businessmen in evaluating insurance premiums.[51] He argues that "they must be constantly enquiring and asking about pirates or other ill-intentioned people, about wars, truces and reprisals, and all the things that can threaten a sea voyage". In doing that, he even appears to trace a distinction between types of risks, beginning with contingent ones, like piracy and military clashes. He then focuses on structural risks, namely those that are stable over a period of time. First of all, the route to follow, which should be considered with great care; he advises that insurers "must keep navigation charts on their desks and be familiar with the ports and the beaches, the distances between one place and another". Other important elements to take into account were also the type of vessel and the reputation of those who own it, as well as the type of merchandise insured and its possibly perishable nature. Therefore, Cotrugli warned to "also consider the status of the ship-owners and the merchants who are seeking insurance, and the ships, as well as their cargo". In line with Alberti and Rucellai, however, experience and power of observation are essential features of this description. The ability of individuals to gather any piece of information and process it, their skills in keeping "their eyes open for all news from the seas", became the precondition for any correct evaluation of sea risks.[52]

Cotrugli's words reveal that premium insurance is the perfect setting where ideas about risk and its economic value can be explored. It was not the only one, however, as the discussions about gambling show. Within merchants' culture and beyond, as early as the thirteenth century, business partnerships, General Average and other risk-sharing tools need also to be

[51] The risk factors provided by the *Book of the Art of Trade* essentially match those emerging by taking into analysis insurance contracts of the fourteenth-sixteenth centuries, see: Ceccarelli, 'The Price for Risk-Taking', 5–6.

[52] Cotrugli, *The Book of the Art of Trade*, 75; Cotrugli, *Il libro dell'arte di mercatura*, 176: "E per dire delli sicuratori, li ricordiamo che gli è di bisogno d'avere et aprire molto l'occhio alle novelle del mare, et al. continuo domandare et inquirere de corsali et male genti, et guerra, triegue, ripresaglie et tucte quelle cose che possono perturbare lo mare. Debbono tenere nello scriptoio loro la carta del navicare et sapere porti et spiagge, distantie di luogho et considerare la conditione de padroni et delli mercanti che asicurare si fanno, et delli navili, et considerare le mercantie".

considered. Compared to insurance their treatment is less systematic, so a broad spectrum of writings by jurists, theologians and even teachers of commercial mathematics must be addressed if we are to arrive at a clearer image of how marine risks are discussed in this specific framework.

Writings on commercial mathematics offer precious information on how merchants were expected to cope with the damages suffered by ships and cargos during navigation. At the end of the fifteenth century, Luca Pacioli summarized a two hundred years long tradition of business cases related to sea trade. Some of these clearly echo General Average, referring to the recovering of wine barrels that lost part of their content in a storm, or the expenses made for damaged ship equipment. As one would expect, the *Summa de arithmetica* describes in detail the type of calculations to be made in case of mishaps.[53] However, these examples are not confined to this literary genre, since similar discussions can also be found in legal writings such as Paolo di Castro's readings on the *Digest* (1429). For instance, in commenting the *Lex Rhodia*, quite surprisingly mathematics is used to address issues like the damages suffered by shipped goods during a jettison.[54]

In all these cases, a basic principle that merchants learnt at school was routinely applied, the so-called rule of three. It allowed, when knowing three elements of a proportion, to calculate the fourth unknown datum, without having to use equations. In practical terms, this implied to proportionally distribute costs among all the actors involved. As a result, sea risks are essentially treated from the perspective of mutual support, as noted by Olivia Remie Constable, "equalization of risks" is a

[53] Lucas de Burgo S. Sepulchri, *Somma di arithmetica, geometria, proporzioni e proporzionalità* (Venice: Paganinus de Paganinis 1494), fols. 153r–154v; in particular fol. 153r, n. 43, fol. 153v, n. 48. Another fifteenth-century mathematician discussing many problems connected to maritime trade is Filippo Calandri, author of the first printed book of commercial arithmetic: F. Calandri, *De Aritmetica opuscolum* (Florence: Lorenzo Morgiani and Johann Petri 1492), fols. 63v–65r; elsewhere, in a handwritten collection of problems now available in critical edition, Calandri tackles a case of jettison in form of a brainteaser: Idem, *Aritmetica: secondo la lezione del Codice 2669 (sec. 15.) della Biblioteca Riccardiana di Firenze*, G. Arrighi ed. (Florence 1969), 193, 205–207. Cp. W. Van Egmond, *Practical Mathematics in the Italian Renaissance: A Catalog of Italian Abbacus Manuscripts and Printed Books to 1600* (Florence 1980).

[54] Paulus de Castro, *Super secunda parte Digesti veteris* (Venice: Andreas Calabrensis Papiensis, 1492) [unnumbered folios] in D.14.2.4.2 *Cum autem*. On the calculative dimension of General Average see the contribution of Sabine Go in this volume.

"common denominator" in these discussions.[55] Not by chance, commercial arithmetic includes most cases concerned with navigation risks within a broader discussion centred on partnerships (*ragioni di compagnia*).

The same line of argument emerges from legal texts, in starting with the risk-sharing point of view, explicitly linking the concept of common good to General Average. This connection appears already by mid-fourteenth century in the commentary to the *Lex Rhodia* by Bartolus of Saxoferrato. He does so by establishing an analogy between a fire threatening to destroy a group of houses and the jettison of a cargo: "when someone's house is demolished by the neighbors to avoid the fire to spread, the neighbors must make reparation to the house owner, since the demolition was done for the common good". These neighbours, Bartolo claims, have a shared responsibility, just like the owners of the jettisoned goods, the shipmaster and all the subjects involved in General Average do.[56] This analogy, as well as the reference to common good, will later become a recurring argument. For example, Baldus de Ubaldis discussing the same passage will closely follow Bartolo's words, while Paolo di Castro will connect the argument of common good to other parts of the *Lex Rhodia*.[57] More in general, the language through which jettison is addressed hints at mutual aid, with a dominance of nouns and verbs referring to the act of 'bringing together', such as *contributio*, *contribuere*, *collatio*, *conferre*.[58]

[55] O. Remie Constable 'The Problem of Jettison in Medieval Mediterranean Maritime Law', *Journal of Medieval History*, 20 (1994): 207–220, 208–209.

[56] Bartolus de Saxoferrato, *Lectura super prima et secunda parte Digesti veteris* (Venice: Baptista de Tortis 1493), fol. 97rb, in D.14.2.2.pr. *Si laborante*: "Domini iactarum mercium habent actionem cum magistro, et magister cum ceteris non solum habet actionem: sed etiam retentionem mercium: ut fiat contributio. Item ... quando domus alicuius destruitur a vicinis: ne ignis ulterius transeat quod debeat ei emendari a vicinis: quia pro communi utilitate factum est".

[57] Baldus de Ubaldis, *Tomus secundus in Digestum vetus* (Lyon: Joannes Thierri Lingonensis 1541), fol. 79va, in D.14.2.2.pr. *Si laborante*; Paulus de Castro, *Super secunda parte Digesti veteris*, in D.14.2.4.2 *Cum autem*: "damnum ... passus est propter communem utilitatem omnium".

[58] For example, Bartholomaeus a Saliceto, *In Secundam Digesti veteris partem* (Frankfurt: Lazarus Zetznerus 1615), col. 340 in D.14.2.4pr. *Navis* and D.14.2.1 *Sed si navis*; also, Baldus de Ubaldis, *Tomus secundus in Digestum vetus*, fol. 79vb in D.14.2.2.4 *Portio autem* and Paulus de Castro, *Super secunda parte Digesti veteris*, [unnumbered folios] in D.14.2.4pr. *Navis*.

And this was precisely how canon lawyers and theologians also framed their discussions about long-distance maritime trade. By mid-thirteenth century, beginning with Geoffrey of Trani, scholasticism stood in favour of contractual tools allowing merchants to jointly take care of the risks and damages of navigation (*communicare pericula et damna*).[59] The emphasis on 'sharing' made it easy to draw a clear watershed between these mutual arrangements and usury, thus distancing the discussion from the controversies related to canon law. By embracing this line of reasoning, Thomas Aquinas will make it extremely influential in the following centuries, to the point that even civil lawyers will often refer to the *communicare pericula et damna* formula.[60]

The resulting narrative, by linking risks to damages, made sea risks as something difficult to evaluate in advance and thus unworthy of being discussed in detail. As a consequence, these discussions do not provide a suitable framework for risk quantification. In the texts addressing General Average not only the word *periculum* is seldom mentioned, but it is never attached to terms that could hint at an economic potential, like price (*pretium*) or estimate (*extimare*).[61] As seen above, these sources reveal that a calculative approach to risk takes shape only ex-post, when the potential threat has materialized and actually become a 'loss'; only in these situations, a vocabulary suited to express the value of objects is used. Exceptionally *periculum* is framed in a hypothetical scenario, treated as an event that might occur in the future, as Baldus de Ubaldis comment on *Lex Rhodia* exemplifies. However, even in these cases no effort is made to numerically estimate maritime risk (*periculum maris*), being this latter

[59] Goffredus de Trano, *Summa super tituli decretalium* (Venice: Bernardinus Stagninus 1491), fol. 80rb-va in X. 5.19.19 *Naviganti*.

[60] Thomas Aquinas, *Summa Theologiae*, II, II, in *Opera omnia*, 3 vols (Parma: Fiaccadori 1853), 281a–282ab. A crucial role in spreading Aquinas' view is played by manual for confessors compiled by canon law experts in the fourteenth and fifteenth centuries, such as that by John of Freiburg: see Johannis de Friburgo, *Summa confessorum* (Lyons: Henricus Vortoma, 1518), fol. 87rb. Pier Filippo della Cornia provides a good example of how the theological approach spreads among civil lawyers: Petrus Philippus Corneus Perusinus, *In primam Codis partem* (Lyon: Eredi Giunta 1553), fol. 118vb, in C. 2.3.9 *Si pascenda*.

[61] Any reference to risk (*periculum*) is missing from Bartolus of Saxoferrato's comment on *Lex Rhodia*, as well as from that of Bartholomew of Saliceto, another relevant jurist of the late thirteenth, early fourteenth century. At best the term is generically linked to the risk of shipwreck, cp. Paulus de Castro, *Super secunda parte Digesti veteris*, [unnumbered folios] in D.14.2.6 *Navis adversa*: "quando navis non fuit in periculo perditionis".

only considered in the light of prevention, depicted as a threat to avoid (*evitare*) rather than an event to evaluate and forecast.[62]

As argued earlier, similar dynamics emerge if one looks at commercial mathematics. While most risk-sharing agreements simply needed an ex-post assessment of profit and losses, some also required the forecasting of potential risks and returns.[63] When a partnership was abruptly terminated by an unexpected event, for example, how should shares be calculated? This implied a change of perspective in the direction of probability calculus that, apart from few exceptional cases, did not yet occur.[64] The 'rule of three' was so rooted in merchants' culture that it was also applied to predict future events, falsely assuming that the future

[62] Baldus de Ubaldis, *Tomus secundum in Digestum vetus*, fol. 79vb, in Dig.14.2.5pr. *Amissae navis*: "Pro nave amissa non habet locum collatio, sed pro arbore cesa ut evitetur periculum maris et mercium collatio locum habetur." Cp. also Paulus de Castro, *Super secunda parte Digesti veteris*, [unnumbered folios] in D.14.2.2.1 *Si conservatis*: "quando mercatores vident tempestatem si non dubitant periclitari non debent magistro dicere quid habeat agree [...] puta quod navem exarmet [...] idem si fecit ne perclitaretur".

[63] Examples can be traced since the early fourteenth century. Paolo Gherardi, *Opera matematica. Libro di ragioni - Liber habaci. Codici magliabechiani classe XI, nn. 87 e 88 (sec. XIV) della Biblioteca Nazionale di Firenze*, ed. G. Arrighi (Lucca 1987), 145–146; Gratia de' Castellani, *Chasi sopra chonpagnie. Dal codice Palatino 573 della Biblioteca nazionale di Firenze*, ed. M. Pancanti (Siena 1984), 32–39; *Libro d'abaco. Dal Codice 1754 (sec. XIV) della Statale di Lucca*, ed. G. Arrighi (Lucca 1973), 75–79; Filippo Calandri, *Una raccolta di ragioni. Dal Codice L. VI. 45 della Biblioteca comunale di Siena*, ed. D. Santini (Siena 1982), 5–7, 26–27; Lucas de Burgo S. Sepulchri, *Somma di arithmetica*, fol. 152r, n. 31.

[64] It is important to stress that the few hinting at the solution later provided by Pascal, did not so in referring to risk-sharing partnership and sea trade, but to wagering; for example, Filippo Maria Calandri who discusses how to divide a stake between two ball players, in one case, and two crossbowers, in the other: Filippo Calandri, *Una raccolta di ragioni. Dal Codice L. VI. 45 della Biblioteca comunale di Siena*, 13–14, 39–40. Also I. Schneider, 'The Solution of the Two Main Problems Concerning Games of Chance in the Late European Middle Ages and the Possibility of Islamic Sources', *Bollettino di Storia delle Scienze Matematiche*, 23/2 (2003): 99–108. Other two examples, found both in anonymous handwritten collections of commercial mathematic problems, are edited and discussed by R. Franci, 'Una soluzione esatta del problema delle parti in un manoscritto della prima metà del Quattrocento', *Bollettino di Storia delle Scienze Matematiche*, 22/2 (2002): 260–265; L. Toti Rigatelli, 'Il "Problema delle Parti" in Manoscritti del XIV e XV Secolo', in M. Folkerts, U. Lindgren eds., *Mathemata. Festschrift für Helmuth Gericke* (Wiesbaden-Stuttgart 1985), 229–236, 232–234.

would develop following the same pattern of the past.[65] Only by mid-seventeenth century mathematicians will be able to design a theory suited to go beyond this traditional approach.[66]

Alternatives to premium insurance persisted over a long period not just in business practice, but also in the narrative describing them. As a result, sea risks continued to be framed in ways that varied according to the context in which they were discussed. Considering them as something that could be evaluated in advance, and therefore transferred in exchange for money, made little sense in the perspective of partnerships, General Average and similar risk-sharing tools. What mattered was the existence of well-functioning mitigation systems to mutualize losses. Commercial mathematics offered practical means to achieve this, while the concept of common good provided the moral rationale for a rhetoric emphasizing collective responses to marine risks.

This double-pronged approach goes side by side with the line of reasoning developed at the same time about premium insurance, suggesting a long-term coexistence of these views. As seen for gambling, these discussions were never totally self-confined, revealing unexpected points of contacts and combinations. The image of the expert ship master introduced by Alberti provides a good case in point. While the individual decision-maker is clearly at the centre of the stage, the choices he takes impact the larger dimension of household and lineage. Not by chance the equivalent of the skilled ship master is the exemplary *pater familias*, who is in charge of safely delivering his wealth to the next generations, thus making it clear that is not simply a matter of 'personal' liability.[67]

[65] N. Meusnier, 'Le Problème des partis peut-il être d'origine arabo-musulmane?', *Journ@l électronique d'Histoire des Probabilités et de la Statistique/Electronic Journ@l for History of Probability and Statistics*, 3/1 (2007): 1–14.

[66] I. Hacking, *The Emergence of Probability: A Philosophical Study of Early Ideas about Probability, Induction and Statistical Inference* (Cambridge 1975), 12, 57–62; P. Bernstein, *Against the Gods: The Remarkable Story of Risk* (New York 1996), 60–72.

[67] Neu Watkins, *The Family in Renaissance Florence*, 36–39; Leon Battista Alberti, *I Libri della Famiglia*, 17–19. Not by chance, this whole passage revolves around the words of Benedetto Alberto, Leon Battista's grandfather, who connects the material duties of the exemplary "*padre della famiglia*" (36, 17) to moral ones. This combination is presented as the key to avoid a household from ruin ("*ruinare*", 38, 18) and pass a family's fortune from one generation to another. This intergenerational bond is pushed even forward when Benedetto Alberto claims that "the old, then, should be common fathers to all the young" (39, 19).

Cotrugli provides a further example of how the two levels can combine. As seen above, making judgements on the basis of personal expertise is a distinctive feature of the ideal insurer, but the emphasis on individual skills is only part of the picture. The *Book of the Art of Trade* devotes a full chapter to marine insurance, granting full recognition to a contract that until then had been given little space in merchant handbooks. The opening lines of this chapter are revealing of a converging narrative where the quantification and shifting of maritime risks go along with a broader collective effort to manage them. Premium insurance is defined as "convenient and useful not only to the merchants that insure and take out insurance, but also most beneficial to cities and republics".[68]

Cotrugli's words are not a novelty. Since the beginnings of the thirteenth century, scholasticism had developed a literary cliché made of long-distance trade and brave merchants supplying cities in need of provisions. The risk merchants took going by sea was seen as crucial in legitimizing their profits, as well as in granting them a public recognition for their role. The key-concept used, like in Bartolus of Saxoferrato discussion on General Average, is 'common good', but it was only in the following century that Bernardino of Siena explicitly linked this line of reasoning to insurance. The usefulness of insurance is directly connected with its support to the spreading of maritime trade, which is among the primary sources of wealth for a city (or a state). Since they take risks on behalf of the community, thus carrying out some form of civic duty, underwriters have the right to earn premiums.[69]

Not only this theme will inspire Cotrugli, but later will become popular to the point of spilling over from the realm of theology to political discourses and economic ideas, countering the spread of less positive narratives depicting insurers as selfish profiteers. Examples of this can be found in the speech Queen Elizabeth I delivered when the London Chamber of Assurance was reformed in 1601, as well as in the seventeenth-century French bestseller on maritime trade, Estienne

[68] Cotrugli, *The Book of the Art of Trade*, 74; Cotrugli, *Il libro dell'arte di mercatura*, 175: "Lo sichurare è uno commune utile et commodo non solamente a mercanti che asicurano e si fanno asichurare, ma etiamdio egli è commodissimo ale ciptà e le republiche".

[69] Bernardinus Senensis, *Quadragesimale de evangelio aeterno*, IV: 273; Ceccarelli, 'Risky Business', 616, 629–630.

Cleirac's *Us et coustumes de la mer*.[70] The long-lasting success of this line of reasoning takes us back to our departure point. Depicting underwriting in terms of a collective effort carried out by a community of citizens shows how the relation between risk-shifting and risk-sharing continued to be multifaceted. At the same time, emphasizing extremely familiar arguments made contractual innovation not only more comprehensible, but also fully compliant with civic values. It was essentially a matter of extending to the expanding business of insurance, those well-established narratives about lending money to the city, or investing in local charitable institutions that were—as noted by Anthony Molho—presented as the standard way for citizens of "drawing profit from the state".[71] The connection was strong to the point it worked the other way around as well. When new forms of charitable pawnbroking (*monte di pietà*) did emerge, it seemed obvious to equal them to insurance. Under this light it could be easily claimed that, confronting the risks of sea trade, was evidence of public commitment that signalled social rise and civic inclusion.[72]

This rich imagery—jointly developed by merchants, mathematicians, jurists and theologians—was something more than a rhetorical exercise. Such ideas clearly mirrored (and resonated with) the functioning of markets run by small groups in need of investors granting coverage even if not involved in maritime trade. Seen from this perspective, the expansion of the insurance business taking place between the thirteenth and the sixteenth centuries acquires a richer meaning. It suggests that an

[70] L. Lobo-Guerrero, *Insuring War: Sovereignty, Security* (New York 2012), 27; Estienne Cleirac, *Us et coustumes de la mer, divisées en trois parties* (Bordeaux: Jacques Mongiron Millanges 1661), 215; on this F. Trivellato, *The Promise and Peril of Credit. What a Forgotten Legend About Jews and Finance Tells Us About the Making of European Commercial Society* (Princeton 2019), 51–52.

[71] A. Molho, 'The State and Public Finance: A Hypothesis Based on the History of Late Medieval Florence', *The Journal of Modern History*, 67 (1995): Supplement 124.

[72] See, for example, *Consilium almi collegii doctorum utriusque inclite civitatis Perusii super montem pietatis* in *Pro Monte Pietatis* (Venice: Johannes Tacuinus 1494–1498), [unnumbered pages, but fol. 31r]. It is no coincidence to find the above-mentioned Pier Filippo della Cornia among the lawyers who wrote this legal text in 1469.

interaction between narratives about risk, and the development of risk-management tools, was at work far earlier than recently argued by Jens Beckert and Richard Bronk.[73]

If we look at the way markets actually worked, it was not just a matter of contract and institutional innovation, which proves to be efficient by being able to match an increasing demand for insurance and to include a larger number of underwriters. The expansion in scale did not overturn previously existing asymmetries but rather tended to reproduce them. On the one hand, there are groups needing protection for their maritime business, who control the market thanks to their bargaining power. On the other, there are 'followers' who can provide this protection thanks to risk-shifting innovations designed for this purpose, and supported by narratives promoting their adoption.

This latter is, however, slower than claimed by earlier scholarship. The customary risk-sharing approach—whether it concerned tools or ideas—was not all of a sudden erased by the creation of premium insurance. As this paper shows, the rise of this latter can no longer be explored, without taking into account the resilience of the former.

Appendix

See Tables 1, 2, 3, 4, 5, and 6.

[73] J. Beckert, R. Bronk, 'An Introduction to Uncertain Futures', in J. Beckert, R. Bronk eds., *Uncertain Futures: Imaginaries, Narratives, and Calculation in the Economy* (Oxford 2018), 1–38.

Table 1 Subscriptions in the role of insurance buyer and underwriter in Florence (1524–1526)

Type of subscriber	*In the role of insurance buyer*			*In the role of underwriter*		
	No. of subscribers	*No. of contracts*	*Value insured (in florins)*	*No. of subscribers*	*No. of shares*	*Value insured (in florins)*
Subjects subscribing both as underwriter and insurance buyer	75	797	621,300.5	72	3282	278,853.3
Subjects subscribing only as underwriter or insurance buyer	39	82	36,495.0	248	5210	380,792.2
"Ufficiali alle sicurtà"	1	2	3600.0	–	–	–
Unspecified/Non-identifiable subscriber	–	–	–	–	24	1750.0
Total	115	881	661,395.5	320	8516	661,395.5

Source Pisa, Archive of the *Scuola Normale Superiore*, *Salviati I*, "Libri di Commercio", 70, cc. 3r–144r

Table 2 Insured values by amount underwritten in Florence in a selected trimester (March–May 1526)

Value insured in florins (by amount underwritten)	*Subscribed shares*		*Value insured*	
	No.	*%*	*Florins*	*%*
<49	31	4.1	793.3	1.3
≥ 50 < 100	389	51.1	19,655.0	32.3
≥ 100 < 200	297	39.0	30,700.0	50.6
≥200	44	5.8	9,625.0	15.8
Total	761	100.0	60,773.3	100.0

Source Pisa, Archive of the *Scuola Normale Superiore*, *Salviati I*, "Libri di Commercio", 70, cc. 3r–144r

Table 3 Contracts subscribed, by frequency and temporal extension of underwriters, in Florence (1524–1526)

		No. of underwriters by subscription frequency (on monthly basis)				
		<0.25	*≥ 0.25 < 0.50*	*≥ 0.5 < 1.00*	*≥1.00*	*Total*
No. of underwriters by length of their activity in the interval 1524–1526 (in months)	≤ 9	174	3	1	0	178
	> 9 ≤ 18	39	17	3	1	60
	> 18 ≤ 24	4	11	17	1	33
	>27	0	6	17	27	50
	Total	217	37	38	29	321

Source Pisa, Archive of the *Scuola Normale Superiore*, *Salviati I*, “Libri di Commercio”, 70, cc. 3r–144r

Table 4 Value insured, by frequency and temporal extension of underwriters, in Florence (1524–1526)

		Value insured (as a % of the total) by subscription frequency (on monthly basis)				
		<0.25 (%)	*≥ 0.25 < 0.50 (%)*	*≥ 0.5 < 1.00 (%)*	*≥1.00 (%)*	*Total*
Value insured (as a % of the total) by length of business in the interval 1524–1526 (in months)	≤9	5.9	1.0	0.6	–	7.5
	> 9 ≤ 18	4.9	6.9	2.2	1.2	15.2
	> 18 ≤ 24	0.6	4.4	13.8	2.8	21.6
	>27	–	2.2	11.3	42.2	55.7
	Total	11.4	14.5	27.9	46.2	100.0

Source Pisa, Archive of the *Scuola Normale Superiore*, *Salviati I*, “Libri di Commercio”, 70, cc. 3r–144r

Table 5 Main "leading insurers" in Florence (1524–1526)

Underwriter	*No. of subscribed shares (as "leading insurer")*	*No. of subscribed shares (total)*	*Shares subscribed as "leading insurer" (as a % of the total subscribed shares)*
Salviati, Averardo & c	145	230	63.0
Bartolini, Gherardo e Lanfredini, Bartolomeo & c	48	131	36.6
Bartolini, Gherardo (individually)	8	23	34.8
del Rosso, Agnolo di Pierozzo	63	209	30.1
Capponi, Ludovico	8	29	27.6
Dini, Agostino di Francesco & c	36	143	25.2
Venturi, Neri	34	137	24.8
Segni, Mariotto di Piero	8	33	24.2
del Nero, Marco di Simone & c	14	64	21.9
Antinori, Alessandro (individually)	13	76	17.1
Saliti, Zanobi (individually)	13	77	16.9
Ginori, Leonardo e Pitti, Giovanbattista & c	8	48	16.7
del Palagio, Mariano (individually)	11	71	15.5
del Benino, Stefano di Filippo & c	6	39	15.4
da Filicaia, Leonardo	7	46	15.2
Gondi, Bernardo e Antonio & c	12	81	14.8
Total ("leading insurers")	**434**	**1437**	**30.2**
Other underwriters	399	6839	5.8
Total	**833**	**8276**	**10.1**

Source Pisa, Archive of the *Scuola Normale Superiore*, *Salviati I*, "Libri di Commercio", 70, cc. 3r–144r

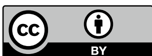
Table 6 Distribution of underwriters in the role of "leading insurer" in Florence (1524–1526)

Class of "leading insurers" (in centiles)	*% of contracts underwritten as "leading insurer"*
Top 1%	31.3
Top 5%	55.3
Top 10%	71.5
Top 20%	88.7
Top 40%	99.6

Source Pisa, Archive of the *Scuola Normale Superiore*, *Salviati I*, "Libri di Commercio", 70, cc. 3r–144r

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.



Origins and Variants of Mutual Protection

General Average in Byzantium

Daphne Penna

The present essay focuses on the Byzantine sources on General Average and is a contribution on the evolution of the laws of General Average (GA). The GA principle has its roots in very ancient times. In Justinian's *Digest* (sixth century AD) we find fragments of Roman jurists discussing Average rules from the so-called Rhodian law of jettison (*lex Rhodia de iactu*). There is also a later text, a Byzantine collection of maritime law provisions, compiled in the seventh or eighth century, the *Νόμος Ροδίων Ναυτικός*, which is known under the name *Rhodian Sea-Law*, and includes GA rules. The aim of this paper is to examine the GA rules in the *Digest* and in the Byzantine collection *Rhodian Sea-Law* and their transmission in the *Basilica*, which were promulgated around 900 AD and are considered the last important extensive Byzantine legislation. Short references will also be made to the development of GA rules after the *Basilica*.

D. Penna (✉)
University of Groningen, Groningen, The Netherlands
e-mail: d.penna@rug.nl

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_4

General Average, the Rhodian Law of Jettison and the Roman Jurists: The *Digest* (6th c. AD)

> Before very long, a wind of hurricane force, called the Northeaster, swept down from the island. The ship was caught by the storm and could not head into the wind; so we gave way to it and were driven along [...]. We took such a violent battering from the storm that the next day they began to throw the cargo overboard. On the third day, they threw the ship's tackle overboard with their own hands. When neither sun nor stars appeared for many days and the storm continued raging, we finally gave up all hope of being saved.[1]

This extract is an account by the evangelist Luke of the adventurous journey of Paul the Apostle to Rome around 60 AD, when he was taken as a prisoner to the capital to appeal to the emperor, Nero, as a Roman citizen. As can be seen from the passage, the author vividly describes the desperate actions of the seafarers as they tried to save the ship and themselves, when the ship was hit by a storm. St Paul's shipwreck is just one, famous, example of a common situation which has occurred for centuries, if not millennia: the need to jettison things from ships when there is a risk of shipwreck. If material is jettisoned, how is the liability to be fairly apportioned among the owners of the material? The rules on how to do this constitute the laws of GA.

The laws of GA have their roots in very ancient times. Justinian's legislation, promulgated in the sixth century AD, consists of the *Codex* (imperial laws), the *Digest* (an anthology of extracts from the writings of the best Roman jurists, most of whom had lived in the second and third century AD), the *Institutes* (an introductory textbook, which received the status of a law), and the *Novels* (imperial laws after the *Codex* was promulgated).

[1] *Acts of the Apostles*, 27:14/14–19 New International Version. This is a well-known account of St. Paul's shipwreck and J.-J. Aubert begins his article with the same passage; see his 'Dealing with the Abyss: The Nature and Purpose of the Rhodian Sea-law on Jettison (*Lex Rhodia De Iactu*, D. 14, 2)', in J. W. Cairns and P. J. du Plessis eds., *Beyond Dogmatics: Law and Society in the Roman World* (Edinburgh 2007), 157–172.

The second title of the fourteenth book of the *Digest* is entitled "*De lege Rhodia de iactu*" ("Concerning the Rhodian Sea-Law of Jettison"),[2] in which Roman jurists discuss issues of GA and contribution. This *Digest* title consists of ten fragments from the writings of Paul,[3] Papinian,[4] Callistratus,[5] Hermogenian,[6] Julian,[7] Volusius Maecianus[8] and Labeo.[9] The name *Rhodian Sea-Law* is mentioned three times: once in the title itself as "*Lex Rhodia de iactu*" and in two fragments.

The first short fragment, which also forms the beginning of this title, is from the *Sententiae* of Pseudo-Paul[10] and reads as follows: "the Rhodian law provides that if cargo has been jettisoned in order to lighten a ship, the sacrifice for the common good must be made by common contribution".[11]

The second fragment is from a work by Volusius Maecianus. It is given in Greek, which is interesting as nearly all the *Digest* fragments are in Latin. After the name of the author, we find "From the Rhodian Law" (*ex lege Rodia*), then the Greek text:

[2] On why this particular title was placed in this part of the *Digest*, see Aubert, 'Dealing with the Abyss'. For a general historical overview of GA regulations from the *lex Rhodia de iactu* up to the *Ordonnance de la Marine of 1681*, see J. Kruit, 'General Average—General Principle Plus Varying Practical Application Equals Uniformity?', *The Journal of International Maritime Law*, 21 (2015): 190–202, 192–200.

[3] There is a fragment from the *Sententiae* of the so-called Pseudo-Paul in D. 14,2,1. On a basic explanation of the *Sententiae* of Pseudo-Paul, see the entry by Simon Corcoran in R. S. Bagnall et al. eds., *The Encyclopedia of Ancient History* (Oxford 2012), 6152, with bibliographical references, mainly by Liebs, for example, D. Liebs, *Römische Jurisprudenz in Africa mit Studien zu den pseudopaulinischen Sentenzen* (Berlin 1993) and 2nd rev. ed. (= Freiburger Rechtsgeschichtliche Abhandlungen Neue Folge, vol. 44, Berlin 2005). Two *Digest* fragments derive from works of the real Paul, in D. 14,2,2 and D. 14,2,7.

[4] D. 14,2,3.

[5] D. 14,2,4.

[6] D. 14,2,5.

[7] D. 14,2,6 and D. 14,2,8.

[8] D. 14,2,9.

[9] D. 14,2,10.

[10] On Pseudo-Paul's *Sententiae* see footnote no. 3 above.

[11] D. 14,2,1: *Lege Rodia cavetur, ut, se levandae navis gratia iactus mercium factus est, omnium contributione sarciatur quod pro omnibus datum est*.

> Petition of Eudaemon of Nicomedia to the Emperor Antoninus: "Antoninus, King and Lord, we are shipwrecked in Icaria and robbed by the people of the Cyclades". Antoninus replied to Eudaemon: "I am master of the world, but the law of the sea must be judged by the sea law of the Rhodians where our law does not conflict with it. Augustus, now deified, decided likewise".[12]

According to this fragment, Emperor Antoninus Pius (86–161 AD) acknowledged the importance of the so-called sea law of the Rhodians.[13] The Roman jurists' references to a "sea law of the Rhodians" are an indication that there must have been a legal text dealing with maritime issues which was somehow related to Rhodes. Moreover, the fact that one of the Roman fragments referring to this law is actually included in Greek within the *Digest* could be another indication that this law was indeed of Greek origin. We know that in ancient times Rhodes was an important island for its trade and naval activities.[14] The fact that one of the seven wonders of the ancient world, the Colossus of Rhodes, a giant statue of the sun god Helios was situated, according to the sources, in the harbour of Rhodes cannot be a coincidence. In his *Geografica*, Strabo exalted the role of Rhodes in maritime affairs:

> The city of the Rhodians lies on the eastern promontory of Rhodes; and it is so far superior to all others in harbours and roads and walls and improvements in general that I am unable to speak of any other city as

[12] D. 14,2,9: "Ἀξίωσις Εὐδαίμονος Νικομηδέως πρὸς Ἀντωνῖνον βασιλέα· Κύριε βασιλεῦ Ἀντωνῖνε, ναυφράγιον ποιήσαντες ἐν τῇ Ἰταλίᾳ (about the translation 'Icaria', see the comment of the translators who base their translation on a correction) διηρπάγημεν ὑπὸ τῶν δημοσίων τῶν τὰς Κυκλάδας νήσους οἰκούντων. Ἀντωνίνος εἶπεν Εὐδαίμονι· ἐγὼ μὲν τοῦ κόσμου κύριος, ὁ δὲ νόμος τῆς θαλάσσης. τῷ νόμῳ τῶν Ῥοδίων κρινέσθω τῷ ναυτικῷ, ἐν οἷς μήτις τῶν ἡμετέρων αὐτῷ νόμος ἐναντιοῦται. τοῦτο δὲ αὐτὸ καὶ ὁ θειότατος Αὔγουστος ἔκρινεν." The translations of all *Digest* fragments in this paper are from A. Watson ed., *The Digest of Justinian*, (transl. Mommsen, ed. maior), 4 vols (Philadelphia 1985).

[13] For information on Volusius Maecianus and this fragment, see, for example, D. Liebs, 'Jurisprudenz' in K. Sallmann ed., *Handbuch der Lateinischen Literatur der Antike*, 4 vols (München 1997), IV: 130–31; and J. Rougé, ''Ο θειότατος Αὔγουστος', *Revue de Philologie de Littérature et d'Histoire anciennes*, 43 (1969): 83–92.

[14] On the prehistory of Rhodian maritime custom through archeological research, see C. Doumas, 'Νόμος Ροδίων Ναυτικός: The Contribution of the Aegean Islands to International Maritime Affairs', in C. Papageorgiadou-Banis and A. Giannikouri eds., *Sailing in the Aegean, Readings on the Economy and Trade routes* (Athens 2008), 77–88.

> equal to it, or even as almost equal to it, much less superior to it. It is remarkable also for its good order, and for its careful attention to the administration of affairs of state in general; and in particular to that of naval affairs, whereby it held the mastery of the sea for a long time and overthrew the business of piracy, and became a friend to the Romans and to all kings who favoured both the Romans and the Greeks.[15]

Cicero too acknowledged the skill and reputation of Rhodian seamen.[16] Despite several testimonies confirming the leading role of Rhodes in maritime issues, we do not have any trace of the ancient so-called "Rhodian Law". All we have of the provisions of the ancient Rhodian Law regarding GA are the references to that law in the *Digest*.

How, then, is GA regulated in the *Digest*? After the first short general fragment from the *Sententiae* of Pseudo-Paul, a second lengthy fragment follows by the real Paul, from his work on the *Edict*, where detailed information is given on when and how GA rules will be applied.[17] The general principle which appears from this fragment is that, if a ship faces difficulty when travelling and cargo is thrown overboard in order to save the ship, and the ship is indeed saved, the owner whose cargo was overthrown has a right to compensation.

Details of the rules regarding jettison are not found in the *Digest*; for example, it is not clear whose decision it is to throw the goods, and which goods are to be chosen.[18] In one fragment it is mentioned "Those who jettisoned goods for the purpose of lightening the ship do not intend to abandon them…"[19] On a strict, grammatical interpretation it seems that

[15] Strabo, *Geography* 14,2,5 http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0197%3Abook%3D14%3Achapter%3D2%3Asection%3D5 (last accessed 6 October 2021); "Ἡ δὲ τῶν Ῥοδίων πόλις κεῖται μὲν ἐπὶ τοῦ ἑωθινοῦ ἀκρωτηρίου, λιμέσι δὲ καὶ ὁδοῖς καὶ τείχεσι καὶ τῇ ἄλλῃ κατασκευῇ τοσοῦτον διαφέρει τῶν ἄλλων ὥστ᾽ οὐκ ἔχομεν εἰπεῖν ἑτέραν, ἀλλ᾽ οὐδὲ πάρισον, μή τί γε κρείττω ταύτης τῆς πόλεως. θαυμαστὴ δὲ καὶ ἡ εὐνομία καὶ ἡ ἐπιμέλεια πρός τε τὴν ἄλλην πολιτείαν καὶ τὴν περὶ τὰ ναυτικά, ἀφ᾽ ἧς ἐθαλαττοκράτησε πολὺν χρόνον καὶ τὰ λῃστήρια καθεῖλε καὶ Ῥωμαίοις ἐγένετο φίλη καὶ τῶν βασιλέων τοῖς φιλορωμαίοις τε καὶ φιλέλλησιν."

[16] Cicero, *Pro lege Manilia*, XVIII.

[17] D. 14,2,2.

[18] See also E. Mataix Ferrándiz, 'Will the Circle Be Unbroken? Continuity and Change in the *Lex Rhodia*'s Jettison Principles in Roman and Medieval Mediterranean Rulings', *Al-Masāq, Journal of the Medieval Mediterranean* 29/1 (2017): 41–59, here 47.

[19] D. 14,2,8: "Qui levandae navis gratia res aliquas proiciunt, non hanc mentem habent, ut eas pro derelicto habeant…". In Watson's translation it is "The person who jettisons

it is the owner who can choose whether to jettison the goods or not, but there are other fragments that indicate that the merchant did not jettison the goods, implying that it was not his choice.[20] Moreover, in another book of the *Digest,* we read of a case in which a person is not liable when he throws overboard another man's goods in order to save his own.[21]

What is, however, firmly regulated in the *Digest* book 14,2 entitled "*De lege Rhodia de iactu*", and is by far the most important contribution of this part of the *Digest*, is the legal solution used to pay the compensation. When trying to distribute the loss proportionally among all parties, a legal problem arises: the person who has suffered damage has no legal relationship with the other parties on board. In other words, there is, prima facie, no basis in law for him to receive compensation from the other passengers for his sacrifice for the common good. The Rhodian law of jettison provides a fair solution to this problem by means of an elegant legal construction. The key element of this construction is the contract of carriage. As Paul explains, the owner who has lost his cargo can sue the master on his contract of carriage (*locatio conductio operis*) with the master.[22] The master can then sue, on their contracts of carriage, the passengers whose goods have been saved. Thus, the loss is distributed proportionally.

It is stressed that contribution is not due "if the ship suffers damage or loses any of its gear and the cargo is unharmed".[23] The reason for this is that property related to the ship is different from the property of the cargo-owners who have paid freight for it. However, if the damage to the ship is caused by the decision of the cargo-owners, or as a reaction to some danger, compensation is distributed. A concrete example of this situation is given by Papinian, who mentions that "contribution is

goods for the purpose…" but I prefer the plural form that is also evident in the Latin fragment (qui…. proiciunt….habent).

[20] See D. 14,2,2, pr. and D. 14,2,4,1 and D. 14,2,5.

[21] D. 19,5,14, pr: "In order to save his own cargo a man hurled another's cargo into the sea; he is not liable in any action."

[22] D. 14,2,2, pr. The contract of hire and lease (*locatio conductio*) had a broader application in Roman law and covered also, for example, the contract of carriage. See, for example R. Zimmermann, *The Law of Obligations. Roman Foundations of the Civilian Tradition* (Oxford 1996 [1990]), 338–412, 338–340. On this legal construction see also the contribution of Andrea Addobbati in this volume.

[23] D. 14,2,2,1.

due if the mast or other piece of ship's equipment is cast off to allay a common danger".[24] In other words, since there was a common danger (*communis periculi causa*), everyone who benefited from the jettison must make a contribution. It is also mentioned that everyone should contribute if the ship is ransomed by pirates but, if property is stolen by robbers, the owners have to bear the loss individually.[25]

If the jettisoned good comes on the surface, contribution is not due and, if someone has already paid contribution, he can ask it back from the master. The legal basis for this is, once more, the contract of carriage.[26] The reason for this is that, although they were 'sacrificed' for the common good,[27] jettisoned goods are not considered abandoned and remain the property of their owners.

Roman jurists also discuss issues concerning the estimation of the contribution; for example, which goods are valued and how. In principle, the value of all goods is taken into consideration except those goods destined for consumption, for example, food.[28] Some Roman jurists suggest that when a ship is ransomed by pirates everyone is liable to pay contribution because this is a common danger. However, if thieves steal the property of some person on the ship then this person has to bear the loss on his own. When estimating the total amount of the loss, the market value of the property is decisive.[29] Further on, it is mentioned that:

> the usual amount of contribution depends on the value of the property saved and lost respectively. It is immaterial if the property lost could have been sold at a premium, since what is to be made good is loss suffered and not gain foregone. But the valuation of the property from which contribution is due must be in terms of what it would fetch, not what it cost.[30]

[24] *Cum arbor aut aliud navis instrumentum removendi communis periculi causa deiectum est, contributio debetur*, D. 14,2,3. See also D. 14,2,5,1.

[25] D. 14,2,2,3.

[26] D. 14,2,2,7.

[27] See also D. 14,2,8.

[28] D. 14,2,2,2.

[29] D. 14,2,2,2.

[30] *Portio autem pro aestimatione rerum quae salvae sunt et earum quae amissae sunt praestari solet, nec ad rem pertinet, si hae quae amissae sunt pluris venire poterunt, quoniam*

In other words, the goods that are saved are to be valued according to the price they would fetch when sold.

Slaves do not form part of the assets to be valued if they have been drowned, or have died on board because of a sickness, or have thrown themselves into the sea. In another fragment it is mentioned that, when estimating the value of the saved goods in order to calculate the contribution, one should also take into consideration whether the saved goods have suffered damage. In that case, the contribution should be valued on the basis of what the goods are worth taking into account the damage. The following example is given: "thus, for example, if two people had goods worth twenty and owing to water damage the goods of one of them are reduced in value to ten, the one whose goods are undamaged should contribute for twenty and the other for ten only".[31] The cause of damage is in this case decisive in order to apply this rule and pay less contribution, meaning that the damage has to occur because of the jettison.

In one fragment, reference is made to the issue of potential fault of the master and crew, and the remedies available based on the contract of carriage.[32] If a ship is hired for the delivery of goods and the master transfers the goods in another less good vessel knowing that the person who has hired the ship would disapprove, and eventually the ship sinks with the cargo, the person hiring the ship is allowed to bring an action against the master based on his contract of carriage with him. The same applies when in the contract is agreed that the master must pay a fixed penalty if he fails to deliver the goods at the agreed destination by a certain date. In both cases the master or the crew have to be at fault, due to intention or negligence.[33] Finally, other maritime issues including maritime loans and

detrimenti, non lucri fit praestatio. sed in his rebus, quarum nomine conferendum est, aestimatio debet haberi non quanti emptae sint, sed quanti venire possunt, D. 14,2,2,4.

[31] D. 14,2,4,2.

[32] D. 14,2,10,1.

[33] For a selective bibliography see L. Paparriga-Artemiades, *Στοιχεία ελληνικών επιδράσεων στα λατινικά κείμενα του Corpus Juris Civilis. Αποσπάσματα από την αρχαιοελληνική γραμματεία* [Elements of Greek Influences in the Latin Texts of the Corpus Iuris Civilis. Fragments of Ancient Greek Literature] (Athens 2006), 120–21.

shipwrecks are also regulated in Justinian's *Codex*. As they do not form strictly part of the laws of GA they are not examined here.[34]

General Average in the Byzantine Collection Entitled "The Rhodian Sea-Law" (7–8th C. AD)

The name "Rhodian Sea Law" is also related to a later Byzantine collection. In the seventh or eighth century AD a collection of maritime law was compiled and was entitled *The Sea-Law of the Rhodians* (*Νόμος Ῥοδίων Ναυτικός*). However, it is generally, and somewhat confusingly, known by the same name, *The Rhodian Sea-Law*, as the *Lex Rhodia de iactu* of the *Digest*.[35] Hence, to avoid any misunderstanding, I clarify that the name "Rhodian (Sea) Law" can refer to the following three texts: (1) the ancient *Rhodian (Sea)-Law* of which we have no direct fragment; (2) references of Roman jurists to the ancient *Rhodian (Sea)-Law* and particularly the GA provisions of it and (3) the Byzantine collection *The Sea-Law of the Rhodians* (the *Nomos Rhodion Nautikos*), which is known in literature as *The Rhodian Sea-Law*.

The Byzantine collection *The Rhodian Sea-Law* has furthermore a complicated manuscript tradition which creates many problems and has led to many theories. The critical edition which is nowadays in use consists of a preface and two parts, the *pars secunda* and the *pars tertia*, mentioned as part II and part III respectively in this edition. The preface is furthermore preserved in two versions and it has been suggested that it was added in a later period to the text.

[34] See C. 4,33 (Maritime Loans), C. 11,6 (Shipwrecks). The eleventh book of the *Codex* has more titles that deal with ships and ship-owners.

[35] For a critical edition of this Byzantine collection, with an English translation, see W. Ashburner, *The Rhodian Sea-Law* (Oxford 1909) ("Ashburner"); see also D. Letsios, *Νόμος Ῥοδίων Ναυτικός. Das Seegesetz der Rhodier* (Rhodes 1996) and G. Rodolakis, *Από το Νόμο Ροδίων στο 53ο Βιβλίο των Βασιλικῶν. Συμβολή στη μελέτη του Βυζαντινού Ναυτικού Δικαίου* [From the "Law of the Rhodians" to the 53rd Book of "BASILIKA". Contribution to the Study of Byzantine Maritime Law] (Athens 2007) ("Rodolakis"); this provides a new critical edition of the *prooimion* of *The Rhodian Sea-Law* (115–117) and a new critical edition of the 53rd book of the *Basilica* (212–260) which includes *The Rhodian Sea-Law* (see section "General Average in the Basilica (ca. 900 AD)"). There is also a new English translation of *The Rhodian Sea-Law* in *The Laws of the Isaurian Era. The Ecloga and its Appendices*, translated with introduction and commentary by M. Humphreys (Liverpool 2017), 113–128.

How is GA regulated in this collection? Is GA regulated in a different way from that found in the *Digest* fragments? First, rules on GA and jettison are not concentrated in one specific part of *The Rhodian Sea-Law* but are scattered in several chapters of part III and are closely related to contribution, piracy, contracts of partnership and shipwreck issues. It is therefore sometimes difficult to distinguish the rules on GA from other rules, and difficult to systematize them. The first reference to GA in *The Rhodian Sea-Law* is made in Chapter 9 of part III:

> If the master[36] is deliberating about jettison he must inquire of the passengers who have goods on board, and they shall vote on what should be done. The goods shall be brought into the contribution; bedding, clothes and utensils shall all be valued, and if there is jettison, [the share of] the master[37] and [each of] the passengers [that is jettisoned] shall not exceed the value of one pound, [the share of] a steersman and a commander of the bow no more than half a pound, [and the share of] a sailor no more than three *grammata*.[38] Boys and anyone else on board who are not being carried for sale shall be valued at two *minas*.[39] Similarly, if goods have been taken away be enemies, robbers or by those on state service, these shall be brought into calculation, together with the belongings of the sailors, and shall come into contribution on the same principle. If there is an agreement to share profit in common, then after everything on board the ship and the ship itself have been brought to contribution, then each man shall bear the loss that has occurred in proportion to his share of the profit.[40]

[36] I use the translation by Humphreys; he uses "captain" but this has been changed into "master" for reasons of consistency within this volume; http://humanities.exeter.ac.uk/history/research/centres/maritime/research/modernity/roles/.

[37] See above footnote no. 36.

[38] See the observation by Humphreys that three *grammata* which correspond to 1/8 of an ounce (or 1/96 of a pound, or nine *miliaresia*) is a very small amount and this could indicate a scribal error. See Humphreys, 120, footnote 18, with references to Ashburner, *The Rhodian Sea-Law*, 88–90 and E. Schilbach, *Byzantinische Metrologie* (Munich 1970), 184.

[39] On the word *mina* and its use to describe the *litra* or pound, see Schilbach, *Byzantinische Metrologie*, 171–176 Humphreys refers also to Schilbach.

[40] Translation by Humphreys, 119–120, see also Ashburner, *The Rhodian Sea-Law*, 87–91 his commentary to this translation with useful explanatory notes and especially his lengthy comment on the words *litra* and *grammata*.

This fragment confirms the rule that we have seen in the *Digest*, namely when goods are jettisoned contribution should be made by all passengers who have goods on board. However, the above fragment differs from the relevant *Digest* rules on jettison and GA in at least two points.

First, the procedure described in this collection seems to be more complicated, since consultation is needed on which goods will be jettisoned, although it is doubtful whether such elaborate rules about consultation and voting procedures could have been observed in the reality of life-threatening storms at sea.[41] Secondly, in the *Digest*, as we have seen, the key element in the legal construction used in order to resolve the problem of compensation is the contract of carriage. In this fragment of *The Rhodian Sea-Law* the proportional distribution of the contribution of the passengers is based on some kind of agreement that has been made beforehand, "the agreement for sharing in gain". This agreement must be related to partnership agreements, something that is also regulated in *The Rhodian Sea-Law*.[42]

In Byzantine law, as in modern law, a "partnership" was an agreement between two or more persons, the aim of which was to co-operate with a view to make a profit. A special type of partnership was developed in Byzantium for financing maritime trade: the *chreokoinonia*, which can be compared to the Italian *commenda*.[43] In the *chreokoinonia*, one

[41] For a comparison with Islamic maritime law, as far as the consultation needed for the act of a jettison and the different scenarios sketched by Muslim jurists, see the contribution of Hassan Khalilieh in this volume.

[42] Ashburner (*The Rhodian Sea-Law*, 91) mentions in his commentary that "As to partnerships between ship and merchants…"; Humphreys in his footnote refers here the rules of partnership that are prescribed in a contemporary Byzantine law, the *Ecloga*, see Humphreys, 60 and 120, footnote no. 20 referring to *Ecloga*, 10.4.

[43] The word *chreokoinonia* derives from the word *chreos* (χρέος) meaning debt and the word *koinonia* (κοινωνία), which means partnership (*societas*). About the *chreokoinonia*, see O. Maridaki-Karatza, 'Legal Aspects of the Financing of Trade', in A. Laiou ed., *The Economic History of Byzantium: From the Seventh through the Fifteenth Century*, 3 vols, (Washington 2002), 3: 1105–1120. Eleutheria Papagianni has examined Byzantine maritime contracts in more of her writings, see in particular, E. Papagianni, 'Seehandelrechtliche Streitigkeiten vor dem Patriarchatgericht', in C. Gastgeber, E. Mitsiou and J. Preiser-Kapeller eds., *The Register of the Patriarchate of Constantinople: An essential source for the History and Church of Late Byzantium* (Vienna 2013), 199–205; E. Papagianni, 'Formes d'enterprises maritimes des Constantinopolitains à la fin du XIVe siècle', in E. Chrysos, D. Letsios, H. A. Richter and R. Stupperich eds., *Griechenland und das Meer. Beiträge eines Symposiums in Frankfurt in Dezember 1996* (Mannheim 1999), 179–184; E. Papagianni, 'Εμπορικές επιχειρήσεις Κωνσταντινουπολιτών κατά τα έτη 1399–1401. Ο

partner or partners provided the capital, the other partner or partners the work (he/they undertook the journey). The *chreokoinonia* became popular because it allowed a supplier of capital to share in the profit if the voyage went well, rather than being restricted to receiving a fixed amount which stayed the same irrespective of the success or failure of the venture. It was also generally more flexible because the parties could regulate all sorts of matters between so long as it was lawful to do so.

The Greek word that is used in Chapter 9 of part III of *The Rhodian Sea-Law* cited above is "*kerdokoinonia*",[44] literally a "partnership in gain". As Olga Maridaki-Karatza notes: "The beginnings of the maritime partnership are regarded as being the profit-sharing system (*kerdokoinonia*) referred to in the index to *The Rhodian Sea Law* or the system of debt-sharing (*chreokoinonia*) defined in the relevant provision of the same collection".[45] The word *kerdokoinonia* is indeed mentioned in the Index, that is the table of chapters of part III of *The Rhodian Sea-Law*,[46] and also in the above fragment of Chapter 9 of the III part cited above.[47]

όρος «συντροφία» στα Acta Patriarchatus Constantinopolitani' (in Greek) ['Commercial enterprises of Constantinopolitans during the years 1399–1401. The term *syntrofia* in the register of the Patriarchate of Constantinople'], in *Gedächnisschrift für Alkis Argyriadis* (Athens 1995), 735–745. See also A. Laiou-Thomadakis, 'The Byzantine Economy in the Mediterranean Trade System, 13th–15th Centuries', *Dumbarton Oak Papers*, 34/35 (1980/1), 177–222 (repr. in A. E. Laiou, *Gender, Society and Economic Life in Byzantium* (London 1992), art. vii. On the *commenda*, see J. H. Pryor, 'The Origins of the Commenda Contract', *Speculum*, 52/1 (1977), 5–37; see also the contribution of Ron Harris in this volume; for a comparison of the *commenda* with the *chreokoinonia*, 23–26. For a comparison between the Byzantine *chreokoinonia* and the Islamic Qirāḍ/Muḍāraba (*Commenda*), see H. S. Khalilieh, *Admiralty and Maritime Laws in the Mediterranean Sea (ca. 800–1050), The Kitāb Akriyat al-Sufun vis-à-vis the Nomos Rhodion Nautikos* (Leiden 2006), 224–247, especially 231–247.

[44] In the text: "σύμφωνον κερδοκοινωνίας".

[45] O. Maridaki-Karatza, 'Legal Aspects of the Financing of Trade', in Laiou ed., *The Economic History of Byzantium*, 3: 1105–1120; here 1117.

[46] *The Rhodian Sea-Law*, Part III, Index, 17: "Concerning loans of gold and silver made on the footing of share in profits", see Ashburner, *The Rhodian Sea-Law*, 6.

[47] Although in the table of chapters (title 17th) it is mentioned as *kerdokoinonia*, in the chapter itself (chapter no. 17) it is mentioned as χρείᾳ κοινωνίας. Ashburner mentions that there is traditionally a division into two words and later on it is given in one word as χρεοκοινωνία. He also notices that in both cases there is a variety among the manuscripts and he also points out that in the table of chapters the word used is κερδοκοινωνία, see Ashburner, *The Rhodian Sea-Law*, 97.

Chapter 10 of part III of *The Rhodian Sea-Law* states that if the loss or shipwreck occurs because of the negligence of the master or his crew, they will have to compensate the merchant for his damages. If, on the other hand, the ship and cargo are lost as a result of the merchant's negligence, he bears the liability for compensation arising out of the loss caused by the shipwreck. Finally, if the shipwreck or loss occurs without the fault of the master, the crew or the merchant, then what is saved of the ship and the cargo is to come into contribution.[48] There are more rules that are related to contribution and jettison and make a distinction on whether, in every discussed case, it was the fault of the master or that of the merchant for the jettison in order to estimate the contribution in every case. Characteristic is Chapter 26 of the part III of *The Rhodian Sea-Law*:

> If any of the sailors or the officers sleep off the ship and it happens that the ship is lost, at night or day, all the losses shall be borne by the sailors and officers who slept off the ship, while those who remained on board shall not be liable. Those who are negligent must make good to the owner of the ship the damage caused by their negligence.[49]

Here, a distinction is made between the sailors and masters who slept on shore, and are thus liable if the ship is wrecked, and the ones who were on board and presumably—as they were on board—did their best for saving the ship and are thus, not liable. If it is the merchant's fault, he will have to pay for the damage done if the ship is lost. Such an example is given in Chapter 28 of the part III of *The Rhodian Sea-Law*:

> If a ship is hindered while loading by the merchant or partner and the time fixed for loading passes, and it happens the ship is lost due to piracy, fire or shipwreck, the one who caused the delay shall bear the loss.[50]

Based on this passage, we can conclude how important time limits were in loading a ship. Obviously when the ship was at the phase of being loaded, it was more vulnerable to attacks. It was thus important to limit this time and to respect it. If a merchant or partner did not respect the time fixed

[48] *The Rhodian Sea-Law*, Part III, Chapter 10.

[49] Translation by Humphreys, 124.

[50] Ibid.

for loading, and by exceeding this time the ship was wrecked, then this merchant or partner had to pay for the damage, as he had caused the hindrance resulting in the ship being lost. Not only the time fixed for loading should not be exceeded by the merchant, but also the place set for the loading of the cargo should not change, as it is described in the following passage, which is Chapter 29 of the part III of *The Rhodian Sea-Law*:

> If the merchant does not provide the cargo at the place agreed, and the agreed time passes, and it happens that the ship is lost to piracy, fire or shipwreck, then the merchant shall bear all the losses of the ship. If the days set have not passed and one of these said things happens, then they shall all come into contribution.[51]

In short, the point of the aforementioned provisions was to confirm that everything that had been agreed in the contract would be observed. One could consider these provisions superfluous because once a contract has been made, and provisions are included about the time limits and places of loading cargo, these provisions have to be observed anyway; in other words, if there is a breach of contract by one of the parties, that party is liable. Was is then necessary to include such provisions in *The Rhodian Sea-Law*? The *ratio* of these provisions was certainly to confirm what had been agreed in the contract. Moreover, the two examples mentioned in *The Rhodian Sea-Law* (observing the fixed time limits, and the place of loading cargo) were considered important and perhaps there were many cases in which, although these issues had been included and had been agreed upon in a contract, merchants or partners did not observe them in real practice and that is why it was considered necessary to include such provisions in *The Rhodian Sea-Law* with specific examples.

Chapters 30 and 31 of the part III of *The Rhodian Sea-Law* deal with the estimation of the contribution in cases in which the whole ship is loaded by a merchant, and the cargo is gold or silver, and the ship faces a maritime danger. We read in Chapter 30 of the part III of *The Rhodian Sea-Law*:

> If the merchant, having loaded the ship, has gold with him and it happens that the ship suffers one of the dangers of the sea and the cargo is lost and

[51] Ibid.

> the ship destroyed, then the salvage from the ship and the cargo shall come into the contribution, but the merchant shall take his gold with him. He shall pay a tenth [of the gold] if he survived without holding fast to the tackle of the ship – he shall also pay the half-freight charge in accordance with the contract – but if he survived by holding on to the tackle of the ship, he shall pay one fifth [of the gold].[52]

What is crucial about the estimation of the contribution is whether the merchant actually used parts of the ship to be saved or not. By reading passages like this, one really has to ask oneself how the proof procedure would have been carried out in practice. In other words, it would be difficult to prove whether the merchant had actually held to the tackle of the ship in order to be saved. What happened, for example, if the merchant had held to it for a short time and then abandoned it? Who could prove this in a situation of a catastrophic storm, for example? In Chapter 31 of the part III of *The Rhodian Sea-Law* we read:

> If the merchant has loaded the ship, and something happens to the ship, all the salvage shall come into the contribution from both sides. But if the silver is saved, he [the merchant] shall pay a fifth of it. The master[53] and the crew shall help in the salvage.[54]

The master and the crew are explicitly asked to help by the salvaging of the goods. According to Ashburner, "this is not a mere exhortation. Probably remissness on the part of the master or sailor would disentitle him to his percentage".[55] In other words, if the master and crew do not help in salvaging the goods, presumably they will not be entitled to receive any percentage of what has been saved.[56]

[52] Ibid. Here Humphreys clarifies that he has taken into consideration for his translation the corrections by I. Spatharakis, 'The Text of Chapter 30 of the Lex Rhodia Nautica', *Hellenica* 26 (1973): 207–215.

[53] See above footnote no. 36.

[54] Translation by Humphreys, 124.

[55] Ashburner, *The Rhodian Sea-Law*, cclxiii.

[56] There are more chapters that deal directly or indirectly with contribution and jettison issues. See Chapter 22, which deals with the cargo-space of the ship and the agreements that have been made with the merchant in hiring it, Chapter 32 about a ship hired or sailing in partnership and wrecked on its way through the strait, Chapter 33 concerning

As in the *Digest*, special reference is made to the jettison of a ship's mast. We read in the Chapter 35 of part III of *The Rhodian Sea-Law*:

> If a ship jettisons its mast, whether it breaks on its own or is cut down, then all the crew and the merchants and the cargo and the ship, whatever is saved, shall come into contribution.[57]

In the *Digest,* it was clearly mentioned that contribution followed only if the mast was sacrificed because of a common danger. In the above abstract of *The Rhodian Sea-Law,* it is not clarified why the mast has to be jettisoned. No reference is made to a danger that has to be confronted by jettisoning the mast. It seems that the ship's mast in this case has to be thrown overboard because it is in the way; it broke or it was cut down (yet we do not know why it was cut down), it forms an obstacle and has to be jettisoned. In any case, it is mentioned that contribution will follow if the mast is jettisoned. Further on, in Chapter 43 of part III of *The Rhodian Sea-Law* common danger is taken into account, when it is mentioned that if the mast and other parts of the ship break down because of the bad weather conditions, contribution should be made:

> If a ship is caught in a storm and jettison of goods happens and its sailyards, mast, tillers, anchors and rudders break, then all these shall come into the contribution along with the value of the ship and the salvaged cargo.[58]

Moreover, in the Chapter 38 of part III of *The Rhodian Sea-Law* reference is made to jettison because of a danger that the ship faces:

> If a ship carrying grain is caught in a storm, the master[59] shall provide skins and the crew shall bail out the bilge water. If they are negligent and the cargo has become wet from the bilge water, the crew shall make good the loss. But if the cargo is damaged by the storm, then the master[60] and the crew together with the merchant shall bear the loss, and the master

a ship which is wrecked after unloading the cargo (or part of it), Chapter 35 about the jettison of the mast of a ship and Chapters 36–44.

[57] Translation by Humphreys, 125.

[58] Translation by Humphreys, 127.

[59] See above footnote no. 36.

[60] Ibid.

> together with the ship and the crew shall receive six hundreds of what is salvaged. If jettison into the sea occurs, the merchant shall be the first to throw and then the crew shall set to work. After this none of the crew shall steal. If anyone does so, the thief shall pay back double and lose all of his gain [from the salvage].[61]

In the above fragment, the ship faces danger because of a strong wind. If cargo is destructed because of the gale, *i.e.* because of circumstances beyond the control of the crew, an "act of God", then all passengers, crew and merchants have to share the loss. Moreover, in this fragment (Chapter 38), the procedure of jettisoning is slightly different than in Chapter 9, discussed above. In Chapter 38, it is stated that if goods have to be thrown to the sea in order to lighten the ship, the merchants will throw first and then the sailors will take a hand. There is not a consultation here between the master and the merchants. Although not stated in so many words, based on this fragment I would conclude that it will be first left to the merchants to decide what to jettison. When the ship faces such a danger perhaps seamen can profit of the chaos on board and attempt to steal some of the cargo. *The Rhodian Sea-Law* provides a double penalty for such robbers: they have to pay compensation to the damaged party twofold the value of the good, and they lose any gain that they would have been entitled to.

In conclusion, the rules on GA in *The Rhodian Sea-Law* are regulated in a more complicated manner than the *Digest*. When it comes to rules on the contribution related to GA, *The Rhodian Sea-Law* makes reference to maritime partnerships whereas the *Digest* mentions the contract of carriage between the master and the passengers. Furthermore, in *The Rhodian Sea-Law* there is extensive reference to the role and responsibility of the merchants, as well as that of the master and crew when estimating the contribution. *The Rhodian Sea-Law* is rather exhaustive in describing the different difficulties that can arise when travelling by sea and could have as a result the damage of the cargo and / or the damage of the ship or part of it and (in) trying to settle the relevant questions of GA and contribution and salvage.

[61] Translation by Humphreys, 126.

General Average in the Basilica (ca. 900 AD)

As mentioned already in the first section, the legislation of Justinian consisted of four parts, the *Codex*, the *Digest*, the *Institutes* and the *Novels*. For ideological and practical reasons, Justinian issued most of this legislation in Latin. This was a problem at the time of Justinian since Greek was the dominant language within the Byzantine Empire. His subjects could not understand his legislation, which is why, shortly after its promulgation, texts appeared in Greek commenting on and summarizing parts of it. This transition from Latin to Greek in the sixth century traditionally marks the beginning of Byzantine law.[62] By the end of the ninth century numerous such Greek texts were in existence. Around 900 AD, many of these were collected into one massive legal compilation, the *Basilica* (Imperial Laws) consisting of sixty books, and from the tenth to the twelfth century *scholia* (marginal notes) were added.[63] The *Basilica* was the last important piece of legislation enacted in the Byzantine Empire. There is a peculiarity regarding maritime subjects in the *Basilica*, including those relating to GA. There are two sets of rules on the same subjects. How is this possible and why was it done?

As explained above, the *Basilica* consists of Justinianic legislation, but in Greek. *Digest* fragments were incorporated in the *Basilica* from Greek legal collections, mainly from a summary (*summa*) written by the "Anonymous Senior", a sixth-century Byzantine jurist. The *Digest* fragments of GA referred to in section "General Average, the Rhodian Law of Jettison and the Roman Jurists: The *Digest* (6th c. AD)" were reproduced in the third title of the fifty-third book of the *Basilica*. The transmission of these *Digest* fragments was haphazard, and in the Groningen edition of the *Basilica* this particular book was reconstructed by the editors—as far

[62] See B. H. Stolte, 'Is Byzantine Law Roman Law?', *Acta Byzantina Fennica*, 2 (2003–2004): 111–126 and his 'The Law of New Rome: Byzantine Law (Chapter 17)', in D. Johnston ed., *The Cambridge Companion to Roman Law* (Cambridge 2015), 355–373.

[63] On the *Basilica scholia*, and their distinction into "old" (dating from the sixth century AD) and "new" (dating from the eleventh and twelfth centuries), see S. Troianos, *Die Quellen des byzantinischen Rechts* (Berlin 2017), 226–229. The latest edition of the *Basilica* is: H. J. Scheltema, D. Holwerda and N. van der Wal, *Basilica*: A (text) I–VIII, B (*scholia*), I–IX (Groningen, 1953–1988), available at http://referenceworks.brillonline.com/browse/basilica-online (last accessed 4 December 2021) together with a comprehensive and updated introduction, *Praefatio* by B. H. Stolte, and an elaborate bibliography (categorized by subject) by Th. E. van Bochove ("BT [*Basilica* text]" and "BS [*Basilica scholia*]")—text and scholia are edited separately in the Groningen edition.

as they could—on the basis of other works.[64] In 1978, after the edition of the fifty-third book of the *Basilica* in the so-called Groningen edition, the German scholar Dieter Simon discovered a new manuscript that contained *The Rhodian Sea-Law*.[65] In 2007, George Rodolakis edited the fifty-third book of the *Basilica* taking into account all preserved manuscripts.[66]

What is interesting is that the Byzantine collection *The Rhodian Sea-Law* (which, as explained above, also includes GA rules)[67] was included as a whole in the eighth title of the fifty-third book of the *Basilica*.[68] This raises some questions. For example, since the *Digest* fragments about GA were transmitted in the *Basilica*, why did the compilers also include also the GA provisions of *The Rhodian Sea-Law*? Moreover, there is some discussion on whether *The Rhodian Sea-Law* was inserted in the text of the *Basilica* as an eighth title, or as a supplement.[69] In any case, the fact that the whole text of the Byzantine collection *The Rhodian Sea-Law* was included in the *Basilica* proves the importance of the latter. Moreover, *Basilica* fragment B. 53,1,1 states that maritime issues (or what happens at sea) are regulated according to *The Rhodian Sea-Law* so long as no

[64] See on this the introduction of the editors Herman J. Scheltema and Nico van der Wal in vol. VII of the *Basilicorum Libri LX*, Series A, Textus Librorum LIII-LIX (Groningen 1974), v–xxiii. On information about this edition including the material used and instructions on how to use it, see most recently B. H. Stolte, 'New Praefatio' to *Basilica Online. Justinian's Corpus iuris in the Byzantine World* (Leiden 2018), 7. http://referenceworks.brillonline.com/browse/basilica-online (last accessed 4 December 2021). This text by B. H. Stolte has also been published separately in W. Brandes ed., *Fontes Minores XIII* (Berlin/Boston 2021), 239–264.

[65] That was manuscript Vaticanus Barberinianus gr. 578; on this see B. H. Stolte, 'New Praefatio', 7 (= *Fontes Minores* XIII, Berlin/Boston 2021, 261). See also D. Simon, 'Handschriftenstudien zur byzantinischen Rechtsgeschichte', *Byzantinische Zeitschrift*, 71 (1978): 332–348, esp. 340–343.

[66] Rodolakis, the edition on pages 213–260.

[67] See above *General Average in the Byzantine Collection 188 Entitled "The Rhodian Sea-Law" (7–8th C. AD)*.

[68] Without its *prooimion* however.

[69] The last editors of the *Basilica* consider that *The Rhodian Sea-Law* had been included as a supplement in the *Basilica*; Rodolakis takes into account new evidence and with convincing arguments concludes that *The Rhodian Sea-Law* was instead incorporated in the *Basilica* as the eighth title of the fifty-third *Basilica* book, see Rodolakis, especially 175–204.

other law contradicts it.[70] As Rodolakis rightly observes, the fact that this fragment was continuously repeated in subsequent collections proves that there was a common belief that *The Rhodian Sea-Law* had become the standard “maritime code”.[71]

In the *Basilica,* we therefore find both GA rules transmitted from the *Digest* and the Average rules included in *The Rhodian Sea-Law*. As Ashburner noted, the GA rules in *The Rhodian Sea-Law* do not contradict those in the *Digest*, rather they supplement them. As mentioned above, *The Rhodian Sea-Law* regulated not only GA but also other dangers of travelling by sea. So the text of the *Digest* does not exclude the text of *The Rhodian Sea-Law*. This is especially clear in those rules dealing with salvage and rewards. In *The Rhodian Sea-Law* we find several rather detailed provisions which deal with rewards of salvaging wrecked goods. In contrast, in the *Basilica* part which transmits *Digest* fragments, there are no such provisions. This perhaps could be one reason why *The Rhodian Sea-law* was included as a whole in the *Basilica* just after the *Digest* fragments in Greek on maritime issues. In other words, *The Rhodian Sea-Law* supplemented the *Digest* fragments on jettison and shipwreck,[72] so it made sense to include both.

Two more possible reasons for the inclusion of *The Rhodian Sea-Law* in its entirety were its simplicity, and the compatibility of this with the working method familiar to the *Basilica* compilers. It was much easier to include the whole text instead of selecting those rules which supplemented the *Digest* fragments. Furthermore, the *Basilica* compilers were used to this way of working, of using different Greek texts that they had at their disposal to fill in the contents of the *Basilica*; this compilation was a kind of patchwork of legal texts.

Basilica rules on GA are repeated in later legal works deriving from or using as a source the *Basilica*; for example, the *Synopsis Basilicorum maior*, a tenth-century alphabetically arranged selection of the sixty books of the *Basilica* with references.[73] This work was broadly used in the

[70] B. 53,1,1: “Τὰ ναυτικὰ ἤγουν τὰ κατὰ θάλασσαν τῷ Ῥοδίῳ νόμῳ κρίνεται, ἐν οἷς αὐτῷ μὴ ἕτερος ἐναντιοῦται νόμος.”

[71] Rodolakis, 61.

[72] See Ashburner, *The Rhodian Sea-Law*, cxii.

[73] See *Synopsis Basilicorum maior*, under the Greek letter N [Περὶ ναυτικῶν ἐνοχῶν…], especially 12–14 in I. and P. Zepos, *Jus Graecoromanum*, 8 vols, (Athens 1931), henceforth abbreviated as Zepos, *JGR*, V: 436–440.

following centuries because it was briefer than the *Basilica* and therefore easier to copy.[74] The *Basilica* were also the basic source of the *Ponema Nomikon*, a law book compiled in 1073/1074 by the high-court judge Michael Attaleiates[75] after an order of the Byzantine emperor Michael VII Doukas.[76] In the thirty-second title of the *Ponema Nomikon*, which refers *inter alia* to masters and seamen, the *Basilica* rules on GA are repeated.[77] Another work deriving from the *Basilica* is the thirteenth-century *Synopsis Basilicorum minor* ("little alphabetical lawbook"), which was called "minor" to distinguish it from the "major" *Synopsis* mentioned earlier.[78] The compiler of the *Synopsis Basilicorum minor* used mainly the *Ponema Nomikon* and the *Synopsis Basilicorum maior* and arranged his material alphabetically. In the *Synopsis Basilicorum minor*, *Basilica* rules on GA are repeated under the Greek letter "N" which refers to maritime affairs because in Greek the words related to maritime affairs begin with the Greek letter "N", for example: "Ναυτικά" = dealing with maritime/sea affairs, "Naῦται" = sailors, "Ναύκληρος" = master, "Naῦς" = ship, "Ναυάγιο" = shipwreck".[79]

GA rules deriving from the *Basilica* are also included in the fourteenth-century *Hexabiblos*, which has been one of the most influential Byzantine legal collections throughout the centuries. The *Hexabiblos*, which consists of six books, as its title implies ("ἕξ = six, and βιβλίον = book), was

[74] See Troianos, *Die Quellen*, 222–224.

[75] Attaleiates was serving at that time as a judge at the Court of the Hippodrome and the *velum*, which was a high imperial court in Constantinople. He is mainly known for his *History*, an account of the Byzantine events from 1034 to 1079/80. On Attaleiates, see D. Krallis, *Serving Byzantium's Emperors: The Courtly Life and Career of Michael Attaleiates* (London 2019). On Byzantine justice and courts for this period, see A. Gkoutzioukostas, 'Administrative structures of Byzantium during the eleventh century: Officials of the Imperial Secretariat and Administration of Justice', in B. Flusin and J.-C. Cheynet eds., *Travaux et Mémoires: Autour du Premier humanisme byzantine & des Cinq études sur le XIe siècle, quarante ans après Paul Lemerle* (Paris 2017), 561–580.

[76] On the *Ponema Nomikon*, see Troianos, *Quellen*, 232–233.

[77] Zepos, *JGR*, VII: 456–457.

[78] On the *Synopsis minor*, see S. Perentidis, 'Recherches sur le texte de la Synopsis minor', in *Fontes Minores* 6 (1984): 219–273.

[79] *Synopsis Minor Basilicorum*, under the Greek letter N, 15–22 in Zepos, *JGR*, VI: 470–472.

a legal manual compiled by a Byzantine judge in Thessaloniki called Constantine Harmenopoulos.[80] Harmenopoulos based his compilation on many Byzantine legal works as his aim was to create a legal handbook, easy to use in legal practice. Hence, the *Hexabiblos* was not a law, yet in practice because of its simplicity, it was used as a law and became an influential text in the Eastern part of Europe. It was rendered many times into Modern Greek, reprinted several times in Greek regions and it was used in legal practice up to the promulgation of the first Greek civil code in 1946.[81] The *Hexabiblos* was also translated into Slavic languages and spread throughout the Balkan region. But it received much attention also in Western Europe, as shown by the numerous critical editions and translations.[82] The eleventh title of the second book of the *Hexabiblos* is entitled "About maritime issues" (Περὶ ναυτικῶν) and consists of twenty-two paragraphs, compiled with fragments taken mainly from the *Synopsis Basilicorum minor*.[83] According to the first paragraph of this title, all maritime affairs should be regulated by *The Rhodian Sea-Law* if there is no law that contradicts it.[84] What is interesting about this title of the *Hexabiblos* is that its compiler deals with GA issues deriving from the *Digest* (as transmitted in the *Basilica* and then incorporated and summarized in the works deriving from the *Basilica*), but he also deals with issues that are regulated only in *The Rhodian Sea-Law*, such as the reward

[80] Critical edition by G. E. Heimbach, *Constantini Harmenopuli: Manuale legum sive Hexabiblos* (Leipzig: T. G. Weigel 1851); See also, C. G. Pitsakes, *Πρόχειρον Νόμων ἢ Ἑξάβιβλος*, [= Procheiron Nomon or Hexabiblos] (Athens 1971) [Pitsakes reprints with amendations the edition by Heimbach].

[81] On the influence of the *Hexabiblos*, see G. Mousourakis, *Roman Law and the Origins of the Civil Law Tradition* (Berlin 2014), 231 and Constantine Pitsakes, *Hexabiblos*, Introduction, 5, 83–111.

[82] See D. Penna, 'Dans la tradition d'Harmenopoulos…'. Some notes on the tradition of Harmenopoulos' *Hexabiblos* in the Netherlands', *Groninger Opmerkingen en Mededelingen*, 32 (2015): 93–110 Available at: https://ugp.rug.nl/grom/article/view/27026 (last accessed 4 December 2021).

[83] I wish to thank Marios Tantalos for letting me consult his unpublished work: *Identifikation aller von Harmenopoulos in der Hexabiblos (1345 p.C.) benutzten Quellen des byzantinischen Rechts*, conducted for the Max-Planck-Institut für Europäische Rechtsgeschichte, Akademie der Wissenschaften zu Göttingen. According to him, from the twenty-two chapters of this title, seventeen are taken from the *Synopsis Basilicorum minor*, two from the *Synopsis Basilicorum maior* and three from the *Prochiron*, a legal handbook dated around the end of the ninth century, beginning of tenth century.

[84] This is a repetition of the *Basilica*, B. 53,1,1.

that someone receives when he saves a good from a wreck. The rules hence remain the same but through the centuries they are summarized or simplified. Their core however remains the same.

Conclusion

Justinianic legislation remained the bedrock of Byzantine legislation. Rules of GA from Justinian's legislation were transmitted and repeated in later Byzantine legal collections, including the *Basilica* and works deriving directly or indirectly from it such as the tenth-century *Synopsis Basilicorum*, the eleventh-century *Ponema Nomikon* and the fourteenth-century *Hexabiblos*. Most interesting in respect of GA and other maritime legal issues is the Byzantine collection known by the name of *The Rhodian Sea-Law* issued in the seventh or eighth century.

For Roman jurists, the decisive criterion for the payment of compensation and the sharing of the damage among all parties was common danger. In Justinian's *Digest* the key to the proportional distribution of loss was the contract of carriage between the master and the passenger. In the Byzantine collection *The Rhodian Sea-Law*, GA rules were extended to more cases than just strict Average cases. All kinds of situations relating to dangers that a ship can face when travelling were dealt with, with distinctions being made between the different parties and their negligence being taken into consideration into estimating the payment. Moreover, in *The Rhodian Sea-Law* the proportional distribution of the contribution of the passengers is based on an agreement that must have been related to partnership agreements.

These differences between the GA treatment in the *Digest* and *The Rhodian Sea-Law* can perhaps be related to the origin of *The Rhodian Sea-Law*. My assumption is that the rules on GA in *The Rhodian Sea-Law* do not seem to derive from the *Digest* fragment 14.2 entitled "*De lege Rhodia de iactu*".[85] The *Digest* fragment 14.2 was transmitted in book 53 of the *Basilica*, in which the whole of *The Rhodian Sea-Law* was also included. The fact that both rules on GA deriving from the *Digest* and

[85] This is based on the phraseology and examples used in this part of the *Digest* and in *The Rhodian Sea-Law* and their first comparison. A thorough comparison of the entirety of both texts, taking into account other parts of the *Digest* (such as those dealing with partnership, e.g.) and other medieval maritime collections is necessary to reach sound comparative conclusions regarding *The Rhodian Sea-Law*.

The Rhodian Sea-Law were included in the *Basilica* can be explained by the fact that *The Rhodian Sea-Law* is more extensive and can therefore sometimes supplement the *Digest*. Moreover, including the whole of the text of *The Rhodian Sea-Law* instead of selecting specific parts of it, best suited the method of the compilers of the *Basilica*.

In the *Digest*, reference is made to a law of the Rhodians on jettison. The Rhodians are mentioned again in the title of the Byzantine collection *The Rhodian Sea-Law*. There is a lot of mystery surrounding Rhodes and the origins of the rules of GA. No ancient texts have survived, but the Roman jurists do refer to rules of jettison and General Average deriving from Rhodes. Be this as it may, these ancient rules have been extremely influential. It is interesting to add that medieval jurists had even discussed the possibility of adopting the rules of the *lex Rhodia de iactu* on land when property was sacrificed by individuals for the common good. In fact, in the early-seventeenth-century Dutch Republic, the court of Friesland actually applied the *Digest* rules of the *lex Rhodia* about GA to a land situation.[86]

It is no exaggeration, therefore, to say that GA rules deriving from Rhodes have been one of the longest and influential set of rules in legal history. GA is a legal principle that still exists in almost every civil code. We have no remains of the Colossus of Rhodes, one of the seven ancient wonders of the world mentioned at the beginning of this essay, but we still have indirect "remains" of the ancient Rhodian rules on GA. Perhaps the real wonder of the world was not so much the Colossus of Rhodes but the rules of Average which have a millennia old history and continue to be influential to this day.

[86] See J. H. A. Lokin, F. Brandsma and C. Jansen, *Roman-Frisian Law of the 17th and 18th Century* (Berlin 2003), 252–268, where the authors discuss in detail the case of Sierck Lieuwes versus the States of Friesland with references to the opinions of medieval jurists on the *lex Rhodia de iactu*. In short, the property of Lieuwes was burned down for the common interest, in order to save the Frisians from the Spanish troops.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

Rules and Practices of General Average in the Islamic Mediterranean on the Eve of the Emergence of the Italian Communes

Hassan Khalilieh

The origin of the term General Average provides an interesting introduction to the principles of the law on jettison and contribution. The English word ‘average’ derives from the Latin *avaria*,[1] which in turn

[1] S. Battaglia, *Grande Dizionario della Lingua Italiana* (Naples 1961), 1: 871, states: “Dall’ Ar. *ʿawāriya*, ‘merce avariata’, deriv. da *ʿawār*, ‘danno deterioramento’”; E. Vallès, *Pal-Las Diccionari Català* (Barcelona 1962), 60: “Avaria; Dany sofert per les mercaderies en el transport”. Lexical influences of Arabic are tangible on Iberian languages, like thousands of Spanish words loaned from Arabic, the indigenized Spanish word *averî* owes its roots from *ʿawār* or *ʿawāriya*; on this see A. Duro, *Vocabolario della Lingua Italiana* (Rome 1986), 1: 359–360, among the other meanings the editor writes: (a) “Qualunque danno sofferto da una nave”, (b) “Nella tecnica dei trasporti, danno o deterioramento sofferto da una merce in viaggio…”. W. H. Maigne D’Arnis, *Lexicon Manuale Ad Scriptores Mediae Et Infimae Latinitatis* (Paris: L’Abbé Migne 1866), 251: “Avaria: indemnité payée aux négociants dont les merchandises ont péri en mer par suite de la nécessité où on s'est

H. Khalilieh (✉)
Department of Multidisciplinary Studies, University of Haifa, Haifa, Israel
e-mail: khalilih@research.haifa.ac.il

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_5

came from the Arabic *ʿawār* or *ʿawāriya*, signifying damaged merchandise or object.[2] The Latin word is unlikely to have existed prior to the middle of the tenth century, when the European Commercial Revolution in the Mediterranean world began. As Muslims began to dominate the main shipping lanes and strategic positions in the Mediterranean Sea from the second half of the seventh century onwards, hundreds of Arabic nautical and legal terms were Latinized/Romanized.[3] The word 'general' is self-explanatory, meaning here simply 'common'. Thus 'General Average' signifies the sacrifice made, or expenditure incurred, for the common safety and common good, in order to save ship, cargo, and humans imperilled in a joint maritime venture.[4] Jurisprudentially, the classical Arabic legal terms to signify proportional participation in losses are *muḥāṣṣa*,[5] *maqāṣṣa* (lit. compromise of settlement),[6] and *taqsīṭ*.[7]

trouvé d'en alléger le navire, par ceux dont les ballots, n'ayant pas eu le même sort sont arrivés à bon port". L. Marcel Devic, *Dictionnaire étymologique des mots français d'origine orientale* (Paris: Imprimerie nationale, 1876), 50–51: "Avaria grossa: Lancement à la mer du gréement et du chargement du navire pour l'alléger dans un cas de danger".

[2] Muḥammad Murtaḍā al-Ḥusaynī al-Zabīdī, *Tāj al-ʿArūs*, ed. by Ḥussein Naṣṣār (Kuwait 1974), 13: 157–158; E. W. Lane, *Arabic-English Lexicon* (Beirut 1980), 5: 2195, "*ʿawār* or *ʿuwār*: a defect or an imperfection in an article of merchandise and in a garment, or piece of cloth, and in a slave, and in a beast, and so in the like, and in a house or tent"; D. R. Noble, *The Principles of Islamic Maritime Law*, unpublished Ph.D. Thesis, School of Oriental and African Studies (The University of London 1988), 220. For a different interpretation see the contribution of Andrea Addobbati in this volume.

[3] Devic, *Dictionnaire étymologique des mots français*, 50–51; Muṣṭafā M. Rajab, *Al-Qānūn al-Baḥrī al-Islāmī ka-Maṣdar li-Qawāʿid al-Qānūn al-Baḥrī al-Muʿāṣir* (Alexandria 1990), 20.

[4] T. J. Schoenbaum, *Admiralty and Maritime Law* (St. Paul, MN 1994), 811.

[5] Qāḍī ʿIyāḍ Ibn Mūsā al-Yaḥṣubī, *Madhāhib al-Ḥukkām fī Nawāzil al-Aḥkām* (Beirut 1990), 235; Abū al-Qāsim Ibn Aḥmad al-Burzulī, *Jāmiʿ Masāʾil al-Aḥkām li-mā Nazala min al-Qaḍāyā bi'l-Muftīn wa'l-Ḥukkām* (Beirut 2002), 3: 642; Muṣṭafā A. Ṭāher ed., 'Kitāb Akriyat al-Sufun wa'l-Nizāʿ bayna Ahlihā', *Cahiers de Tunisie* 31 (1983): 5–54, 33.

[6] F. E. Vogel and S. L. Hayes, *Islamic Law and Finance: Religion, Risk, and Return* (The Hague 1998), 105.

[7] H. S. Khalilieh, *Islamic Maritime Law: An Introduction* (Leiden 1998), 98; M. Ben-Sasson, *The Jews of Sicily 825–1068: Documents and Sources* (in Hebrew) (Jerusalem 1991), 210–214, doc. TS Ar. 5.1, l. 29; *ibid*, 350–358, doc. TS 16.13, l.28; TS 16.13*v*., ll. 24, 28; S. D. Goitein and M. A. Friedman, *India Traders of the Middle Ages: Documents from the Cairo Geniza* (Leiden 2008), 163, 331 doc. TS 20.130, l. 11. The term *qisṭ* (lit. justice, fairness, equity) and its derivatives are repeatedly referred to in many Qurʾānic verses. In certain occasions, the word *qisṭ* is used interchangeably with the term *ʿadl* meaning to act equitably, rightly, and justly. See, for instance, *Qurʾān* 11:85:

This essay's central question revolves around Muslim jurists' treatment of General Average loss and contribution as reflected by the early tenth-century Mālikī treatise titled *Kitāb Akriyat al-Sufun*, written by Muḥammad ibn ʿUmar al-Kinānī al-Andalusī (d. 310 A.H./923 C.E.).[8] It delves into the rules of jettison, items included and excluded from being averaged, assessment of goods lost and those which remain intact, the inclusion or exclusion of freight charges, and the vessel's valuation. These various rules, their agreement and points of disagreement, are discussed here. As for human jettison and monetary contributions for lives, this subject has received exhaustive treatment in an earlier study.[9] It is just important to underline that, in General Average cases, cargo loss would deliberately occur in the effort to save lives and cargo.

Jettisoning cargo might make the ship lighter and more manoeuvrable in adverse circumstances.[10] In pirate-infested regions, getting rid of

"وَيَا قَوْمِ أَوْفُوا الْمِكْيَالَ وَالْمِيزَانَ بِالْقِسْطِ وَلا تَبْخَسُوا النَّاسَ أَشْيَاءَهُمْ" (And O my people! Give just measure and weight nor withhold from the people the things that are their due)". Thus, people are required to give others their dues in full without encroaching upon their proprietary rights.

[8] Ṭāher ed., 'Akriyat al-Sufun'; for the English translation see H. S. Khalilieh, *Admiralty and Maritime Laws in the Mediterranean (ca. 800–1050): The Kitāb Akriyat al-Sufun vis-à-vis the Nomos Rhodion Nautikos* (Leiden 2006), 273–330.

[9] H. S. Khalilieh, 'Human Jettison, Contribution for Lives, and Life Salvage in Byzantine and Early Islamic Maritime Laws in the Mediterranean', *Byzantion* 75 (2005), 225–235.

[10] Divine books refer to cargo and human jettison. The *Book of Jonah* 1:5, describes how the ship carrying Prophet Jonah, was caught in strong storms and rough sea. The sailors were forced to cast cargo and personal effects overboard to lighten the ship: "But the Lord let loose a hurricane, and the sea ran so high in the storm that the ship threatened to break up. The sailors were afraid, and each cried out to his god for help. Then they threw things overboard to lighten the ship". Jonah's experience at sea is corroborated by the Holy Qurʾān 37: 139–145: "وَإِنَّ يُونُسَ لَمِنَ الْمُرْسَلِينَ (139) إِذْ أَبَقَ إِلَى الْفُلْكِ الْمَشْحُونِ (140) فَسَاهَمَ فَكَانَ مِنَ الْمُدْحَضِينَ (141) فَالْتَقَمَهُ الْحُوتُ وَهُوَ مُلِيمٌ (142) فَلَوْلا أَنَّهُ كَانَ مِنَ الْمُسَبِّحِينَ (143) لَلَبِثَ فِي بَطْنِهِ إِلَى يَوْمِ يُبْعَثُونَ (144) فَنَبَذْنَاهُ بِالْعَرَاءِ وَهُوَ سَقِيمٌ 145)) [So also Jonah among those sent (by Us) (139) When he ran away (like a slave from captivity) to the ship (fully) laden (140) He (agreed to) cast lots, and he was condemned (141) Then the big fish did swallow him, and he had done acts worthy of blame (142) Had it not been that he (repented and) Glorified Allāh, (143) He would certainly have remained inside the fish till the Day of Resurrection (144) But We cast him forth on the naked shore in a state of sickness (145)]". The English translation of the Qurʾānic verses is from ʿAbdullāh Y. ʿAlī, *The Meaning of the Holy Qurʾān* (Brentwood 1991); A. Afsar, 'A Comparative Study of the Art of Jonah/Yūnus Narrative in the Bible and the Qurʾān', *Islamic Studies*, 48/3 (2009): 319–339; A. H. Johns, 'Jonah in the Qurʾān: An Essay on Thematic Counterpoint', *Journal of Qurʾānic Studies,* 5/2 (2003): 48–71, 48, 55, 60, 62, 64–65; S. D. Goitein, *A Mediterranean Society: The Jewish Communities of the Arab World as Portrayed in the*

valuable cargo might also make the ship a less tempting target for robbers.[11] In war zones, a ship without cargo also represented a poor target, inasmuch as it would not provide the enemy with spoils.[12] Technical failure and collision could also necessitate the jettisoning of cargo.[13] Thus, it was lawful to jettison part or all of a vessel's cargo, equipment, and even human beings, if necessary, to make her lighter and more buoyant, and therefore salvageable. However, even if circumstances provided plausible reasons for jettison, numerous criteria needed addressing for settlement by General Average.

Rules and Criteria of Jettison

Regardless of the presence or absence of the cargo's owners aboard a ship, Muslim jurists authorized ship masters to sacrifice part or all or of a shipment without obtaining owners' or their agents' consent. This rule notably applied in situations when the crew did not have the luxury of time to settle terms with cargo owners.[14] If merchants or their agents

Documents of the Cairo Geniza—Economic Foundations (Berkeley 1967), 1: 320–321; M. Gil, *Palestine during the First Islamic Period (634–1099)* (in Hebrew) (Tel Aviv 1983), 3: 268. A document dated to 1060 C.E.—(TS 8 J 19, f. 27, ll. 3–6)—describes a maritime venture from Tyre to Ramle and how the riverboat in which the writer sailed almost wrecked due to inclement weather conditions. They had to jettison part of the ship's cargo and gear: "(3) We set sail [in Tyre] for Jaffa, the port of Ramle. However, a wind arose against us from the land. (4) It became a storm and drove us out into the midst of the sea, where we remained for four days, giving up all hope for life. We were without sails and oars and the rudder (5) was broken. Likewise, the sailyards were broken the waves burst into the *qārib*. Realizing that our ship was a mere riverboat (*ʿushārī*), small (6) as a ferry, we cried: 'Allāh Allāh'. We threw part of the cargo overboard".

[11] Goitein and Friedman, *India Traders*, 370, doc. ENA NS 48, f. 9; Khalilieh, *Islamic Maritime Law*, 150–151.

[12] Khalilieh, *Admiralty and Maritime Laws*, 63, 72, 83, 122, 123, 143, 146, 151, 166, 219, 276, 284.

[13] Khalilieh, *Islamic Maritime Law*, 105–108.

[14] Ṭāher ed., 'Akriyat al-Sufun', 30, 33; Abū al-Walīd Muḥammad Ibn Aḥmad Ibn Rushd, *Fatāwā Ibn Rushd* (Beirut 1987), 2: 1191–1192; idem, *Masāʾil Abī al-Walīd Ibn Rushd* (Beirut 1993), 2: 1051–1052; Shihāb al-Dīn Abū al-ʿAbbās Ibn Idrīs al-Qarāfī, *Al-Dhakhīra* (Beirut 1994), 5: 490; Abū al-ʿAbbās Aḥmad Ibn Yaḥyā al-Wansharīsī, *Al-Miʿyār al-Muʿrib wa'l-Jāmiʿ al-Mughrib ʿan Fatāwā Ahl Ifrīqiya wa'l-Andalus wa'l-Maghrib* (Beirut 1981), 8: 298–299, 311–312; Abū al-Qāsim Muḥammad Ibn Aḥmad Ibn Juzayy, *Al-Qawānīn al-Fiqhiyya* (Tunis 1982), 337; Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 235, 238. On p. 235, he relates an account attributed to Abū al-Ḥasan al-Lakhmī (d. 478

were on board, the ship master could order them to jettison their own goods.[15]

Muslim jurists discussed specific scenarios with particular legal implications arising from the act of jettison. In principle, a cargo owner was liable for losses if he threw his own merchandise overboard without consulting the master, the crew, and his fellow merchants and passengers. If one person cast another man's goods into the sea, the former became liable for the loss.[16] But, if *A* called upon *B* to voluntarily sacrifice *B*'s cargo, *B* had no legal right to reimbursement since *A* did not promise to pay him for the loss.[17] *A* was required to indemnify *B* if *A* called upon *B* to jettison cargo and agreed to pay him for the loss.[18] *A* was also obliged to guarantee *B*'s losses if the latter made a sacrifice for the benefit of *A*.[19] If *A* called upon *B* to jettison *C*'s cargo, and *A* guaranteed *B* to

A.H./1080 C.E.) stating: "If the sea turns rough and the fear of sinking becomes imminent, which necessitates jettisoning cargoes, it is obligatory to carry it on the spot without delay. If someone called for it, his advice should be considered". He further rules that when a sinking vessel has to jettison cargo, and if the freight is composed exclusively of equivalent loads, one proceeds by drawing lots without any discrimination between their owners: men, women, slaves, and *dhimmī*s. Abū Bakr Aḥmad Ibn ʿAbd Allāh Ibn Mūsā al-Kindī, *Al-Muṣannaf* (Masqaṭ 1983), 18: 60; "In case the ship-owner is afraid of shipwreck, he is entitled to jettison the commercial commodities of the merchants even if they are unwilling, and I favour throwing cargo overboard when it appears necessary. It is also said that he is entitled to jettison the entire cargo or any one's cargo".

[15] Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 237, states: "The ship-owner is authorized to call upon them (*i.e.* merchants): 'jettison your cargo in order to lighten my vessel' [*min ḥaqq ṣāḥib al-markab an yaqūl lahum {al-tujjār}: iṭraḥū matāʿakum li-yakhiffa markabī*]".

[16] Muḥammad Ibn Idrīs al-Shāfiʿī, *Al-Umm* (Beirut 1973), 6: 86; Abū al-Ḥasan ʿAlī Ibn al-Ḥusayn Ibn Muḥammad al-Sughdī, *Al-Nutaf fī al-Fatāwā* (Beirut 1984), 2: 791–792; Muwaffaq al-Dīn Abū Muḥammad ʿAbd Allāh Ibn Aḥmad Ibn Muḥammad Ibn Qudāma, *Al-Mughnī* (Cairo 1986), 12: 550; Qarāfī, *Al-Furūq* (Tunis 1885), 4: 11; ʿĀmir Ibn ʿAlī al-Shammākhī, *Al-Īḍāḥ* (Beirut 1970), 3: 610; Kindī, *Al-Muṣannaf*, 18: 59; Abū Zakariyyā Yaḥyā Ibn Sharaf al-Nawawī, *Rawḍat al-Ṭālibīn* (Beirut 1992), 7: 191.

[17] Ibn Qudāma, *Al-Mughnī*, 12: 550; Kindī, *Al-Muṣannaf*, 18: 59; Nawawī, *Rawḍat al-Ṭālibīn*, 7: 192.

[18] Abū Ḥāmid Muḥammad Ibn Muḥammad al-Ghazālī, *Kitāb al-Wajīz fī Fiqh al-Imām al-Shāfʿī* (Cairo 1899), 2: 152; Nawawī, *Rawḍat al-Ṭālibīn*, 7: 191; Ibn Qudāma, *Al-Mughnī*, 12: 550; ʿAbd Allāh Ibn ʿUmar al-Bayḍāwī, *Al-Ghāya al-Quṣwā fī Dirāyat al-Fatwā* (Al-Dummām 1982), 1: 901.

[19] Ibn Qudāma, *Al-Mughnī*, 12: 550; Sughdī, *Al-Nutaf*, 2: 792: "*wa-in qāla: ulqī matāʿī wa-taḍmanahu lī? fa-qāla: naʿam; fa-alqāhu, ḍaminahu lahu*".

indemnify *C* if the latter should seek remuneration, “the liability will be laid upon the thrower (*B*) rather than the one who gave the order (*A*)”.[20] If *A* called upon *B* to jettison his merchandise, and the former guaranteed to remunerate one half the forfeiture, the second half to be paid by the passengers, then *B* would only be entitled to receive one half unless the passengers had already guaranteed to pay him the second half.[21] If *A* said to *B*: “Jettison your merchandise and the passengers and I guarantee to remunerate you”, and then the passengers denied that they authorized *A* to speak on their behalf, *A* would be solely responsible for the entire loss. In fact, some jurists ruled that the authorization should be regarded as invalid unless the majority of passengers on board selected him to speak on their behalf.[22] These scenarios are not applicable to the ship master, who enjoyed exclusive jurisdiction over the ship, crew members, passengers, and cargoes during the journey, as shall be discussed in due course.

What is it recommended to jettison, the heaviest goods or those nearest at hand? And, what cargo had to be sacrificed, the low value shipment, or that which would best stabilize the vessel? Although these questions remained controversial among Muslim jurists,[23] the overwhelming majority recommended throwing overboard the heaviest accessible goods,

[20] Nawawī, *Rawḍat al-Ṭālibīn*, 7: 194.

[21] Ibn Qudāma, *Al-Mughnī*, 12: 551.

[22] Shāfiʿī, *Al-Umm*, 6: 86; Ghazālī, *Al-Wajīz*, 2: 152; Ibn Qudāma, *Al-Mughnī*, 12: 550–551; Nawawī, *Rawḍat al-Ṭālibīn*, 7: 193.

[23] Contrary to the Byzantine statutory commercial maritime laws, as reflected in the *Nomos Rhodion Nautikos*, our legal knowledge of Islamic maritime practices is derived from jurisprudential queries, especially *fatāwā*s (*responsa*), *masāʾil* (unsolved questions or problems), *nawāzil* (occurrences/genuine cases), and *aḥkām* (decisions or judgments). Moreover, in rendering legal opinions, jurists and judges often cited general custom (*ʿurf ʿāmm*), specific custom (*ʿurf khāṣṣ*), jurists’ custom (*ʿurf al-fuqahāʾ*), artisans’ custom (*ʿurf al-ṣunnāʿ*), and merchants’ custom (*ʿurf al-tujjār*). All of the above explains why Muslim jurists held different opinions and rulings on a certain issue. Needless to say that statutory legislation of Islamic maritime laws in the Mediterranean arena did not exist prior to the early nineteenth century. On this: Khalilieh, *Islamic Maritime Law*, 13–15; idem, ‘The *Lex Mercatoria Maritima*: An Abridgement of the Jurisprudential Principles of the Early Islamic Maritime *Qirāḍ*’, *Comparative Studies of South Asia, Africa and the Middle East*, 40 (2020): 266–276, 267.

regardless of their value.[24] Therefore, if someone cast accessible lighter goods overboard, though the heaviest goods were accessible to the same degree, then he was solely responsible for the loss.[25] This requirement raised the question of how the goods were stowed on a ship, in view of the likelihood of jettison, as well as taking into account the type of voyage and the likelihood of risk, such as whether the ship was sailing along the coast or on the high seas. In coastal navigation, jurists recommended that goods be arranged in accordance with their destinations: placing those to be unloaded first in the most accessible areas, and so forth. This rule likely applied to ships expected to make frequent stops.[26] Conversely, when sailing across the open sea, ships were required to place the heaviest goods in the bottom as ballast. This rule was particularly applicable to liners sailing between two fixed ports.

[24] Ṭāher ed., 'Akriyat al-Sufun', 43; Abū Muḥammad ʿAlī Ibn Aḥmad Ibn Saʿīd Ibn Ḥazm, *Al-Muḥallā bil-Āthār* (Beirut 1988), 7: 27; Wansharīsī, *Al-Miʿyār*, 8: 298–299, 309, 312; Ibn Rushd, *Fatāwā*, 2: 1191–1193; Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 238; Burzulī, *Jāmiʿ Masāʾil al-Aḥkām*, 3: 658–659; Muḥammad Ibn al-Qāsim al-Nuwayrī, *Kitāb al-Ilmām bi'l-Iʿlām fī-mā Jarat bi-hi al-Aḥkām wa'l-Umūr al-Muqḍiya fī Waqʿat al-Iskandariyya* (Hyderabad 1969), 2: 243; S. D. Goitein, 'Jewish Trade in the Mediterranean at the Beginning of the Eleventh Century'(in Hebrew), *Tarbiz*, 36/1 (1967): 366–395, 378–379; Ben-Sasson, *Jews of Sicily*, 229–233 [56], TS 10 J 19, f. 19, ll. 6–15. An early eleventh century document from the archive of Joseph Ibn ʿAwkal contains invaluable details that confirm this hypothesis. The sender, Ephraim Ibn Ismāʿīl al-Jawharī, an agent of Ibn ʿAwkal who managed his business with the Maghrib, describes how two ships heading for Sicily were forced to jettison one hundred bales of cargo near the Pharos: "I have already informed you that I loaded all the bales destined for Palermo and al-Mahdiyya after an arduous effort (…) and that the ships bound for Sicily jettisoned approximately one hundred bales. Sixteen of them belonged to my master—*may God prolong his esteem*—eight bales were in Daysūr's ship, and another eight bales were in the ship of Prince ʿAlī. Even the ships heading for al-Mahdiyya, jettisoned cargo into the sea, but nothing of yours was thrown overboard since all your bales were in the hull, none on deck [*fī buṭūn al-marākib laysa ʿalā ẓuhūrihā*]." This document substantiates our assumption that vessels crossing the open sea carried the heaviest cargo in the hull, rather than on the deck, and that in time of crisis accessible cargo had to be thrown overboard first, regardless of its bulk.

[25] Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 235: "Abū al-Ḥasan al-Lakhmī declared: 'If the sea turns rough and the fear of sinking becomes imminent, which necessitates jettisoning cargoes, it is obligatory to do so on the spot without delay. Has someone called for it, his advice should be considered. If the passengers argue [about the kind of cargoes], the lowest value items shall first be jettisoned. If their values are similar, then the heaviest is to be cast overboard. And if their weight is similar, both are to be thrown over on the spot.'"

[26] Ṭāher ed., 'Akriyat al-Sufun', 44; Kindī, *Al-Muṣannaf*, 21: 153.

The occasional practice of stowing all consignors' (shippers)[27] grain in a common pile became problematic when part of the grain was thrown overboard or got wet and damaged at sea. Take, for instance,

[27] A consignor or shipper is defined as the person, supplier, or owner of a shipment who organizes the dispatchment of commodities from one point to another. Historical accounts and documentary evidence from the Geniza establish that by the late ninth century, wealthy merchants no longer accompanied their cargoes overseas and instead entrusted them to their proxies or carriers, provided that the ship's scribe registered all shipments taken aboard in the cargo book and delivered a receipt to the actual shipper. Meanwhile, the shipper/consignor could send a receipt enclosed in a private message to the addressee (recipient of cargo) elaborating the shipment's contents and volume by means of express mail in order that it reach the destination before the vessel. This advanced technique of commerce and correspondence, documented by many Geniza merchants' letters, enabled merchants and their proxies to verify the volume and type of commercial items shipped by sea. In addition to the above, the scribe's duty was to record the names of sailors and passengers, and the volume and quality of cargo aboard the vessel in the ledger (cargo book); he was responsible for the safety of the shipment on board. Occasionally, he assigned a guard to be in charge of the stores. Thus, neither the sailors nor the passengers were allowed to remove any personal or commercial articles from the hold without the permission and the presence of the scribe. The scribe also enjoyed other responsibilities. Together with the ship's owner and/or master, the scribe had to witness any agreement concluded aboard the vessel. On the cargo book and presence of a scribe aboard merchant vessels, see Ṭāher ed., 'Akriyat al-Sufun', 37; ʿAlī Ibn Yaḥyā al-Jazīrī, *Al-Maqṣad al-Maḥmūd fī Talkhīṣ al-ʿUqūd* (Madrid 1998), 229; Khalilieh, *Islamic Maritime Law*, 46; S. Assaf, *Texts and Studies in Jewish History* (in Hebrew) (Jerusalem 1946), 133; TS 16.54, l. 31, a Hebrew letter describes a Jew who held this position as "the treasurer and the great (commander of the ship) [*ha-gizbar ve-ha-gadol*]"; M. Gil, *In the Kingdom of Ishmael: Texts from the Cairo Geniza* (in Hebrew) (Tel Aviv 1997), 4: 149 [647], Gottheil and Worrell, 36, l. 24 (*kātib mawrida*, literal translation is "registrar of cargo"). Regarding bills of lading see: Burzulī, *Jāmiʿ Masāʾil al-Aḥkām*, 3: 88 (*iqrār* or *taṣdīq*); S. D. Goitein, *Letters of Medieval Jewish Traders* (Princeton 1973), 274, 333–334 [77], TS NS J 300; Gil, *In the Kingdom of Ishmael*, 2: 369 [132], TS 12.282, l. 11; 2: 599 [204], TS 12.325, l. 14 (*ruqāʿ al-ḥaml*); 2: 606 [207], TS 12.291, l. 16; 2: 616 [211], TS 10 J 11, f. 17, ll. 8, 10; 2: 763 [256], Mosseri II 188, l. 13; 2: 911 [299], TS Arabic 51.87, c, l. 17; 3: 27 [311], ENA 4100, f. 29, l. 19; 3: 162 [353], TS K 25.250*v*., l. 5; 3: 187 [360], TS AS 151.154*v*., l. 1; 3: 200 [364], TS 16.263, l. 14; 3: 233 [370], TS 8 J 16, f. 31, l. 13 (*risālat ḥaml*); 3: 384 [409], TS 12.362, l. 10 (*taʿabiyat al-matāʿ*); 3: 520 [454], ENA 1822A, f. 28, l. 15; 3: 528 [458], Bodl. MS Heb. c 28, f. 34, l. 29; 3: 850 [559], TS 10 J 31, f. 8, l. 10; 4: 149 [647], Gottheil and Worrell, 36, l. 18; 4: 618 [808], TS 13 J 17, f. 7, l. 24; 4: 619 [809], John Rylands Library (unidentified), a bill of lading dated to 1050 deals with a delivery of 113 *dīnār*s to Nahray Ibn Nissīm and Jacob Ibn Ismāʿīl al-Andalusī. Mariners around the Indian Ocean and Arab Sea call the bill of lading as *saṭmī* or *shaṭmī* (an Indian word). See TS 18 J 2, f. 14, l. 18–20: "(18) I verified this from the *shaṭmī* (*saṭmī*) of the ship, which was kept by (19) Shaykh Makī Ibn Abū al-Hawl, for memos in the (20) ship"; TS NS J 5, l. 50; R. B. Serjeant, 'Maritime Customary Law off the Arabian Coasts', in M. Mollat ed.,

a ship carrying grain cargo from Sicily to al-Mahdiyya (in Tunisia). Upon weighing anchor, she encountered a violent gale and rough seas and had to jettison part of her grain cargo and return to Sicily, where the consignors discovered that the remaining grain had been drenched, diminishing its value. Did the damage done to the grain occur before the jettison or afterwards? How were its owners to be compensated? Abū Muḥammad Ibn Abū Zayd (310–386 A.H./922–996 C.E.) ruled:

> Those who jettisoned their goods became shareholders with those whose goods remained on board but suffered damage. The price for the owners of the damaged goods is calculated [as if they were] unspoiled, based on the market prices at the port from which they were shipped. Thus, their joint ownership of those [goods] is proportional to the price of the jettisoned goods. The price of the unspoiled goods should be reckoned on the basis of the market prices at the port from which they were shipped, as we have mentioned; the damage to the goods shall be considered as if it affected all shippers on board. This [rule is applied] as long as the goods were sound at the time of jettison and the damage occurred after they were cast overboard. However, if the damage befell goods prior to jettison, their value is based on their imperfect state in Sicily.[28]

When the loss and damage to goods arose from the act of jettison itself, that loss must be shared by all interested parties engaged in the maritime venture. However, shippers whose goods got wet and spoiled prior to the act of jettison could not claim compensation unless the damage resulted from the seamen's negligence, tort, and misconduct.[29]

Sociétés et compagnies de commerce en orient et dans l'océan indien (Paris 1970), 195–207, 204–205. With reference to the scribe's function and role on board medieval European ships in the Mediterranean arena, see: J. V. Murat, 'L'écrivain de navire en Méditerranée au XIVe siècle', *Rives Méditerranéennes* (2002): 1–16, URL: http://journals.openedition.org/rives/82 (last accessed 20 January 2021); E. Sohmer Tai, 'Held to Account: Medieval Scribes at Sea', *Mediterranean Studies*, 25 (2017): 164–188. As for the historical origins of the European bill of lading, see E. Bensa, *The Early History of Bills of Lading* (Genoa 1925), 6–10.

[28] Ṭāher ed., 'Akriyat al-Sufun', 35; Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 239–240; Wansharīsī, *Al-Miʿyār*, 8: 299.

[29] Ṭāher ed., 'Akriyat al-Sufun', 43; Saḥnūn Ibn Saʿīd al-Tanūkhī, *Al-Mudawwana al-Kubrā* (Cairo 1905), 4: 494–495.

Commercial Commodities and Personal Belongings

Personal effects were generally exempt from being averaged. Most jurists excluded private possessions and capital assets—gold, silver, luggage, or even a deposit that a passenger might carry—unless intended for commercial purposes.[30] In that case, the passenger had to notify the ship's scribe of the sum (gold or silver) prior to departure, and he would register it in the cargo book (*shāmil*).[31] If the ship master, crew, or any ordinary passenger threw his own or another's possessions overboard, the thrower was solely held liable for the loss sustained. The loss, great or small, was that of the owner or thrower of the article rather than of the merchant, since private possessions were excluded from the rules of commerce.[32] An alternative rule excluded capital assets from contribution, regardless of whether they were meant for a passenger's commercial transactions or for private expenses such as in the performance of *ḥajj* (pilgrimage).[33]

Yet, a third line of reasoning included capital assets in the General Average contribution. However, only a few Mālikī scholars of the ninth and tenth centuries subscribed to such reasoning, in echo of their

[30] Ṭāher ed., 'Akriyat al-Sufun', 31: "There is no difference of opinion between Mālik and his fellow jurists concerning goods that a cargo owner acquired for his private possession. No matter what the object, be it a black slave (*ʿabd*), a captive, a jewel that the shipper had crafted, a precious stone that he bought for his family, a slave, a weapon bought for his own private property, or a *Qurʾān* that he had illuminated for his own possession – this entire category of possessions is not taken into account in calculating the value of the jettisoned cargo". Identical opinions of other jurists are repeatedly mentioned on pp. 31, 33, 36 of the same treatise; Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 236, 240; Ibn Rushd, *Fatāwā*, 1: 1191–1193; Burzulī, *Jāmiʿ Masāʾil al-Aḥkām*, 3: 643; Wansharīsī, *Al-Miʿyār*, 8: 311–312; Shammākhī, *Al-Īḍāḥ*, 3: 610. Whatever the owner of the vessel purchased for commercial purposes would be included in the accounting in the same way as the property of other merchants aboard.

[31] Ṭāher ed., 'Akriyat al-Sufun', 37; Qarāfī, *Al-Dhakhīra*, 5: 487; Burzulī, *Jāmiʿ Masāʾil al-Aḥkām*, 3: 644; Wansharīsī, *Al-Miʿyār*, 9: 115–116; Gil, *In the Kingdom of Ishmael*, 2: 634 [217], TS Arabic 18 (1).101, l. 12 (*al-sharanbal*); 4: 21 [614], ENA NS 18, f. 35*v*., l. 22; p. 436 [745], INA D 55, f. 14*v*., l. 20.

[32] Ṭāher ed., 'Akriyat al-Sufun', 31.

[33] Ṭāher ed., 'Akriyat al-Sufun', 32, 33; Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 237; Ibn Rushd, *Masāʾil*, 2: 1051; Burzulī, *Jāmiʿ Masāʾil al-Aḥkām*, 3: 643.

Byzantine counterparts.[34] For example, Alexandrian jurist Aḥmad Ibn Muyassar (d. 309 A.H./921 C.E.) ruled: "Goods and private belongings – whether acquired for commercial purposes or personal usage, irrespective of whether they were in a context of a lease or without – all fall under an individual category. They are partners in the saved cargoes and jetsam …".[35]

Assessment of General Average

Sharing forfeitures among all traders, the ill-fated, whose goods were damaged in the course of saving a vessel in distress, and the fortunate ones, whose shipments remained intact, was the most common principle of contribution. All shippers were bound by law to contribute proportionately to the value of the jetsam and of the unharmed goods.[36] Fortunate merchants whose cargo remained safe could not band together in an attempt to evade financial commitments to others. Thus, those whose cargo remained intact could not become each other's 'partners' to the exclusion of those who suffered losses.[37] While the matter

[34] Ṭāher ed., 'Akriyat al-Sufun', 32–33; A. L. Udovitch, 'An Eleventh Century Islamic Treatise on the Law of the Sea', *Annales Islamologiques*, 27 (1993): 37–54, 50–51; Khalilieh, *Admiralty and Maritime Laws*, 158–159.

[35] Ṭāher ed., 'Akriyat al-Sufun', 32; Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 236; Qarāfī, *Al-Dhakhīra*, 5: 487; Burzulī, *Jāmiʿ Masāʾil al-Aḥkām*, 3: 642–643; Wansharīsī, *Al-Miʿyār*, 8: 298.

[36] Ṭāher ed., 'Akriyat al-Sufun', 30–31, 32, 34–35: "Neither Mālik nor Ibn al-Qāsim nor any Mālikī authority, those of Medīna and those of Miṣr (Egypt), argue that everything thrown from the vessel should be deducted from the goods remaining on the vessel. [The value of] the jettisoned goods should be divided by [the value of] the remaining merchandise—be it a quarter or a third. Those whose goods remained safe are to pay proportionately for those whose goods were jettisoned"; Goitein, *Letters*, 180–181: "Now, my lord, exercise your usual circumspection—may I never be deprived of you and never miss your favours – and examine with the light of God, the exalted, the case of those fifty sacks of pepper. Divide what has been salvaged in proper proportion between him and me. Originally thirty-five sacks were mine and fifteen his. So divide the remainder accordingly and explain everything clearly." See Bodl. MS Heb. d 66, f. 66*v*, ll. 4–8. This lawsuit was brought before a Jewish court in Fusṭāṭ (Old Cairo) by Joseph Lebdī against Abū Yaʿqūb al-Ḥakīn. A copy of the court decision was sent to the representative of merchants in the port city of ʿAden.

[37] Ṭāher ed., 'Akriyat al-Sufun', 34.

of who is responsible for compensation is now clear, the matter of how commercial commodities and private possessions were to be valued remains unsettled. Was it according to the price of purchase or value at the port of origin, the place of jettison, or the port of debarkation?

Various customary principles existed in Islamic jurisprudence regarding the determination of the monetary value of jetsam in relation to the cargo that remained safe. The two cardinal factors were place and time. Jurists debated four methods for evaluating jettisoned merchandise in relation to place. According to the first method:

> The price of the jettisoned goods that is due to their owner is based on the amount he actually paid where these goods were loaded onto the vessel. However, this only applies if no price change occurred in the market for the goods. If, however, the market has changed, going either up or down, then the purchase price of the goods is ignored, and consideration is given to the [current] value of the goods. Be they foodstuffs, textiles, raw materials, slaves or any other commercial commodity, the price is calculated as of the moment they were taken on board.[38]

The second method used the value of the goods at their place of purchase, applied to cases in which the goods were bought from one specific place. However, if they were purchased from different places, the assessment had to be based on current prices at the port of embarkation.[39] The third method arrived at valuation according to the place of jettison; jurists undoubtedly referring to the nearest coastal or inland markets where such commodities were traded.[40] The fourth method attributed value according to the current price of the merchandise at the

[38] Ṭāher ed., 'Akriyat al-Sufun', 31, 34–36; Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 238; Abū al-Walīd Muḥammad Ibn Aḥmad Ibn Rushd al-Qurṭubī, *Al-Bayān wa'l-Taḥṣīl wa'l-Sharḥ wa'l-Tawjīh wa'l-Taʿlīl fī Masāʾil al-Mustakhraja* (Beirut 1984), 9: 87; Abū Isḥāq Ibrāhım Ibn Ḥasan al-Rafīʿ, *Muʿīn al-Ḥukkām ʿalā al-Qaḍāyā wa'l-Aḥkām* (Beirut 1989), 2: 527; Burzulī, *Jāmiʿ Masāʾil al-Aḥkām*, 3: 655; Wansharīsī, *Al-Miʿyār*, 8: 311–312; Udovitch, 'Eleventh Century Islamic Treatise', 49–50.

[39] Ṭāher ed., 'Akriyat al-Sufun', 32–34; Ibn Rushd, *Al-Bayān wa'l-Taḥṣīl*, 9: 85–86; Burzulī, *Jāmiʿ Masāʾil al-Aḥkām*, 3: 655; Udovitch, 'Eleventh Century Islamic Treatise', 50.

[40] Ṭāher ed., 'Akriyat al-Sufun', 34, 36; Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 238–240; Udovitch, 'Eleventh Century Islamic Treatise', 50.

destination port,[41] an approach favoured by only a small group of jurists. The great majority of jurists maintained that the goods' value should be based on current prices at the port of origin. As Abū Bakr Ibn ʿAbd al-Raḥmān (d. 432 A.H./1040 C.E.) stated, in calculating the monetary value of jettisoned merchandise, taxes paid at the point of embarkation were always excluded. However, port dues, usually payable by a lessor, were excluded from the calculation of General Average.[42]

Less controversial was the principle of time in determining the value of the jetsam. Should it be evaluated according to the time it was purchased or when it was loaded on board? This question raised an additional one: How should jettisoned articles be evaluated if not purchased at the same time? To resolve these questions, Muslim jurists opined that the time of purchase was irrelevant, jettisoned merchandise had to be evaluated on the basis of current market prices: "Differences in times (of purchase) are the same as [the differences] in towns. For example, if someone were to make the purchase a year ago, and the other a month ago, goods will be reckoned as if he made the purchase a month ago".[43] If items were loaded at different locations, however, their value had to be based on the market prices "on the day of embarkation rather than the day of purchase".[44] This leads us to infer that the criterion for evaluating the jettisoned goods was market prices at the port and on the day of embarkation rather than any other place or time.

Shipping Charges

The nature of the contract of carriage required that carriers deliver consignments to their destinations in the same state as received at the port of origin. Shipping charges had to be paid upon a vessel's arrival and the safe delivery of her cargo. This requirement led to a key problem as to

[41] Ṭāher ed., 'Akriyat al-Sufun', 31; Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 238; Burzulī, *Jāmiʿ Masāʾil al-Aḥkām*, 3: 655; Udovitch, 'Eleventh Century Islamic Treatise', 50.

[42] Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 238: "The customs duty paid on goods is not included, and none of our scholars discussed it since this is an official duty and there is no reimbursement".

[43] Ṭāher ed., 'Akriyat al-Sufun', 34; Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 238; Ibn Rushd, *Al-Bayān wa'l-Taḥṣīl*, 9: 85–87.

[44] Ṭāher ed., 'Akriyat al-Sufun', 30; Qarāfī, *Al-Furūq*, 4: 9–10; Burzulī, *Jāmiʿ Masāʾil al-Aḥkām*, 3: 655; Wansharīsī, *Al-Miʿyār*, 8: 312.

whether and how to include freight charges in a General Average calculation when some goods had been damaged or jettisoned during the voyage. That is to say, should the cost of shipping be reduced in proportion to the value of goods sacrificed for the common safety? If so, how were parties to the contract to calculate this deduction from freight for contribution?

Where jetsam was recovered but lost half of its value, other shippers were to contribute proportionately to recompense for the lost value of the ill-fated shipper's goods, provided he paid both the freight charges for his own remaining goods and for the salvager's labour. The freight charges would not normally be subject to contribution, because they were generally conditioned upon arrival of the goods (*ʿalā al-balāgh*)[45]; a shipper whose goods were jettisoned and could not be saved had the right not to pay any freight charges for them.[46] However, freight was due for all goods that did arrive safely (*pro rata itineris*). In cases where the shipper had fully or partially paid the shipping charges in advance, the lessor would have to include all or a proportion of the advance towards a General Average contribution upon a loss of goods.[47]

Valuation of the Vessel for Contribution

Muslim jurists around the Mediterranean disputed the legal status of the carrying vessel in the computation of General Average. Muḥammad Ibn ʿAbd al-Ḥakam (d. 268 A.H./881 C.E.) decreed:

> Our companions agreed upon the exclusion of the vessel from the principles pertaining to jettisoning, except for our ʿIrāqī companions who contend that the vessel and the vessel's slaves, tackle, and contents – be they for commercial purposes or private possessions – are included in the calculation of the General Average. Saḥnūn reiterated in the book of Ḥabīb

[45] Ṭāher ed., 'Akriyat al-Sufun', 26; Saḥnūn, *Al-Mudawwana*, 4: 493; Ibn Ḥazm, *Al-Muḥallā*, 7: 26; ʿAlī Ibn Yaḥyā al-Jazīrī, *Al-Maqṣad al-Maḥmūd fī Talkhīṣ al-ʿUqūd* (Madrid 1998), 228; Abū al-Qāsim ʿUbayd Allāh Ibn al-Ḥusayn Ibn al-Ḥasan Ibn al-Jallāb al-Baṣrī, *Al-Tafrīʿ* (Beirut 1987), 2: 188.

[46] Ṭāher ed., 'Akriyat al-Sufun', 35; Gil, *In the Kingdom of Ishmael*, 2: 527 [180], TS 10 J 19, f. 19, ll. 23–24.

[47] Ṭāher ed., 'Akriyat al-Sufun', 35; Noble, *Principles of Islamic Maritime Law*, 234–235.

> Ibn Naṣr [201-287 A.H./816-900 C.E.] ... that the vessel's servants are included in the calculation in terms of the value of the jetsam.[48]

Thus neither the ship nor her tackle was generally subject to contribution when assessing the value of jettisoned merchandise. This view's advocates held:

> It is inappropriate to include the ship within the calculations and principles of the General Average, since this situation is similar to a camel that lacked strength in the middle of the way and could not carry the load thereafter. The camel master, in this case, is allowed to throw the load off the camel without being bound to remunerate the owner of the merchandise.[49]

In other words, when a lifeboat, masts, ropes, and another ship's tackle were thrown overboard, they would not be included in the General Average calculus.[50] If someone jettisoned the vessel's tackle, he alone would be held liable for the losses incurred.[51]

However, a second group did include the ship and her rigging in assessing losses regardless of the motive and the circumstances that forced the ship master, crew, and passengers to jettison items. This argument suggests that if the ship was either damaged or wrecked, but the goods were saved, they were subject to contribution towards the ship's loss. Likewise, if the cargo was lost but the ship saved, the latter would be included within the principle of General Average. These rules could be implemented when local custom allowed the inclusion of a commercial ship under the category of the General Average.[52] The last group of jurists declared the vessel is subject to contribution if it was established that her owner had jeopardized his vessel either by sailing in known tempest conditions or ignoring regulations against overloading. In both

[48] Ṭāher ed., 'Akriyat al-Sufun', 36; Qarāfī, *Al-Furūq*, 4:10; Nuwayrī, *Al-Ilmām*, 2: 244.

[49] Qarāfī, *Al-Furūq*, 4: 10.

[50] Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 236; Qarāfī, *Al-Furūq*, 4: 10.

[51] Ṭāher ed., 'Akriyat al-Sufun', 52.

[52] Ṭāher ed., 'Akriyat al-Sufun', 35, 36; Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 235, 237–240; Ibn Rushd, *Al-Bayān wa'l-Taḥṣīl*, 8: 498; Qarāfī, *Al-Dhakhīra*, 5: 487; idem, *Al-Furūq*, 4: 10; Nuwayrī, *Al-Ilmām*, 2: 244; Burzulī, *Jāmiʿ Masāʾil al-Aḥkām*, 3: 657; Wansharīsī, *Al-Miʿyār*, 8: 299, 306.

situations, the ship-owner had to reimburse the merchants for the damage they incurred if they protested against his irresponsible decisions.[53]

Piracy, a formidable threat to merchantmen, preoccupied jurists throughout history. It gave rise to various scenarios in calculating General Average, with their accompanying legal implications. Jettisoning all or part of a ship's contents would make her a less tempting target for pirates, as well as lighter and more manoeuvrable, improving chances for escaping attack. Jettison resulting from such circumstances fell under the rules of General Average.

An illustrative incident took place towards the end of the first half of the twelfth century C.E. A business letter from the Adenese mercantile representative Maḍmūn ibn Ḥasan, addressed to the Tunisian merchant Abraham ben Yījū, describes the arrival of imports from India, the jettisoning of part of the cargo *en route* to avoid a piratical raid, and the resultant distribution of losses among the parties engaged in the venture. An excerpt of the letter reads:

> I, your servant, took notice (6) of what you – may God preserve your well-being! – wrote (7) concerning the shipment of 15 *bahār*s[54] of standard (*rasmī* – legal or official) iron (8) and seven *bahār*s of belts (?) of eggs. This is to inform you that the sailors (9) jettisoned some of the ʿeggs' when the pirates (*al-surrāq*) [approached] (10) the gulf Fam al-Khawr (alt. translation: on the mouth of the gulf). But I, your servant, already distributed it (the loss) (11) according to the freight of the ship, and I collected this for you.[55]

From this account it can be inferred that in the classical Islamic world, piracy undisputedly gave rise to claims for General Average—pro rata—contributions from all parties concerned where the remedy was deemed applicable.[56] Muslim jurists decreed that General Average rules should not be applied unless the sacrifice in question was made, or the expenditure incurred, to ensure the common safety and common good, to save ship, cargo, crew, and passengers. Shipmasters, shippers and their agents,

[53] Ṭāher ed., 'Akriyat al-Sufun', 50; Qāḍī ʿIyāḍ, *Madhāhib al-Ḥukkām*, 235.

[54] A *bahār* (also *buhār*) is a weight unit equivalent to 300 pounds, see Goitein and Friedman, *India Traders*, 172.

[55] Goitein and Friedman, *India Traders*, 370.

[56] Khalilieh, *Admiralty and Maritime Laws*, 150–151.

and passengers on board, who acted upon their combined reasoning to escape potentially dire consequences, shared the understanding that they were all bound by law to contribute proportionately to the value of jettisoned goods.

The most intricate legal cases, often requiring proceedings *in rem* (suing the ship as an independent legal entity) involved instances where pirates managed to capture a ship and either seize the cargo but free the ship, capture the vessel but release its cargo, or seize the craft and all her contents. Claims were brought to jurists by those who lost properties of a greater relative value than did others sailing on board the same ship.

Islamic jurisprudence distinguished between cases where the ship is recovered from pirates and those in which a shipper redeems his own goods. In the first situation, the travellers were obliged to contribute to a General Average, while in the second each cargo owner had to personally bear the entire expense of redeeming his commodities. Islamic jurisprudence further ruled that if pirates captured cargo but released the vessel, the cargo owners were to pay freight costs, nonetheless.[57] These principles applied under the condition that the threat of pirates could not have been anticipated, and that the ship sailed in 'the known trunk routes', without deviating from course.[58]

Muslim jurists also addressed the assessment of a vessel's value for contribution to General Average. From the Islamic legal viewpoint, not all equipment and rigging of a vessel were subject to contribution, rather only the value of tackle, essential to manoeuvring the vessel, factored into its calculation. The vessel itself would be valued as if intended for sale in its current condition. A ninth century formula for composing a ship's sales contract by al-Ṭaḥāwī (239–321 A.H./852–933 C.E.)

[57] Abū ʿAbd Allāh Muḥammad al-Anṣārī al-Raṣṣāʿ, *Sharḥ Ḥudūd Ibn ʿArafa* (Beirut 1993), 2: 525.

[58] Jazīrī, *Al-Maqṣad al-Maḥmūd*, 224–225; Raṣṣāʿ, *Sharḥ Ḥudūd Ibn ʿArafa*, 2: 525; Wansharīsī, *Al-Miʿyār*, 8: 302. It is worth mentioning that jurists distinguish between piracy on inland waterways and at sea. For attacks on rivers, a ship's master has to bring his claims before the sultan, who is in charge of providing security and protection to vessels sailing on rivers and waterways within his jurisdiction. Therefore, if a master fails to bring the case to the local authorities, he must personally indemnify the shipper for his loss. Ibn Rushd, *Al-Bayān wa'l-Taḥṣīl*, 9: 63–64; S. M. Stern, 'Three Petitions of the Fāṭimīd Period', *Oriens*, 15 (1962): 172–209, 172–178, TS Arabic Box 42, f. 158; G. Khan, *Arabic Legal and Administrative Documents in the Cambridge Genizah Collections* (Cambridge 1993), 330–331 [74], TS Arabic 42.158.

required the parties to indicate all the items essential to the ship's ability to navigate on rivers or on the high seas.[59] Sales contracts generally included a full description of the ship's type, external and internal structures, and equipment, including tackle, cables, ropes, baskets, nautical instruments, anchors, cabins, sails, masts, and levels.[60]

To assess damage sustained through natural and manmade dangers and the vessel's actual current value, learned jurists instructed judges to appoint experts in maritime technology and shipbuilding to examine a ship prior to repair. That is to say, the contributory value of the vessel was based upon her actual condition on arrival at the port of final debarkation.[61] Once judicially mandated procedures were completed, if a ship-owner was required to contribute to a General Average, he had to pay the merchants in cash, or, if he did not have the money available, they would (involuntarily) become co-shareholders in the vessel. The owner could also offer his vessel for sale and thereby compensate them. Classical Islamic law also obliged a merchant to reimburse the ship-owner if the vessel was wrecked. If the former could not meet his obligation, the ship-owner would have a lien upon the merchant's preserved and salvaged goods for General Average. The ship-owner was entitled to detain a quantity of cargo, not in excess of his entitlement, until receiving payment.[62]

[59] Aḥmad Ibn Muḥammad al-Ṭaḥāwī, *Al-Shurūṭ al-Ṣaghīr* (Baghdad 1992), 1: 266–267; Ṭāher ed., 'Akriyat al-Sufun', 52: Ibn Abī Zamanīn (324–399 A.H./936–1008 C.E.) states: "All equipment of the ship, such as the *qārib* (boat), ropes, or cooking pots, are the responsibility of the owner of the vessel. This ruling is advocated by some of our senior jurists who excluded these items in their judicial paradigm. However, the ship-owner is not held responsible for the masts and the external parts of the vessel which are needed to propel the vessel".

[60] Qarāfī, *Al-Dhakhīra*, 1: 355; Muḥammad Ibn al-Qāsim al-Nuwayrī, *Nihāyat al-Arab fī Funūn al-Adab* (Cairo 1964), part 9: 30–34; Muḥammad Ibn Aḥmad al-Minhājī, *Jawāhir al-ʿUqūd wa-Muʿīn al-Quḍā wa'l-Muwaqqiʿīn wa'l-Shuhūd* (Cairo 1955), 1: 95.

[61] Ṭāher ed., 'Akriyat al-Sufun', 45–46; Muḥammad Ibn Aḥmad Ibn Bassām al-Muḥtasib, *Nihāyat al-Rutba fī Ṭalab al-Ḥisba* (Baghdad 1968), 148, 157; Burzulī, *Jāmiʿ Masāʾil al-Aḥkām*, 3:89; Kindī, *Al-Muṣannaf*, 21: 153–154: "The judge is required to assign two trustworthy experts of good repute who are acquainted with ships building and deficiencies [*fa'l yaʾmur al-ḥākim ʿadlayn min ahli al-maʿrifa bi-dhālik al-ʿamal wa-ʿuyūb al-qawārib*]". The decision reached by two trustworthy experts with experience in maritime incidents is mandatory and must be accepted by the disputants.

[62] Ibn Rushd, *Al-Bayān wa'l-Taḥṣīl*, 10: 547–548.

Another question arises as to where the assessment for contribution was to take place. Was the vessel to be valued in her current condition based on her value at the port of origin, place of jettison, her next port of call, or final destination? The great majority tended to estimate a ship's monetary value on the basis of her current condition and value at her port of origin, i.e. the homeport. However, whether the parties involved were required to accept the highest or lowest valuation of the vessel is unclear, although if the ship were sold at auction jurists would normally consider the highest offer.

Summary and Conclusion

In Islamic jurisprudence, at least two requirements had to be met in order to apply the rules of General Average losses at sea: (a) the loss had to result from a common imminent peril: the craft herself, cargo, and humans—crew, shippers, and passengers—had to be at risk; and (b) the sacrifice was made voluntarily and in good faith for the common safety and interest of the ship and her contents in the face of immediate danger.

As a rule, an advance consultation among the crew and shippers prior to any act of jettison was required if time permitted. The heaviest goods were to be jettisoned first as long as they were accessible, regardless of their value. The vast majority of Muslim jurists excluded personal effects from being averaged. As for the assessment of jetsam, scholars generated four distinct rules regarding the determination of value for assessing the jettisoned cargo: according to its value at its place of origin, at the port of loading and embarkation, at the port nearest the jettison point, or at the port of destination. The great majority of jurists were inclined to assess jetsam on the basis of value at the port of origin on the day of sailing. However, they excluded port dues and customs payable by the lessors and lessees from the assessment of sacrifices, since, once paid, Islamic law treats them as non-refundable official duties.

Muslim jurists held different opinions regarding the vessel's legal status in relation to rules of assessing General Average. One opinion excluded her by comparing her with a pack animal. A second opinion included both ship and tackle. Yet a third opinion stated that if it were established that a master jeopardized his vessel by knowingly sailing in adverse circumstances or ignored regulations against overloading, the ship would subject to contribution. Most jurists contended that if a ship were ruled as subject to contribution, then her value would be based on estimates of her value at the homeport.

Clearly, jurists maintained conflicting legal perspectives over issues regarding the rules of General Average loss and contribution. Prior to the nineteenth-century Ottoman *tanzimat*,[63] there were no uniform statutory rules codified in the Abode of Islam, unlike those instituted in the Justinianic *Digest* and the Rhodian Sea Law. As early as the second century A.H./eighth century C.E., Islamic jurists belonging to the same law school offered controversial legal opinions in particular cases or incidents. These differences in legal opinion within the same law school can be attributed to differences in customary local practice around the Mediterranean Sea, merchants' customary practices, and the individual legal reasoning of jurists. In addition, the migration of scholars from the Islamic East to the Maghrib (West), may have led to the transformation of legal elements of Eastern origins, resulting in new precedents. When jurists encountered unprecedented matters, they frequently simply applied land laws to maritime affairs. On many occasions they issued rulings solely on the basis of analogy (*qiyās*); a ship was compared to a camel, and carriage by sea to carriage on land, as established in the prefatory statement of Chapter 2 of the *Kitāb Akriyat al-Sufun*.[64]

Most importantly, since Islam's birth, merchants played a vital role in the economy of the newly founded state as unprecedented commercial rules governing local, regional, and long-distance trade were established. Many principles of the Islamic 'Merchant Law' were first laid down by merchants and their agents, rather than by jurists, judges, and ruling authorities. Central and provincial governments played a very marginal role in creating and systemizing commercial practices, even though they were highly concerned with creating hospitable environments for facilitating trade locally, regionally, and globally. In the absence of written commercial contracts and explicit stipulations, jurists and judges would normally resort to merchants' customs and practices.[65]

[63] D. G. Nadolski, 'Ottoman and Secular Civil Law', *International Journal of Middle East Studies*, 8/4 (1977): 517–543; Z. Toprak, 'From Plurality to Unity: Codification and Jurisprudence in the Late Ottoman Empire', in A. Frangoudaki and Ç. Keyder eds., *Ways to Modernity in Greece and Turkey: Encounters with Europe, 1850–1950* (London 2007), 26–39.

[64] Ṭāher ed., 'Akriyat al-Sufun', 16; Khalilieh, *Admiralty and Maritime Laws*, 252; idem, *Islamic Maritime Law*, 50–51.

[65] Muḥammad Ibn ʿUmar, the author of *Kitāb Akriyat al-Sufun*, states: "If hiring arrangements are to be admitted solely on the basis of analogy (*qiyās*), most will be invalidated; [only recourse to custom makes them licit]." Ṭāher ed., 'Akriyat al-Sufun', 15; Khalilieh, *Admiralty and Maritime Laws*, 277–278.

As jurists belonging to the same school of law, but based in different ports, could differ in opinion, how could their rulings be honoured and binding? Was a shipper or merchant entitled to sue other parties in various ports and schools as he pleased knowing a *qāḍī*'s past rulings, expecting that he would adjudicate in his favour? On principle, misunderstandings between the merchants/shippers and ship-owners should be adjudicated at their destination, "if the judge is reasonably just", regardless of his affiliation with a particular school of law. However, if the judicial authorities at the port of disembarkation were known as unjust, the lawsuit could take place elsewhere within the Abode of Islam. When a dispute arose among merchants only, they had to concur on where to resolve their disagreement. Judicial proceedings between a plaintiff and defendant take place in nearly any port or place, providing that the *qāḍī* was impartial: the port of loading or discharge, or the nearest port if the ship was underway, or the defendant's or plaintiff's place of residence, or the locale where the contract was signed.[66]

If Muslim disputants sailed for a foreign country, any lawsuit should be brought before a Muslim *qāḍī*. In the absence of an Islamic judicial authority in a particular port, Muslim disputants may appeal to any Islamic court elsewhere. If a dispute arose between a Muslim party and an alien on board a ship that was heading for her home port or to another foreign country, it ought to be adjudicated at the destination, or as stipulated within any active treaties.[67]

Irrespective of merchants' sectarian affiliations, Muslim merchants saw themselves as part of the global Muslim nation (*ummah*). Therefore, disputants had to comply with a judge's decision. His legal authority was duly respected and executed within and outside the Abode of Islam. Only appeal to a higher court could overturn judicial decisions of lower courts. Notably, unlike laws on land, the laws and customs governing maritime commerce invariably unified merchants and other

[66] Khalilieh, *Admiralty and Maritime Laws*, 179–180; idem, *Islamic Maritime Law*, 150–151.

[67] H. S. Khalilieh, *Islamic Law of the Sea: Freedom of Navigation and Passage Rights in Islamic Thought* (Cambridge 2019), 73; Burzulī, *Jāmiʿ Masāʾil al-Aḥkām*, 3: 654–655; Wansharīsī, *Al-Miʿyār*, 8: 304–305; M. Amari, *I Diplomi Arabi del Regio Archivio Fiorentino* (Florence 1863), 127, Article 5 of the Ḥafṣīd-Pisan peace treaty of 800/1397); *ibid*, 141, Article 5 of the 817/1414 Ḥafṣīd-Pisan peace treaty); *ibid*, 155, Article 5 of the 824/1421 multilateral peace treaty concluded between the Ḥafṣīds, Pisa, and Florence.

parties engaged in shipping, despite differences across time and regions. Merchants, shippers, ship-owners, and seamen shared more common interests than those engaging in commerce on land. The basic principles governing *qirāḍ* (*commenda*), partnership, salvage, collision, and carriage of goods by water were shared among all engaging in overseas trade and shipping.[68] The rules and practices of General Average are but one example of how the *lex mercatoria Islamica* influenced merchant law across the Mediterranean from as early as the second century A.H./eighth century C.E.

[68] On these issues see also the contribution of Ron Harris in this volume.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

Principles and Developments of General Average: Statutory and Contractual Loss Allowances from the *Lex Rhodia* to the Early Modern Mediterranean

Andrea Addobbati

Average and Contribution: An Etymological Question

'Average' is a word that has made life difficult for historians of language. Commonly used with the meaning of 'mathematical mean', the English word is derived from a formally identical term belonging to the narrower

The research for this essay was conducted thanks to funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and Innovation Programme ERC Grant agreement No. 724544: *AveTransRisk—Average—Transaction Costs and Risk Management during the First Globalization (Sixteenth-Eighteenth Centuries)*. I would like to thank Maria Fusaro, Jake Dyble, Daphne Penna, Guido Rossi and Monica Chojnacka for their comments and suggestions to earlier versions of this text. Translated by Monica Chojnacka.

A. Addobbati (✉)
University of Pisa, Pisa, Italy
e-mail: andrea.addobbati@unipi.it

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_6

semantic field of maritime law.[1] Its etymology, however, remains a mystery. Lexicographers of the past have proposed numerous hypotheses, taking into consideration any word belonging to disparate linguistic stocks with whatever morphological and semantic affinities that may indicate a shared origin.[2] Thus, we have the Germanic word *haverey*, the French *havre*, and the English *haven*, whose first meaning is 'port', the high-German word *vara*, which stands for 'risk', and even the Persian *avare*, which translates to the English 'ledger'. According to the most recent dictionaries, only a couple of possibilities remain: some scholars lean towards an Arabic origin, suggesting a derivation from the noun *awār*, that is 'damage', from which is derived *awārīya*, or 'damaged goods'[3]; while others—and this is the most accepted hypothesis—point towards a Byzantine origin, but with certain disagreements as to the exact source of the word. Some believe the term derives from the Greek word *βάρος*, or 'weight', plus the alpha privative. In this manner one would refer to lightening a ship's load, the immediate aim of the jettison, which is the first paradigmatic form of Average as described by the so-called *Lex Rhodia*, and acknowledged by the *Digest*.[4] Others call attention to the adjective *βαρεῖα* (pronounced [*varìa*]), the abbreviated form of *Συμβολὴ βαρεῖα* (sumbolè bareîa), or 'onerous contribution'.[5] However, none

[1] The English term, meaning damages compensated by contribution, can be found from the end of the fifteenth century. It begins to be used to indicate the mathematical mean from the middle of the eighteenth century, see *The Oxford Dictionary of English Etymology*, *ad vocem*.

[2] Quintin Weytsen leaned towards a Greco-Byzantine derivation. See Q. Weitsen, *Tractatus de Avariis. Cum observationibus Simonis a Leeuwen et Matthei de Vicq* (Amsterdam: H. & T. Boom 1672), 2–4, and note 2 of de Vicq. Others, like Marcus Zuerius van Boxhorn (Boxhornius) or Johan Locken (Loccenius), imagined a French or German origin. J. Loccenii, *De jure maritimo et navali* (Stockholm: J. Janssonii 1652), 208–209; J. Marquardi, *De iure mercatorum et commerciorum* (Frankfurt: Th. & M. Götzii 1662), 390.

[3] G. B. Pellegrini, *Gli arabismi nelle lingue neolatine con speciale riguardo all'Italia* (Brescia 1972), 95. See also the contribution of Hassan Khalilieh in this volume.

[4] A. Ghiselli, 'Greco abarês, neogreco abaros e l'italiano «avaria»', *Paideia*, VIII (1953): 365–368; and A. Castellani, 'Capitoli d'un'introduzione alla grammatica storica italiana. IV: Mode settentrionali e parole d'oltremare', *Studi Linguistici Italiani*, 14 (1988): 165–172.

[5] H. and R. Kahane, 'Italo-byzantine etymologies, v. Avaria «average»', *Bollettino dell'atlante linguistico mediterraneo*, I (1959): 210–214. Two different forms likely derived from the term *sumbolè bareîa*: (1) *bareîa* [*varìa*]; the variation *avaria*, with the agglutination

of the most ancient texts that lay the groundwork of the elusive law of Rhodians actually use the word *avaria*, but rather several terms all meaning 'contribution' (*contributio*, *συμβολή* – *simvoli* – *συνεισφορά* – *syneisforá*). This is the case in Book 14, Title 2 of the *Digest* (sixth century), taken from the legal *Sententiae* of several jurists (third century CE), but also from the *Nόμος Ροδίων Ναυτικός*, a compilation of Rhodian, or pseudo-Rhodian, law from the seventh century, and finally from the *Basilica*, a late re-elaboration of Roman law from the ninth century.[6] We must wait for the first vernacular compilations of maritime laws to discover the earliest uses of the term.

If the dating were not controversial, the *Ordinamenta et consuetudo maris* from the city of Trani would allow us to locate the use of the expression '*andare a varea*' (in the sense of 'to be refunded by contribution') in the year 1063.[7] Nonetheless, it is fairly certain that the text of the *Ordinamenta* that has come down to us is a translation into Italian from the fourteenth or fifteenth century. Therefore the first evidence of the term Average (in Italian: *avaria*) can be found in the Genoese notarial acts collected by Renée Doehard which date to the end of the twelfth century,[8] while the first certain appearance in a normative text is that of the *Statuta ed ordinamenta super navis* from Venice in 1255. Here,

of the article's vowel, widely used in Genoa, where we have evidence from the thirteenth century, and in the Tyrrhenian region; (2) *barèa* [*varèa*], the variation *varèa*, widely used in the Adriatic region, found in Venice from 1255 (but see Footnote 8), and then Zadar, Split and Trani from the beginning of the fourteenth century, and Ancona from the middle of the same century. There are some interesting thoughts on the topic in A. Lefebvre D'Ovidio, 'La contribuzione alle avarie comuni dal diritto romano all'ordinanza del 1681', *Rivista del diritto della navigazione*, 1 (1935): 130–140.

[6] J. M. Pardessus, *Collection des lois maritimes antérieurs au XVIIIe siècle*, 6 vols (Paris: Imprimerie royale 1828–1845), I: 179–208 (Basilici), 231–260 (Νόμος ροδίων ναυτικός). For the most recent editions of these texts, see the contribution of Daphne Penna in this volume.

[7] Pardessus, *Collection des lois maritimes*, V: 237–247; E. Besta, 'Legislazione e scienza giuridica dalla caduta dell'impero romano al secolo decimoquarto', in P. Del Giudice ed., *Storia del diritto italiano* (Milan 1925), 666–669.

[8] The first of the deeds collected by Doehard containing the term *avaria* is dated March 7, 1200: «Ego Iacobus de Palma confiteor me accepisse [...] cannas duecentas unam de telis de Rens, et constant cum dricto consulum et rova et avariis lib. octuaginta septem den. ian.». Many examples follow this, all with the meaning of 'added expense for maritime taxes.' In Provence and Catalonia the first uses of the term are in, respectively, 1227 and 1258, while in Florence the term is in common use from the end of the thirteenth century. Castellani, 'Capitoli d'un'introduzione', 168–169.

chapter LXXXIX, in the section 'De dapnis', establishes that '…si alicui navi vel ligno evenerit quod Deus avertat, de arboribus antenis & timonibus dapnum, illud (non) sit in varea. Et hoc intelligimus in nave, & omni ligno de milliaris CC. & inde supra'.[9]

By the sixteenth century, the word seems to have been adopted by the majority of European languages, long after the reception of the juridical principle asserted by the *Digest*, and in each language with an identical ambivalence of meaning, since the word *avaria* can mean both

[9] "If any ship or boat should suffer damage, God forbid, to the masts, yards and rudders, that damage should (not) be average. And this we mean for ships and for every boat of two hundred *migliara* and more". *Capitolare nauticum pro emporio veneto anni MCCLV Duce Raynerio Zeno. Ex antiquo codice quirino*, in P. Canciani ed., *Barbarorum leges antiquae cum notis et glossariis*, 5 vols (Venice: Coletium et Rossi 1781–1792), V: 341–366, in part. ch. lxxxviii, 359. The codex that contains the *Statuta* of Doge Raniero Zeno, conserved in the *Querini* library in Venice, highlights a correction. The grammatical particle 'non' seems to have been added later, and the commentators note that the correction is congruent with the rule's evolution, in that it departs from a broad concept of indemnification for the damage, the same that is stated by the *Νόμος ροδίων ναυτικός* only to encounter a series of increasing limitations later. I will simply observe that, in the *Statuta*, the term *varea* actually appears this one time with the meaning of contribution, and that more often, when the damage must be shared, the obligation is said to be «de comuni avere navis, & de ipsa nave» (of the owning common stock of the ship and of the ship itself); or «de comune avere ipsius navis, & eciam de ipsa nave, secondum usum» (of the owning common stock of the same ship and also of the ship itself, according to custom), etc. On the other hand, regarding damages verified «occaxione cazandi aliquem navem» (hunting for some ships), it is also said that «dapnum illud sit in avariam averis ipsius navis, & eciam de nave secundum usum» (that damage is in average of the owning common stock of the same ship and also of the ship according to custom), or furthermore, where the contribution of the passengers (*peregrini*) is discussed, the compensation for damaged the masts, yards and rudders is once again excluded, «quia dampnum illud in auria esse non debet, ut superior continetur» (because that damage does not have to be average, as stated above). This specification alone is enough to shed doubt on the conjectures of the commentators regarding the correction mentioned above, but besides this, it is worth noting the use of *avaria* (or *auria*) in place of *varea*, which is the most common version from here on in the Veneto and Adriatic areas, and the substantive equivalent of the expressions «de comune avere navis» (of the ship's owning common stock) and «in avariam averis ipsius navis» (in average of the owning common stock of the same ship). The form *varea*, with the tonic stress on 'e', was consolidated only later, and Castellani theorizes that it is a matter of hypercorrection in a notarial environment, where the etymon of the term was unknown, and thus the suffix 'ìa' was considered a vulgarism, to be amended in a Latinized form—'ea'. On this Castellani, 'Capitoli d'un'introduzione', 172.

the damage itself as well as its remedy, that is, the compensation by contribution, as prescribed by law.[10]

The Only Greek Law Handed Down to Us in Living Form?

Shifting from words to actual objects, it must be said that there is a general consensus on the antiquity of the law of Average. Some even believe that its tradition has remained substantially faithful to the original source, to the point of claiming that the redistribution of the economic damage of the jettison—the first case of General Average (GA)—is 'the only Greek law that has come to the modern world in living form'.[11]

[10] These are exactly the two different meanings on which the most valid etymological hypotheses rest. We should add that one can find an analogous polysemy in another word of uncertain etymology, which has a key role in the conceptual set-up of the law: the word *causa*. The Romanist Yan Thomas, and more recently Giorgio Agamben, have explored this unsolvable semantic bipolarity: *causa* is the process but also its grounding; it is the suit, or the trial, but also what gives it rise; see G. Agamben, *Karman. Breve trattato sull'azione, la colpa e il gesto* (Turin 2017), 9–15.

[11] The principle of the collective distribution of individual damage upon certain conditions is certainly very ancient, and is known also beyond the Greco-Latin region. Something similar to general damage was practiced in 3000 BC by Chinese merchants who traded along the Yangtze river, and the damage inflicted by desert pillagers on the caravan trade were distributed equally among all of the merchants according to a practice legalized by Hammurabi's Code around 1760 BC, in M. Fitzmaurice, N. Martinez, I. Arroyo and E. Belja eds., *The IMLI on International Maritime Law*, vol. II: *Shipping Law* (Oxford 2016), 580. Nonetheless, what the *Lex Rhodia* was exactly remains a mystery. According to an interesting hypothesis of Purpura, the good reputation swirling around the *Lex Rhodia* from Antiquity lies in practice of renouncing the violent appropriation of the stranger's goods on the basis of ancient laws of reprisal (*sylai*), and of the plunder of shipwrecks (*ius naufragi*), a renunciation carried out to encourage trade. This renunciation, which allowed the Rhodians to acquire a reputation as a hospitable people, was nonetheless compensated for by the imposition of customs duties on the goods that entered the port. These constituted, so to say, the generative nucleus of a corpus of laws that was wider than the few fragments included in the *Digest*, all dealing with the aspects of greater interest to classical jurists and the compilers of Justinian, namely the matters connected to the jettison, the Average and the *derelictio*, that is the shipwreck rules. The only exception is D 14.2.9, which specifically concerns the fiscal exemption of shipwrecks. In brief, according to Purpura, the principle of distributive justice that governed the distribution of customs obligations could be applied also to the redistribution of the damage suffered for sake all. «Just as the fiscal charges were distributed upon all those loading their goods on a ship arrived at Rhodes and subjected to customs, so the same modes to levy could to be applied for refunding the damages. Merchants who had suffered an

In reality, we have no direct testimony about the famous *lex Rhodia de Iactu*, which we know in the form of the version in the *Digest*, where first and foremost one finds a disavowal of the mutual obligation between shippers, which became a central element of subsequent legislation. The reasons for the denial are exquisitely technical and formal. Roman law only acknowledges obligations arising from a contract or an offence, and since the contribution of jettison has to be framed within the system, the law can find no better solution than tracing it back to the *locatio conductio* contract.[12] In practice, nothing changes, but by attributing the *ex locato* action to the injured shipper against the *magister navi*, and the *ex conducto* action to the *magister navi* for recourse against the other shippers, it is possible to provide a logical explanation for a situation where two shippers not bound by any contract are nevertheless obliged to provide compensation on the one hand and to be compensated on the other.[13]

Regardless of the legal technique chosen, the fundamental device which has been thought unchanged over time and which is axiomatic for the modern theory of Average is the crucial distinction between General

Average could seek refuge in the port of Rhodes, where, being exempt from the customs duties and having the opportunity to repair their vessels in shipyards, they could unload the damaged goods, evaluate losses, and redistribute them among them». On this see: G. Purpura, 'Ius naufragii, sylai e lex Rhodia. Genesi delle consuetudini marittime mediterranee', *Annali dell'Università di Palermo*, 47 (2002): 275–292. Whatever the original law of the Rhodians was, the *Lex Rhodia* incorporated in the Roman system is not a law in the strict sense, but rather a collection of practices and rules of custom developed in the eastern Mediterranean during the Hellenic period. The term "law" here should be understood in the sense of having an obligatory significance among merchants, independent of the formal recognition of constitutive power, as, more generally, one might speak of *lex mercatoria*.

[12] On these issues see also the contributions of Ron Harris and Daphne Penna in this volume.

[13] E. Chevreau, 'La lex Rhodia de iactu: un exemple de la réception d'une institution étrangère dans le droit romain', *Legal History Review*, 73 (2005): 67–80. Chevreau recognizes the reception of the legal principle, even as he refutes the technical reception. The problem of the reception of the *Lex Rhodia* into the Roman system has long been debated. For an exhaustive bibliography on the subject, in addition to Chavreau, see J. J. Aubert, 'Commerce', in D. Johnston ed., *The Cambridge Companion to Roman Law* (Cambridge 2015), 213–245; Id., 'Dealing with the Abyss: The Nature and Purpose of the Rhodian Sea-Law on Jettison (*Lex Rhodia de iactu*, D 14.2) and the Making of Justinian's Digest', in J. Cairns and P. Du Plessis eds., *Beyond dogmatics: Law and Society in the Roman World* (Edinburgh 2007), 157–172.

Average which is 'voluntary', corresponding to the damage consciously sought out with the intention of avoiding a more serious one; and Particular Average (PA) which is accidental, that is the damage from an irresistible or unforeseeable external cause. The first was declared indemnifiable for reasons of equity, the other type falls to the owner of the damaged goods on account of the maxim *casum sentit dominum* (accident is felt by the owner). The entire Rhodian law seems to rest on this distinction between human causality and external randomness. The principle is never formulated in the abstract, but can be deduced from the rules governing the various concrete cases, starting with D. 14.2.1, extracted from the *Sententiae* of the jurist Paulus, who writes that 'the Rhodian law provides that if cargo has been jettisoned in order to lighten a ship, the sacrifice for the common good must be made good by common contribution'.[14]

The *Digest* considers the most frequent cases: the jettison of goods, the sacrifice of ship's equipment, and the ransom paid to pirates, without ever generalizing the principle. It would nevertheless have allowed the jurisprudence to include by analogy among GA all damages and all extraordinary and unforeseen expenses voluntarily borne for sake of all.[15]

[14] "Lege Rhoda cavetur, ut, si levandae navis gratia iactus mercium factus est, omnium contributione sarciatur quod pro omnibus datum sit": *The Digest of Justinian*, translation edited by A. Watson, 5 vols (Philadephia 1985), I: 419. From excavations conducted on the site of Rhodes' ancient port in 1995, there emerged a column that can be dated to between the second and third centuries. It bears in an epigraph a fragment of the *Sententiae* of Julius Paulus, reported in the *Digest* 14.2, with slight variations; on this G. Marcou, 'Nomos Rhodion Nautikos e la scoperta a Rodi di una colonna di marmo con l'iscrizione di Paolo (D 14 2)', in *Studi in onore di Lefebvre d'Ovidio* (Milan 1995), 609–640, 614. This finding re-opens the discussion around dating of the *Sententiae*, which tradition places at the end of the third century. Purpura and Liebs nonetheless suspect that this may be an unintentional falsehood, a commemorative monument dating to the Italian Occupation of the 1920s and '30s, in this case the question remains why the dictate departed from tradition; on this see Purpura, 'Ius naufragii, sylai e lex Rhodia', 275–292; I. Ruggiero, 'Immagini di Ius receptum nelle Pauli Sententiae', in *Studi in onore di Remo Martini*, 3 vols (Milan 2009), III: 425–470; D. Liebs, 'D. 14,2,1 Auf einer Inschrift aus Rhodos', *Iuris Antiqui Historia, An International Journal on Ancient Law*, 10 (2018): 161–167.

[15] Mattheus De Vicq observed that the *lex Rhodia* is primarily concerned with jettison, while in the Christian era compensation by contribution was expanded upon by commentators, like Azo of Bologna, François Douaren e Arnold Vinnius, "ad quodvis damnum, quomodocunque factum, modo navis levandae, servandae, comunisve periculi removendi causa" (to any damage, howsoever done, for the purpose of relieving the ship, preserving it and removing the cause of common danger); see Weitsen, *Tractatus de Avariis*, 14.

It is a tradition that developed over time, spreading across the Mediterranean and then throughout Europe, through the statutory rules of the Italian maritime republics, the fundamental text of the *Consolat de Mar* of the Catalans and Aragonese (fourteenth century), the *Rôles d'Oléron* supposedly promulgated by Eleonor of Aquitaine towards the end of the thirteenth century,[16] and the compilation of Wisby (fourteenth century), to mention only the most important texts. The voluntary nature of the damage as a theoretical principle finally reached a clear formulation in the first juridical treatise dedicated to Averages by the Zeelander jurist Quintin Weytsen. In the *Tractatus de Avariis*, published posthumously in Flemish in 1617, and later in Latin in the influential Leiden edition of 1651, Weytsen begins his explanation with a definition that was destined to become the classic one: 'Average is the common contribution of the things found in the ship in order to make good the damage voluntarily inflicted upon items, whether belonging to merchants or the ship, to the end that lives, ship, and the remaining goods should escape unscathed'.[17]

The principle was made a general one, and thus applicable even beyond the context of maritime transport. A classic example is the house that is torn down to contain a fire and prevent the flames from reaching the surrounding homes. The analogic extension of the law was the work of the Medieval school of Glossators. In particular, it appears that the *Glossa Ordinaria*, attributed to Accursius, played a decisive role, on this see: B. Zalewski, 'Creative interpretation of *lex Rhodia de iactu* in the legal doctrine of ius commune', *Krytyka Prawa*, 8 (2016): 173–191; see also J. H. A. Lokin, F. Brandsma and C. Jansen, *Roman-Frisian Law of the 17th and 18th Century* (Berlin 2003), 252–268, where the authors discuss in detail the case of Sierck Lieuwes versus the States of Friesland by reference to the opinions of medieval jurists on the *lex Rhodia de iactu*.

[16] Some scholars have recently suggested backdating the compilation to the twelfth century. An account written in 1329 claimed that Richard I of England (1189–1199) was the author of the laws and had written them at Oléron on his way back from the Holy Land, but this seems highly unlikely. E. Frankot, *'Of Laws of Ships and Shipmen'. Medieval Maritime Law and Its Practice in Urban Northern Europe* (Edinburgh 2012), 12. On the Rolls of Oléron see also: T. J. Runyan, 'The Rolls of Oleron and the Admiralty Court in Fourteenth Century England', *The American Journal of Legal History*, 19 (1975): 95–111.

[17] "Avaria est communis contributio rerum in navi repertarum, ad sarciendum damnum bonis quorundam mercatorum sive nauclerorum eum in finem sponte illatum, ut vita, navis, & reliqua bona salva evadant": Weytsen, *Tractatus de Avariis*, 1. For a profile of the author's biography and the editorial developments see J. N. Paquot, *Memoires pour servir a l'histoire litteraire des dix-sept Provinces des Pays-Bas, de la Principauté de Liege, et de quelques contrées voisines*, 18 vols (Leuven: Imprimerie academique 1762), X: 296–298; see also: D. De ruysscher, 'How Normative were Merchant Guidebooks? Of Customs, Practices, and… Good Advice (Antwerp, Sixteenth Century)', in H. Pihlajamäki,

Voluntary, Involuntary, and Mixed Acts

Average is the contribution that should compensate the damage *sponte illatum* (voluntarily inflicted). The problem is that while 'voluntary' is a straightforward idea in the abstract, it is much more complicated to establish concretely in a situation at sea. When adverse sea conditions are taken into account, any damage suffered can be described as a sacrifice, due, at least in part, to a desire to save the ship. Regardless of the extent one attributes to free will, intention, that is the faculty of conscious decisions, was already the main criterion of liability as early as Aristotle, who in the third book of the *Nichomachean Ethics* considered it essential to distinguish voluntary acts from involuntary ones, because, he says, from the firsts comes praise and blame, while from the latter there comes, if anything, forgiveness, and sometimes pity. Human acts are involuntary when they are caused by force (or even ignorance). In this case, one does not act, but suffers on account of an external cause, 'for example', says Aristotle, 'when a ship's master is carried somewhere by the weather, or by people who have him in their power'.[18] The voluntary act, on the other hand, presupposes choice and deliberation, critical but somewhat mysterious moments, which morally frame the action. Before examining the fundamentals of the voluntary act, however, the philosopher warns: 'But there is some doubt about actions done through fear of a worse alternative, or for some noble object'.[19] In fact, some actions from a certain point of view may appear forced, and from another free; and if there is a paradigmatic example of this mixed genre, it is precisely the action of jettison. 'A somewhat similar case', Aristotle writes, 'is when cargo is jettisoned in a storm; apart from circumstances, no one voluntarily throws away his property, but to save his own life and that of his shipmates; any sane man would do so. Acts of this kind, then, are "mixed" or composite; but they approximate rather to the voluntary class. For at the actual time when they are done they are chosen or willed; and the end or motive of

A. Cordes, S. Dauchy, D. De ruysscher eds., *Understanding the Sources of Early Modern and Modern Commercial Law: Courts, Statutes, Contracts, and Legal Scholarship* (Leiden 2018), 145–165; and G. P. Dreijer and O. Vervaart, 'Een tractaet van avarien – 1617', *Pro Memorie*, 21 (2019): 37–41.

[18] Aristotle, *The Nichomachean Ethics*, with an English translation by H. Rackham (Cambridge, MA 1956), III [1110a], 117.

[19] Ibid.

an act varies with the occasion, so that the terms "voluntary" and "involuntary"', he concludes, "should be used with reference to the time of action".[20]

In the ideal world of abstract norms, the debt of voluntary sacrifice is transferred immediately and proportionally on those who have taken advantage of it, but in the real world some time elapses between the moment in which one acts, and the legal recognition of the precise obligations that arise from that same action. This would not be a problem were it not for the fact that the evidence used to establish a posteriori the historical truth of what happened at sea is necessarily imperfect, to the point that a solemn oath is necessary to make it acceptable. First of all there is the damage itself, but it is an ambiguous proof because in itself it tells us nothing about its causes: a breach in the hull may be due to the sea that pushed the ship onto the rocks without the men being able to do anything about it, but it can also be explained by the decision to beach the ship to prevent a storm from sinking it, and this is at any rate assuming the damage was truly accidental and not incurred through inexperience, negligence or malice. Choice is the main criterion that would make it possible to distinguish a General Average from a Particular one. But choice has the defect of being an internal act, at best only hinted at by the concrete evidence. The reconstruction of the factual circumstances and the range of reasonably expected behaviours can lead to moral certainty that a voluntary act has actually taken place. Nonetheless, it is necessarily an act of faith, because in the end the only custodian of truth is the master who makes the damage declaration.

Thus, the boundary between human causality and external randomness, and consequently between General and Particular Average, remain an elusive one in practice, despite all principles and distinctions of law. While it is a boundary that should be maintained in order to strengthen the seafarers' sense of responsibility and to limit so-called moral hazard, it must always be borne in mind that it is an artificial and uncertain distinction. It should also be noted, however, that a certain tolerance of abuses works as a tacit incentive to sail, especially in a context of extreme insecurity and uncertainty. Once again, when faced with a choice between fraud and the cessation of any maritime enterprise, the lesser evil is preferred, at least as long as improvements in managing the uncertainty of navigation

[20] *Ivi*, 119.

do not allow for a more rigorous approach. Until this point was reached, it was likely very easy, without impartial witnesses, to replace worn-out equipment by inventing fantastical storms from which it had been possible to escape only thanks to the sacrifice of masts, sails, riggings, ropes, and tenders.

Damage resulting from wear and tear and the natural deterioration of materials is expressly excluded from the *Digest*, but it took very little for these losses to be transferred the shoulders of the freighters. At the end of the eighteenth century, an era in which tolerance for such abuses was no longer justifiable, the Livornese lawyer Ascanio Baldasseroni could joke that, with their fraudulent depositions, masters and ship-owners repeated the miracle of the legendary 'galley of Salamis, preserved for more than a thousand years by the Athenians, from the time of Theseus to the reign of Ptolemy Philadelphus, which was always claimed to be the same as that with which Theseus, victor over the Minotaur, has used to return to the island of Crete'.[21]

The Scandal of *Νόμος Ροδίων Ναυτικός*

What in the time of Baldasseroni was considered an abuse, in more ancient and uncertain times represented standard practice, admitted and legitimized by custom. For this we need to go back about a thousand years, to the time of Emperor Leo III the Isaurian (r.717–741AD). A compilation of rules that in that period regulated navigation in the eastern Mediterranean, the *Νόμος Ροδίων Ναυτικός*, demonstrates that the distinction between voluntary and involuntary damage, which is supposedly central to the *Lex Rhodia de iactu*, was dropped for several centuries, at least in that part of the world. The pseudo-Rhodian law of the *Νόμος*, in fact,

[21] A. Baldasseroni, *Trattato delle assicurazioni marittime*, 4 vols (Florence: Tipografia Bonducciana 1803 [Ist ed. 1786]), IV: 14–15. The famous paradox of Theseus' ship originates from a passage in Plutarch's *Parallel Lives*. The problem, which continues to challenge philosophical thought, is to know whether the change in matter implies a change in identity, or whether identity is preserved along with form; on this S. Ferret, *Le Bateau de Thésée. Le problème de l'identité à travers le temps* (Paris 1996); D. Wiggins, *Sameness and Substance Renewed* (Cambridge 2012). Worth noting that the reference to Ptolemy Philadelphus is a mistake by Baldasseroni, as it should instead be Demetrius of Phalerum (c. 350–280 BCE).

prescribes contribution for any damage to the ship and the cargo, with culpable or malicious damage as the only exceptions.[22]

The fact that for several centuries the voluntary nature of the damage was no longer perceived as a crucial aspect—at least in much of the Mediterranean—is also suggested by medieval Italian statutes, particularly from those of the Adriatic area. As these statutes provide scanty provisions regarding Averages, they must presuppose a broader body of legislation, i.e. the *Νόμος*, which the statutory rules were intended to qualify.[23] This is the case, for example, for the laws of Trani, which restore the principle of voluntary action, but only for damage relating to the ship's masts, rigging, sails, and other equipment. It is also the case for the Venetian statutes, where, without prejudicing the general stipulations of the *Νόμος*, certain limitations were established over time, starting with the exclusion in 1255 of the 'damage to masts, yards and rudders'. In the same way, an order of 1428, at the time of the doge Francesco Foscari, limits contribution to two cases, jettison and robbery: 'Average shall not be given except in the case of jettison or theft, i.e. only for such things as are under deck and recorded in the clerk's book'.[24]

The Adriatic tradition is said to have finally surrendered to the completeness of the Catalan *Llibre del Consolat de Mar* in the late fifteenth century, thus remedying the departure from the principles established by the *Lex Rhodia*. However, in lieu of new and more in-depth

[22] In Ch. IX of the *Νόμος* jettison is defined in analogous terms to those in *Digest*, but the consultation of the ship's company is required, and grounds for compensation is extended to the damages caused by piracy: "In the same way if goods are carried away from enemies or by robbers or … together with the belongings of sailors, these too are to come into the calculation and contribute on the same principle". Ch. X excludes compensation for culpable or malicious damage, and explains further: "If there is no default either of the captain or crew or merchant, and a loss or shipwreck occurs, what is saved of the ship and cargo is to come into contribution". The last paragraph of Ch. IX, which Ashburner suspects was added at a later time, takes into consideration contribution from a contractual point of view: "If there is an agreement for sharing in gain, after everything on board ship and the ship itself have been brought into contribution, let every man be liable for the loss which has occurred in proportion to his share of the gain": W. Ashburner, *Νόμος Ροδίων Ναυτικός. The Rhodian Sea-Law* (Oxford 1909), 87–91, and more generally the introduction, especially ccli–cclxxxv.

[23] Lefebvre D'Ovidio, 'La contribuzione alle avarie comuni', 70.

[24] "Vareas dari non debere nisi in casu jacturae, aut predae, videlicet de his rebus tantummodo quae sub coperta essent, et in libro scribani scriptae": Pardessus, *Collection des lois maritimes*, V: 64, K. Nehlsen-von Stryk, *L'assicurazione marittima a Venezia nel XV secolo* (Rome 1988), 222–223.

research which might allow for firmer conclusions, there are indications that the tradition of *Νόμος* actually continued to influence Venetian-Adriatic practice well beyond the date of its presumed demise.[25] Even the idea of deviation from the main line of the Roman law, in my opinion, is not totally convincing. Since contribution is the common remedy for those voluntary damages covered by GA and for involuntary covered by mutual insurance, we might consider the possibility that two legal institutions initially led a confused co-existence, from which later emerged two concepts clearly distinguished from one another.

The Catalan *Germinamento*

The co-existence of two types of contribution, one arising directly from law and the other contractual, is demonstrated by various chapters of the Catalan *Llibre del Consolat de Mar*, although interpreters from at least the seventeenth century have misunderstood their meaning. Chapter 192 of the *Consolat* considers accidental and unavoidable damage, and stipulates contribution for that damage in situations where there had been

[25] Another worthy subject is the question of the *Νόμος*'s influence on Islamic maritime law. The discovery of a treaty of maritime law of the Maliki School of the XI century (*Kitāb Akriyat al-Sufun wal- Nizā' bayna Ahlihā*) in the library of the monastery of San Lorenzo de El Escorial has allowed Hassan Khalilieh to make a comparison with the *Νόμος*, see H. S. Khalilieh, *Admirality and Maritime Laws in the Mediterranean Sea (ca. 800–1050). The Kitāb Akriyat al-Sufun vis-à-vis the Nomos Rhodion Nautikos* (Leiden-Boston 2006). There are certainly many points of contact, but also differences, starting with the discipline of General Average. Muslim jurists recognize the jettison and compensation by contribution for the damage suffered for the sake of all, but most of these exclude personal, non-mercantile property, and the ship and its equipment, while the sailors are deemed not responsible for any non-malicious damage to the cargo. 'Muhammad Ibn 'Abd al-Hakam states: "Our fellow jurists unanimously agree about the exclusion of a vessel from the regulations of jettison. By contrast, our 'Irāqī fellow jurists contend that the vessel, the vessel's slaves, tackle, and all on board that are acquired for commercial purposes or private possessions, all of these enter into the value of jettison", see *Ivi*, 307–308. The Average contribution thus pertains only to the owners of the cargo. Merchants and seafarers have a distinct legal status, and after all the treatise is merely a type of handbook to coordinate maritime law with religious law, for the use and consumption of freighters, as can be seen from the title, which literally means: *Treatise Concerning the Leasing of Ships*. The irresponsibility of the carriers regarding the damages suffered by the merchandise required a strict surveillance on the part of the merchants, so that under these circumstances the need to accompany the merchandise during the journey was particularly urgent. J. L. Goldberg, *Trade and Institutions in the Medieval Mediterranean: The Geniza Merchants and their Business World* (Cambridge 2012), 106–113.

prior agreement to that effect between the master of the ship and the merchants. The commitment to mutualise this risk can be made before the start of the voyage (Ch. 229), but also in the face of an impending danger, and even in the absence of the merchants, provided that the master receives the consent of the boatswain and other officers of the ship. This is the fateful institution of the *germinamento*, which has given rise to many misunderstandings for various reasons, but above all because the legal significance of the 'consultation', or on-deck deliberation foreseen in Ch. 192 has been confused with that of the other consultation which the *Consolat* required (though not strictly) before proceeding with the voluntary jettison as outlined in Ch. 97.

If the master judged that there was no other option than lightening the ship by jettison, the *Consolat* demanded that he make his resolution known to the concerned parties and obtain their consent (which was nevertheless not binding). The master was required to declare the following: 'Merchants, if we do not jettison, we are in great hazard and are faced with losing both persons and property, and everything on board, and, if you merchants desire the jettison, with the will of God we would be able to save persons and a great part of our property; and if we do not jettison, we are faced with losing ourselves and all our property'.[26] Unless the master had lost his wits, it was unlikely that a merchant with sense would want to oppose this decision. However, the *Consolat*, while requiring the consultation of the merchants and other bureaucratic formalities—which in this case is called a plain or regular jettison—in Ch. 281 admits that in the event of imminent danger it is rather rare that one has the opportunity to consult the interested parties, or even to write

[26] "Senyors mercaders si nos nons alleuiam, som a gran ventura e a gran condicio de perdre les persones e lo hauer e tot quant açi ha. E si vosaltres senyors mercaders voleu que alleuiassem, ab la voluntat de Deu porem estorçre les persones e gran partida del haver e si nos non gitam serem a ventura e a condicio de perdre a nos meteixos e tot lo hauer": E. Moliné y Brasés ed., *Les costums marítimes de Barcelona universalment conegudes per Llibre del Consolat de mar* (Barcelona 1914), Ch. 99, available at: http://www.cervantesvirtual.com/obra-visor/les-costums-maritimes-de-barcelona-universalment-conegudes-per-llibre-del-consolat-de-mar--0/html/ff398bb2-82b1-11df-acc7-002185ce6064_322.html (last accessed 24 December 2021). On Catalan commerce and the *Consolat*: M. Del Treppo, 'Assicurazioni e commercio internazionale a Barcellona, 1428–1429', *Rivista Storica Italiana*, 69 (1957): 508–541, and 70 (1958): 44–81; Id., *I mercanti catalani e l'espansione della corona d'Aragona nel secolo XV* (Naples 1972), E. Maccioni, *Il Consolato del mare di Barcellona. Tribunale e corporazione di mercanti, 1394–1462* (Rome 2019).

down a list of the goods that ended up in the sea. In the midst of a storm, everyone throws whatever comes to hand first, and it is therefore not possible to deny the validity of 'irregular' jettisons, which are referred to as 'quasi-shipwrecks'. The 'irregular' was in fact the normal procedure, so much so that at the end of the seventeenth century, the famous Genoese jurist Carlo Targa could report having encountered 'just four or five' cases of regular jettison 'in sixty years of maritime practice', 'and in each of these cases there was criticism that the case appeared excessively premeditated'.[27] Since the terrifying force of a storm remained the same between the fourteenth and seventeenth centuries, while there was, if anything, an improvement in shipbuilding and nautical science, it is logical to think that the regular jettison was unlikely even at the time of the *Consolat*'s compilation. In spite of this, in 1588 the reformers of the Genoese Statutes felt the need to burden the procedure with additional formalities, impossible to carry out and bordering on the ridiculous, such as the election on board of a sort of 'Magistracy of the Jettison' formed by 'three consuls, two of whom are chosen from among the officers and one from the said merchants'.[28]

In conclusion, the obligation to consult those on board the ship remained, although it was clearly regularly disregarded. The persistence of a norm which was completely unenforceable in practice, can only be explained by the need to make the voluntary nature of sacrifice communicable and transparent. Levin Goldschmidt, who interpreted General Average as a 'company against danger', identified the consultation of the ship's board as the genesis of this contract.[29] I rather believe, along with Antonio Lefebvre d'Ovidio, that the consultation and all the other

[27] C. Targa, *Ponderationi sopra la contrattatione marittima* (Genoa: A.M. Scionico 1692), 253.

[28] "…et, non existentibus mercatoribus, duo sint ex officialibus prorae et unus ex officialibus puppis: qui tres consules, auctoritatem habeant projicendi in mare quid eis necessarium videbitur pro residui salvatione" (…and there being no merchants, two shall be of the bow officers, and one of the stern officers. And these three consuls shall have authority to cast into the sea what they think necessary to save the rest): Statuto 16 dic. 1588, Lib. IV, cap. XVI, *De jactu et forma in eo servanda*, in Pardessus, *Collection des lois maritimes*, IV: 530.

[29] L. Goldschmidt, 'Lex Rhodia und Agermanament der Shiffsrat: Studie zur Geschichte und Dogmatik des Europäischen Seerechts', *Zeitschrifts für gesamte Handelsrecht* (ZHR), 35 (1889): 37–90, 321–395 (Italian translation by G. Carnazza) (Catania: Martinez 1890).

prescriptions regarding the regular jettison do not speak to the contractual nature of General Average, but should be interpreted instead as 'a formal act, carried out as proof of the necessity of the act, against those who may wish to contest the jettison'; and, furthermore, as a 'guarantee of the opportunity for the jettison itself', in case there were doubts regarding the master's expertise.[30]

If the consultation preceding the jettison essentially performs a probative role, that is, serving to make explicit the voluntary nature of sacrifice, the *germinamento* presents contractual features, since it creates a reciprocal obligation that did not exist before, not regarding a voluntary loss but rather an inevitable, and therefore involuntary, one. Ch. 192 of the *Consolat* shows this clearly: 'When any ship or boat has to be beached in bad weather, or in any other circumstances, the vessel's master must say and declare the following, at that point and at that hour to the merchants in the presence of the *scrivano*, the boatswain, and seamen: 'Gentlemen, we cannot hide that we have to beach the ship, and I propose to proceed as follows, that the ship cover the goods, and the goods cover the ship….'.[31] Here we are no longer 'in great hazard', nor must we put hope in the 'will of God'. The force of the sea has taken over, and the master has only one choice left: he can declare that it is 'every man for himself', or he can propose to the merchants to face adversity together, mutually committing to share the damage equally. Here the consent of the merchants, unlike their consent in the consultation that precedes the jettison, is crucial. It is already clear that their absence poses a problem, remediable (up until a certain point) with a legal fiction, but there is no doubt that their consent creates a new bond of mutual obligation. The contractual nature of the obligation is moreover confirmed by the variety of conditions that can be agreed, since it is clear that the obligation can be defined variously to cover different eventualities.

The situation is now clear. The legal obligation that in the Νόμος pertains to any sea risk must cede part of its domain, while the obligation to bear involuntary damage mutually remains subject to the consent

[30] Lefebvre D'Ovidio, 'La contribuzione alle avarie comuni'.

[31] "Nau o leny qui haia a ferir en terra per fortuna o mal temps o per qualsevol altre cas se sia, lo senyor de la nau o leny deu dir e manifestar en aquell punt e en aquella hora als mercaders en oida del scriua e del notxer e dels mariners: senyors, nos poden ascondir que no haiam a ferir en terra, e yo diria en axi: que la nau anas sobre los hauers, e los hauers sobre la nau". *Les costums marítimes de Barcelona*, Ch. 195.

of the interested parties. Yet, when we examine the history of mercantile laws, we find a curious misunderstanding. Here is how, at the beginning of the eighteenth century, the great Giuseppe Casaregi felt that he had to paraphrase and explain the stipulations of Ch.192 in language accessible to his contemporaries: 'When the Master judges that it is needful to beach the ship in order to avoid a greater evil, he is required to give notice of it to Merchants ...'[32] The master 'judges', recognizes the lesser evil, and is still able to warn the merchants of it. Sometime earlier, Carlo Targa, in his *Ponderationi*, was even more explicit: 'This is nothing more than a deliberation made by the Master ... to voluntarily risk a distant danger, and a lesser damage, in order to avoid a closer, worse one...' And further: 'The most frequent case that gives rise to this *Germinamento* is when your cargo is thrown overboard to lighten the ship'.[33] Even before Targa, the Neapolitan Francesco Rocco in *De navibus et naulo* (1655) had acknowledged the right to be compensated for the beaching of a ship, 'ut in cap. Consulat. Maris 192', thus connecting this to the voluntary principle of jettison.[34]

Ch. 192 also provides for the possibility of a unilateral obligation, and it is in the passage in which it is explained that the merchants could agree to cover the damage of the ship without the master reciprocally assuming the same commitment to the cargo, that the specific name of the contract is learned. Merchants, in fact, can allow that 'la nau vaia sobre los havers' (the ship goes over the cargo), although 'lo senyor de la nau no agermanara la nau ab laver' (the shipmaster will not make the ship brother [agermanara] to the cargo).[35] *Agermanar* becomes *germinare* in Italian. Thus Carlo Targa, having confused this 'deliberation' with that of the jettison, can present to us an imaginative etymology, which at least has the advantage of unconsciously returning us to the word's most authentic moral and economic sense. It is possible that the Genoese Targa intuited

[32] *Il Consolato del mare colla spiegazione di Giuseppe Maria Casaregi* (Lucca: Cappuri & Santini 1720), 178. On the same topic, but broader and more involved: G. M. Casaregi, *Discursus legales de commercio*, 4 vols (Venice: Balleoniana 1740), I: disc. XIX, 54–59.

[33] Targa, *Ponderationi*, 316–317.

[34] F. Rocco, *De navibus et naulo. Item de assecurationibus notabilia* (Amsterdam: F. Halma 1708), not. LX, 62.

[35] *Les costums marítimes de Barcelona*, Ch. 195.

that he was tying himself up in knots, but he still felt that he could claim that the «seafaring word *Germinamento*» derived from the «French verb *germiner*» (in actual fact the verb *gérmer*, meaning 'to sprout'). Just as in a tree "the various branches, and the things divided in several parts formally make up *unum germen* [one sprout alone]", in the same way the several interested of a shipping venture make up 'a union and a body, only as far as the interest is concerned, and thus a capital or holding fund, to be then shared out at lira, *soldo and denaro*, in proportion to each one's interest'. He concludes that through the *germinamento*, the relationship among the interested parties changes, and it is 'accidentally reduced to a kind of company'.[36] And he's right: it is in fact a company, more precisely a company of mutual insurance. According to Targa, who does not express a personal opinion but repeats the understanding widespread in the courts, it was a company only 'accidentally', founded not on the consent of the parties, but on the dangerous situation that induces the master to 'voluntarily put himself at risk'.[37] The correct derivation of the term is probably from the Catalan *germà* (in Castilian, *hermano*). This

[36] "…comecché di più rami, e cose distinte in più parti se ne costituisca formalmente *unum germen*, o sia un'unione ed un corpo solo in quanto all'interesse, o sia un capitale e fondo di partecipazione, da ripartirsi poi a lira, soldo e denaro, o sia per rata porzione dell'interesse d'ognuno": Targa, *Ponderationi*, 316–317.

[37] "Di qui è che se la nave restasse ridotta in procinto tale ch'il pericolo maggiore fosse inevitabile, e perciò il minore non potesse più esser appigliato V.G. se si elegesse investire, e la nave investisse da per sé, overo non riuscisse ciò che si elegge, il Germinamento non ha effetto, e non si contribuisce, perché cessa la ragione dell'equità addotta dalla legge". *Ivi*, p. 320. Targa admits that "delle volte", that is occasionally, the *germinamento* can be made in port before departure, as laid out in Ch. 229 of the *Consolat*, but without departing from the equitable principle of the *Lex Rhodia*, because in his view there should be in any case the condition of impending danger, like "quando vi è necessità di partire e vi è dubbietà di corsari, o per altra causa urgente", *Ivi*, 318. It is a pity that the only concrete example that came to his mind did not comply with the condition. Despite this, it was he himself who ruled that, in that case, the damage had to be brought equally in contribution, since it did not consist "di Germinamento proprio, ma improprio, che è piuttosto un concerto mercantile che Germinamento" (!), *Ivi*, 319. Nothing about the *germinamento* is contemplated in the 1681 *Ordonnance de la Marine*, the most influential normative text in the Mediterranean area during the Eighteenth Century. However, it was recalled by Balthazard Emerigon, who, with reference to Targa, posits that the *Germinamento* was an Italian custom quite different from General Average: "The obligation to contribute indefinitely to the common loss is called in Italy *germinamento*, that is, to put in common and together the vessel and the merchandise, *tanquam in unum germen*" (as in one sprout alone): B. Emerigon, *Traité des assurances et contracts à la grosse*, 2 vols (Marseille: J. Mossy 1783), I: 601.

suggests that the pact proposed by the master establishes a circumstantial bond among strangers (or maybe it would be fairer to say, among their property) who are nevertheless all pursuing the same aim: a brotherhood, where all members commit to bearing one another's losses.[38]

Conclusion

According to a strict interpretation of the *Consolat*, General Average and mutual insurance continued to coexist side by side into the late Middle Ages, as in the *Nόμος* but without its confusion. This is to say that, to

[38] The *fraterna*, based on the concept of an undivided heredity among brothers, represented the most common form of mercantile organization, as we know from the studies of medieval Venice by Frederic C. Lane ('Family Partnerships and Joint Ventures', *Journal of Economic History*, 4 [1944]: 178–196). Traces of mutual insurances on a more conventional basis can also be found in normative texts that predate the Consulate. In addition to the *Nόμος*, in a pair of dispositions of the *Synopsis Minor*, a work deriving from the *Basilica*, Pardessus discerned the beginnings of mutual insurance (*Collection des lois maritimes*, I: 203n). We must nonetheless ask ourselves why we should dismiss the notion that something like this had not already been contemplated in more ancient customs. Regarding this, I would like to call attention to D 14.2.2.1, the most obscure and controversial fragment of the *Lex Rhodia*, which addressed the matter of the vessels deterioration, and more broadly the damages produce *by force majeure*: "Si conservatis mercibus deterior facta sit navis aut si quid exarmaverit, nulla facienda est collactio, quia dissimilis earum rerum causa sit, quae navis gratia parentur et earum, pro quibus mercedem aliquis acceperit: nam et si faber incudem aut malleum fregerit, non imputatetur ei qui locaverit opus. Sed si voluntate vectorum vel propter aliquem metum id detrimentum factum sit, hoc ipsum sarciri oportet" (If the ship suffers damage or loses any of its gear and the cargo is unharmed, no contribution is due, because there is a distinction between property relating to the ship and property on which freight is paid; after all, the damage arising when a smith breaks his anvil or hammer would not be charged to the customer who gave him the work. But a loss at sea falls to be made good if it arises from a decision of the cargo-owners or a reaction to some danger). *The Digest of Justinian*, I: 419. In the text there are at least a couple of obscure passages, or at least they are contradictory with respect to the dogmatic framing of General Average. Current commentators have rushed to declare the text corrupted, while in the past the problem turned out a big headache for many jurists who forced themselves to re-establish the original text and render the fragment coherent with their assumptions: Lefebvre D'Ovidio, 'La contribuzione alle avarie comuni', 46–47. Jacques Cujas in particular, and many others after him, found that "vel" extremely annoying, because it seem to put the merchants will and the fear of danger in opposition, as if they were two separate and alternative conditions for claiming damages by contribution; see: J. Cujas, *Observationum et emendationum*, Lib. XXIII, cap. XXXV *Duobus in locis emendatur* § 1. l. 2. D *de leg. Rhod. De jactu*, in *Opera*, pars. I. tom. I (Prato: F. Giachetti 1836), 1069–1071.

limit the most predictable abuses, the *Consolat* established that contribution for involuntary damage was no longer required by customary law, but became a possibility through consent of the parties. It is thus rather interesting that in the modern age the literal interpretation was obliterated by humanistic jurisprudence's sense of system, and that the *germinamento* was in fact absorbed by General Average and made to conform to its logic: '*Germinamento*' writes Domenico Azuni, 'is usually carried out at the time of a jettison designed to lighten the ship and prevent an imminent shipwreck'.[39] If, between the fifteenth and sixteenth centuries, the *germinamento* ended up being amalgamated with the consultation that preceded (or should have preceded) jettison to make clear its voluntary nature, this is because in the meantime a profound restructuring of Mediterranean trade had taken place.[40] This introduced two fundamental changes. Once the legal procedures that guaranteed the fulfilment of contracts were consolidated, it was possible to build networks of trust along commercial routes which obviated the need for merchants to travel with their goods. At same time, while commission trading developed, a new indemnity tool emerged: the modern instrument of premium insurance. This new contract promised to refund losses entirely, and was more efficient than any mutual solution, if only because it allowed for the spread of risk across a number of guarantors—the underwriters of the policies—that was incomparably wider than any consortium of directly interested shippers.[41]

Once the presence of the merchants on board diminished, the consultation lost its meaning, so much so as to make the master who carried it out seem suspect, as Targa noted. Above all, the *germinamento*, in its

[39] D. A. Azuni, *Dizionario ragionato della giurisprudenza mercantile*, 4 vols (Livorno: G. Masi, 1822), *ad vocem* I: 157.

[40] R. S. Lopez, *The Commercial Revolution of the Middle Ages, 950–1350* (Cambridge 1976); S. R. Epstein, *Freedom and Growth: The Rise of States and Markets in Europe, 1300–1750* (London 2000); A. Greif, *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade* (Cambridge 2006).

[41] F. Edler de Roover, 'Early Examples of Marine Insurance', *Journal of Economic History*, 5 (1945): 172–200; L. A. Boiteux, *La fortune de mer: le besoin de securité et les debuts de l'assurance maritime* (Paris 1968); F. Melis, *Origini e sviluppo delle assicurazioni in Italia (secoli XIV–XVI), 1: Le fonti* (Rome 1975); E. Spagnesi, 'Aspetti dell'assicurazione medievale', in *L'assicurazione in Italia fino all'Unità. Saggi storici in onore di Eugenio Artom* (Milan 1975), 3–69; and A. B. Leonard ed., *Marine Insurance. Origins and institutions, 1300–1850* (London 2016).

most original and authentic sense, now appeared problematic from several points of view, since masters would be prompted to take advantage of the uncertain boundary it introduced between voluntary and involuntary damages to seek compensation for both via General Average. After all, it didn't take much to present damages as the consequences of a voluntary sacrifice intended to escape danger. Goods soaked in the hold could be compensated by contribution if, at the point of delivery, it was claimed that the hatches had had to be opened during a storm to throw part of the cargo overboard. Even worn-out equipment which had reached the end of its usefulness, could be replaced in large part at expense of the freighters: it was enough to say that they had broken in a risky manoeuvre made necessary by an impending danger. As Ascanio Baldasseroni noted, without the presence of merchants on board, ship masters discovered the secret of the legendary Ship of Theseus. Modern insurance intervened to counterbalance these dubious practices however, at least when Averages were covered by the policy, and when the practice of insuring ship hull and equipment in addition to the cargo became standard practice. In short, the reorganization of maritime risk management that took place between the late Middle Ages and the early modern age placed the new insurance contract at the centre of the system, sweeping away the mutual company of *germinamento*, but leaving General Average contribution for voluntary damages intact. It was probably a slow process, common to all maritime contexts, the exact dynamics of which are still waiting to be investigated. For now, I will observe that, if it is true that the new sedentary habits of the merchants and the modern insurance contract produced the effects that we suppose, then in theory the number of Averages measured over the long-term, and the ratio between General Averages (voluntary) and Particulars ones (involuntary), should be regarded as two significant indicators of the spread of contractual insurance and the consolidation of the new maritime risk management system.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

The Iberian Experience

The 'Mutualisation' of Maritime Risk in the Crown of Castile, 1300–1550

Ana María Rivera Medina

Risk, especially maritime risk, is based on the existence of danger, namely, natural or anthropogenic phenomena whose form, incidence, and intensity must be described and quantified. Therefore, the chronological succession of events, their interpretation, management, and conflict resolution vary in accordance with a series of factors: local traditions, maritime culture, management instruments, institutions that manage the phenomenon, and the customs or norms deployed in order to address maritime conflict. These factors underpin local peculiarities which have largely been ignored in the study of European economic and social development.

The research for this essay was conducted thanks to funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and Innovation Programme ERC Grant agreement No. 724544: *AveTransRisk—Average—Transaction Costs and Risk Management during the First Globalization (Sixteenth-Eighteenth Centuries)*. Translated by Ruth MacKay.

A. M. R. Medina (✉)
Universidad Nacional de Educación a Distancia, Madrid, Spain
e-mail: arivera@geo.uned.es

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_7

In line with this historiographic and theoretical framework, this essay analyzes the evolution of the 'mutualisation' of maritime risk in some of the territories of the Crown of Castile and how it differs from other European regions, as it evolved from being merely a mutual aid mechanism to becoming a specific type of business. Second, I identify the instruments by which maritime risk was managed, their juridical formulation, and the mechanisms of mutual aid with specific reference to the legal instruments of General Average and jettison.

The Origin of Mutual Aid in Maritime Traffic

The first expression of mutualisation with regard to seafaring activities can be found in the establishment of seafarers' and fishermen brotherhoods or confraternities (*cofradías*) in coastal towns.[1] These were the institutions that best reflected medieval Christian ethics based on brotherly love, though there was criticism and doubt regarding their real contribution to the common good, and even about their Christian spirit. Furthermore, urban communities developed the ideal of civic republicanism on the principles of shared responsibility and equal and mutual relations, which established the bases of mutual aid associations.

These types of organizations spread throughout Europe from the end of the thirteenth century, carrying out tasks through their own specific tribunals which were granted special or exclusive local jurisdictions that higher political powers could not perform with the same efficiency. These

[1] J. I. Erkoreka Gervasio, *Análisis histórico-institucional de las cofradías de mareantes del País Vasco* (Vitoria 1991), 487–488; E. Garcia Fernández, 'Las cofradías de oficios en el País Vasco durante la Edad Media (1350–1550)', *Studia historica. Historia medieval*, 15 (1997): 11–40; Idem, 'Las cofradías de mercaderes. mareantes y pescadores vascos en la Edad Media', in J. Á. Solórzano Telechea et al. eds., *Ciudades y villas portuarias del Atlántico en la Edad Media* (Logroño 2005), 257–294; Idem, 'Las ordenanzas de la Cofradía de Mareantes de San Vicente de la Barquera (1330–1537): un ejemplo temprano de institución para la acción colectiva en la Costa Cantábrica en la Edad Media', *Anuario de Historia del Derecho Español*, LXXXI (2011): 1029–1050; Idem, 'Por bien y utilidad de los dichos maestres, pescadores y navegantes: trabajo, solidaridad y acción política en las cofradías de las gentes de la mar en la España atlántica medieval)', *Medievalismo: Boletín de la Sociedad Española de Estudios Medievales*, 26 (2016): 329–356; S. Tena García, 'Cofradías y concejos: encuentros y desencuentros en San Sebastián a finales del siglo XV', in J. M. Antón Monsalvo ed., *Sociedades urbanas y culturas políticas en la Baja Edad Media castellana* (Salamanca 2013), 231–254.

prerogatives allowed them to quickly, and authoritatively, handle complicated and changing naval, mercantile, common, and international laws and customs to address merchants' interests, always with the aim of reaching agreements among the parties rather than for the actors having to resort to ordinary courts. Thus maritime communities avoided adding more juridical uncertainty to their already risky profession, which was far more exposed than others to the dangers of financial ruin: there was theft, piracy, fraud, cheating, inflation, monetary devaluation, embargos, and seizure of merchandise, not to mention economic crises, warfare, international conflict, and social upheavals.

Brotherhoods were organized in such a way that they could address members' needs; they were strengthened by their ordinances in managing economic activities, the defence of their interests against outside pressure, and deal with conflict resolution, and proselytism. Ordinances regulated the profession and supported the idea of a private law (*Ius privatista*), entailing jurisdictional exclusion of town judges (*alcaldes*) and royal governors (*corregidores*), given that brotherhoods enjoyed autonomous jurisdictional powers. Clearly brotherhoods and guilds were 'structures of sociability' based on mutual aid and the distribution of risk typical of maritime activities.[2]

In the Middle Ages, as sea traffic and economic and cultural exchanges developed, there was growing agreement on the need to control, watch over, and regulate the dividing line between maritime affairs and commercial activity, and authorities together with the commercial communities themselves set about establishing protective mechanisms. One outcome was the establishment of the *Almirantazgo* in southern Castile, part of the Hispanic monarchy's institutionalization policy,[3] as well as the *Almirall*

[2] García Fernández, *Las cofradías de oficios en el País Vasco*, 18.

[3] 'Si bien los monarcas procuraron la extensión de las competencias de esta institución, incluidas las de naturaleza jurisdiccional marítima, a todos los puntos del litoral castellano, lo cierto es que solo lograron este objetivo en Sevilla y, además, durante unos pocos años, como hemos anticipado. A pesar de que las medidas dictadas para lograr la efectiva consolidación del Almirantazgo (…) se intensificaron en el siglo XV y en los inicios del XVI. La Monarquía intentó sin éxito apuntalar la institución en puertos cantábricos (…) y en otros del sur de la Corona como los de Málaga, Almería y Marbella': M. Serna Vallejo, *Los "Rôles d'Oléron": el "coutumier" marítimo del Atlántico y del Báltico de época medieval y moderna* (Santander 2004), 158–159.

in the Crown of Aragon,[4] and the *Hermandad de la Marina de España*, or *Hermandad de la Marisma*, which established mercantile naval jurisdiction in the northern Spanish coast.[5] This process reflected the need to organize legal and institutional structures to safeguard and regulate maritime commerce under the protection of privileges granted by the authorities. But the establishment in Castile of special jurisdictions for maritime business was a late phenomenon, and at first was not applied to the entire kingdom. The documentation I have consulted indicates that during the thirteenth and fourteenth centuries only Seville enjoyed a special maritime jurisdiction.[6]

However, during the fifteenth century, the principal points of maritime mercantile law were defined, and the bases of exclusive jurisdiction and the control and management of maritime mercantile activities were consolidated. Thus crown strategy and the protectionist policies of certain mercantile corporations were a harbinger of mercantile practices typical of the early modern age.

The Mutualist Geography of Medieval Atlantic Castile

During the thirteenth century, King Alfonso X programmatically elaborated his expansionist objectives for the Castilian Atlantic coast through a decisive policy of founding coastal towns to reinforce naval strength. In the north, the foundation of the 'Cuatro Villas de la Costa' (San

[4] L. G. de García Valdeavellano, *Curso de Historia de las Instituciones Españolas: de los orígenes al final Edad Media* (Madrid 1970), 626.

[5] "Escritura de concordia y navegación entre la Hermandad de la Marina de Castilla y la ciudad de Bayona, estando presente los procuradores de las villas de Castro Urdiales, San Sebastián, Guetaria, Fuenterrabía, Motrico y Ladero Laredo que se obligaron no solo por sus villas sino también por las restantes de la marisma de Castilla": A. Ballesteros y Bereta, *La marina cántabra y Juan de la Cosa* (Santander 1954), 61.

[6] See the *Fuero de Sevilla* of 15 June 1250, published in M. Fernández de Navarrete, *Disertaciones históricas sobre la parte que tuvieron los españoles en las Guerras de ultramar o de la Cruzada, como influyeron estas expediciones en desde el siglo XI hasta el XV en la extensión del comercio marítimo y en los progresos del arte de navegar* (Madrid: Imprenta de Sancha 1816), 189–191; see also N. Tenorio y Cerero, *El Concejo de Sevilla: estudio de la organización político-social de la ciudad, desde su reconquista hasta el reinado de D. Alfonso XI, 1248–1312* (Seville 1901), 44.

Vicente de la Barquera, Santander, Laredo, and Castro Urdiales)[7] and the development of certain Basque towns ensured connections with European ports and further provided the necessary ships for maritime activities.[8] A century later Castilian monarchs followed the same strategy along the Vizcayan and Guipuzcoan coasts.[9]

In southern Castile, meanwhile, which was associated more with Mediterranean and African commerce than with Northern Europe, the establishment of the *Almirantazgo* ensured the building of ships in local shipyards, the creation of a *Barrio de la mar* (Quarter of the sea) in which there would be an exclusive judge appointed by the monarchy, and the establishment of the post of admiral (*almirante*), the latter in charge of maritime activities but especially of the military functions of fleets or navies. In other words, this was a post with full jurisdiction over seafarers, commercial navigation, and the control of contraband.[10]

The formation of the *Barrio de la mar* was of note given the growing importance of the Guadalquivir River from the thirteenth to the fifteenth centuries, just after the incorporation of medieval Andalusia into the crown of Castile.[11] This brought about a reorganization of the international commercial axes between the Atlantic and the Mediterranean. With the Strait of Gibraltar as a connecting passage, Andalusia gained in strategic importance, which favoured the trade of its products and

[7] J. Á. Solórzano Telechea, 'Los puertos del Rey. Síntesis Interpretativa del fenómeno urbano en el Norte de España durante los siglos xii y xiii', *Temas Medievales*, 17 (2009): 207–228.

[8] B. Arízaga Bolumburu, 'Conflictividad por la jurisdicción marítima y fluvial en el Cantábrico en la Edad Media', in Solórzano Telechea et al. eds., *Ciudades y villas portuarias del Atlántico*, 17–55, 21.

[9] Ibid., 22.

[10] J. M. Calderón Ortega, *El Almirantazgo de Castilla. Historia de una institución conflictiva (1250–1560)* (Madrid 2003); M. A. Ladero Quesada, 'El Almirantazgo de Castilla en la Baja Edad Media. Siglos XIII a XV', in *La institución del almirantazgo en España. XXVII Jornadas de Historia Marítima* (Madrid 2003), 57–82; R. Sánchez Saus, 'El Almirantazgo castellano hasta don Alonso Jofré Tenorio: redes de parentesco y tradición familiar', in *La Península Ibérica entre el Mediterráneo y el Atlántico. Siglos XIII–XV* (Sevilla-Cádiz 2006), 759–774; E. Aznar Vallejo, 'Las rentas del Almirantazgo castellano: Entre la ley la costumbre', *En la España Medieval*, 37 (2014): 131–163.

[11] See Footnote 6.

furthered connections with the outside world.[12] As a result, Andalusia became one of the richest regions, with the river playing a crucial role in determining regional organization and hierarchization.

Thus the Guadalquivir itself developed into a complex maritime hub, with Seville as the interior port under royal control, and Cadiz as a seaport run instead by local aristocrats (*señores*). Given its status as a sort of sluice gate or lock, Cadiz soon became the site of foreign merchants' *consulados*, granting dynamism to its relationship with merchant traffic in both the Mediterranean and the Atlantic.[13] The Seville-Cadiz axis became one of the most important economic and financial centres of the Crown of Castile. Seville was the business and bureaucratic centre and the supplier of wheat and oil, while Cadiz, given its exceptional location, acted as the warehouse. As a naval and commercial port it was a maritime crossroads, an obligatory stopping-off point on all the African, Atlantic, and Mediterranean routes.[14]

We do not find within this port system the development of a local mutualist culture such as evolved in the northern part of the peninsula, given that Seville was characterized not by guilds (*gremios*) or brotherhoods (*cofradías*), but rather by groups of inhabitants who practiced a given profession or industry with internal governance of their own affairs.[15] Seafarers, shippers, and merchants would have to wait more than two centuries to obtain their own *universidad* (association) with an autonomous jurisdiction. Nevertheless, the important presence of foreign

[12] A. Collantes de Terán Sánchez, 'El Guadalquivir y la Andalucía medieval', *Andalucía en la historia*, 62 (2018): 14–17.

[13] R. Sánchez Saus, 'Dependencia señorial y desarrollo urbano en la Andalucía Atlántica: Cádiz y los Ponce de León en el siglo XV', *Acta historica et archaeologica mediaevalia*, 26 (2005): 903–928.

[14] Cádiz and El Puerto de Santa María were the major ports for the traffic between the Mediterranean and the Atlantic; the major manufacturing centres of the region was instead Jerez de la Frontera, see E. Ruiz Pilares, 'Jerez de la Frontera: El gran centro productor del complejo portuario de la bahía de Cádiz a finales de la Edad Media', *Estudios sobre patrimonio, cultura y ciencias medievales*, 20 (2018): 356–386.

[15] Tenorio y Cerero, *El Concejo de Sevilla*, 150–151; J. M. Bello León, M. González Jiménez, 'El puerto de Sevilla en la Baja Edad Media (siglos XIII–XV)', in B. Garí, D. Abulafia eds., *En las costas del Mediterráneo occidental: las ciudades de la Península Ibérica y del reino de Mallorca y el comercio mediterráneo en la Edad Media* (Madrid 1996), 213–236.

mercantile communities in southern ports generated synergies directly related to maritime traffic.

The establishment of *consulados* and similar associations by the 'Italian'—Genoese, Florentine, Venetian—and Basque communities sharpened mercantile dynamics in the port towns, through the creation of their own associations.[16] This example was followed by Iberian merchants, with, for example, the establishment of the Vizcayan fraternity (*Cofradía de los vizcaínos*),[17] a professional brotherhood with religious connotations although still organized along the lines of a closed guild accepting only *pilotos* born in the coastal Basque provinces; the guild of Basque seafarers (*Gremio de mareantes vascos*); and the college of Vizcayan pilots in Cadiz (*Colegio de pilotos vizcaínos en Cádiz*), which was confirmed by the Catholic Monarchs in 1500 though its establishment dated from earlier.[18]

[16] On the creation of the Genoese, Florentine and Venetian *nationes*: R. González Arévalo, 'Integración y movilidad social de los italianos en la Corona de Castilla: genoveses, florentinos y venecianos en la Andalucía Bajomedieval', in L. Tanzini and S. Tognetti eds., *Competenze, conoscenze e mobilità sociale nell'Italia del Basso Medioevo* (Rome 2016), 375–401; R. González Arévalo, 'La integración de los italianos en las sociedades portuarias andaluzas (siglos XIII–XV)', in J. Á. Solórzano Telechea et al. eds., *Las sociedades portuarias de la Europa Atlántica en la Edad Media* (Logroño 2016), 249–284; J. M. Bello León, 'Los no vecinos en las ciudades de la Andalucía atlántica a finales de la Edad Media', in Solórzano Telechea et al. eds., *Las sociedades portuarias de la Europa Atlántica*, 285–317; J. Manuel Bello León, 'Mercaderes extranjeros en Sevilla en tiempos de los Reyes Católicos', *Historia. Instituciones. Documentos*, 20 (1993): 47–84; D. Igual Luis, G. Navarro Espinach, 'Los genoveses en España en el tránsito del siglo XV al XVI', *Historia. Instituciones. Documentos*, 24 (1997): 261–332.

[17] In the late middle ages, the expression '*vizcaíno*' was used not only for those originating from the *Señorío de Vizcaya* (present day *Provincia de Vizcaya*), but also from the Basque Country and the Cantábrico in general.

[18] Archivo General de Simancas (AGS) (Registro General del Sello) RGS, Leg. 1500–03: Seville, 18 March 1500: Don Fernando and doña Ysabel, "por quanto por parte de vos, el colegio de los pilotos estantes en la çibdad de Cadiz, nos fue fecha rrelaçion por vuestra petiçion, desiendo que de tanto tienpo aca que memoria de onbres no es en contrario an sido, ni la dicha çibdad el dicho colegio de viscaynos, los quales han tenido sus hordenanças justas e sus 14 leyes que tiene para nauegar al poniente de las carracas y galeas que vienen a la dicha çibdad de Calis, para las aviar a la parte de poniente, de lo qual nos aviamos seydo mui seruidos e nuestras rrentas acreçentadas, porque a cabsa del dicho colegio de los pilotos que estan estantes en la dicha çibdad, vienen las carracas y galeas para tomar los dichos pilotos a la dicha çibdat, e se venden e contratan muchas mercaderias, en que, como dicho es, eramos mui seruidose aprobechados los vesinos de la dicha çibdad, e que para conseruar el dicho colegio teniades çiertas hordenanças que eran justas y honestas, de las quales hasiades presentaçion ante nos en el nuestro Consejo",

In contrast, in northern Castile, first the mutualist corporations, and later the merchant *universidades* of Burgos and Bilbao, developed their own financial mechanisms. In this context, why do we mention Burgos, which is in the interior? Because Bilbao took advantage of its privileges in terms of customs and of its position as the Northern gate of Castille, while Burgos, the leading exporter of Castilian wool, was to depend on a port 100 kilometres away to integrate itself into international trade. Some historians have detected an ad hoc port complex in this special and spatial relationship, one that was energized, competed, and developed in line with the evident tensions between the two urban centres since the start of the fifteenth century, particularly concerning the role and status of each in Northern European centres.[19]

Local and foreign actors were also present in the sociocultural geography of the port space in Bilbao and the Nervión River. This commercial area, as has been already stated, expanded from the hinterland of Burgos, because it was the Burgos Association of Merchants (*Universidad de Mercaderes*), later becoming a *consulado*, which had jurisdiction over Castilian ships and their chartering. This concession brought about a sharp change in the manner international navigation and commerce were organized, and set off a veritable torrent of lawsuits by Basque merchants, *maestres*, and ship-owners.[20] At some point before 1477, the Vizcayans established a mercantile corporation similar to that of Burgos, though not with the formal name, which was charged with attending to ship manifests for cargo entering the port of Bilbao as well as granting concessions for

published in E. de Labayru y Goicoechea, *Historia General de Señorío de Bizcaya* (Bilbao 1967), III Apéndice nº 43.

[19] H. Casado Alonso, 'Los agentes castellanos en los puertos atlánticos: los ejemplos de Burdeos y los Países Bajos', in A. Fábregas García ed., *Navegación y puertos en la Edad Media y Moderna* (Granada 2012), 163–194, 185; A. M. Rivera Medina, 'La construcción-reconstrucción de un espacio portuario El canal y ría de Bilbao en los siglos XIV–XVI', in A. Polónia, A. M. Rivera Medina eds., *La gobernanza de los puertos atlánticos, siglos XIV–XX. Políticas y estructuras portuarias* (Madrid 2016), 171–191; Eadem, 'Espacios urbano y portuario: las dinámicas de gestión del Canal y Ría de Bilbao, Siglos XIV–XVI', in E. Aznar Vallejo et al. eds., *De mar a mar. Los puertos castellanos en la Edad Media* (La Laguna 2015), 93–122.

[20] J. A. García de Cortázar, *Vizcaya en el siglo XV: aspectos económicos y sociales* (Bilbao 1966), 240–241.

loading permits.[21] In 1481–89, it appears in the documents as the Association of Merchants and Ship Masters of Bilbao (*Universidad de mercaderes y maestres de nao de Bilbao*). The association organized the cargo system from 1489 and ordered that no ship could go to sea '*sin tomar dinero de Dios y contar averías*'.[22] The first antecedent of a contribution for the support of seamen or fishermen was called *dinero de Dios* (monies of God) and it was a fixed contribution collected by the Bilbao and Burgos ship-owners and merchants associations for almsgiving.[23] It amounted to ten *maravedis* per vessel to be distributed as follows: one third for the construction of churches, one third to confraternities, and the last third for the relief of poor merchants or their widows and orphans.[24]

[21] T. Guiard y Larrauri, *Historia del Consulado y Casa de Contratación de la villa de Bilbao*, 2 vols (Bilbao 1972), I: 438.

[22] J. Enríquez Fernández et al. eds., *Ordenanzas municipales de Bilbao (1477–1520*) (San Sebastián 1995), 20; *Libro de Acuerdos y Decretos Municipales de la Villa de Bilbao (1509–1515)*", San Sebastián, nº 56; "Ordenanzas Municipales de la Villa de Bilbao (1477–1520)", 2007, 135, nº 70: "Bilbao, 1489–1490. Ordenanzas de la villa de Bilbao sobre fletamento de naos en la ría y averías".

[23] One of the first references to the *monies of God* corresponds to a municipal ordinance of 1477: '*mandaron que fuese pregonado por las calles e plaças e cantones acostunbrados porque non pretendiesen ynorançia e por quanto nuevamente algunos consoles o su mandado de la vnibersidad de la çibdad de Burgos querian que non se contasen las averias en casa del fiel desta dicha villa, commo de largos tienpos en aca lo avian acostunbrado, e porque non querian que se contase el dinero de Santiago e Sant Anton e de los otros santos commo lo avian acostunbrado*'—'they ordered it be announced in usual streets and squares and districts so no one could feign ignorance with which some consuls or their underlings refused to *count averages* in the house of the officer of this town, as has been ancient custom and use and because they refused to pay the monies of Santiago and Saint Anton and of other saints as is ancient custom',—indicating once again the harsh discord between both corporations; see: Enríquez Fernández et al., eds., *Ordenanzas municipales de Bilbao*, 20.

[24] In 1480, Bilbao reaffirmed ancient use and ordinances by establishing several ordinances decreeing that no ship was to leave the port without paying the *monies of God*, '*Capitulo de commo los sennores conçejo acordaron que non de el fiel de los mercaderos dinero de Dios y contar avería a ningund maestre fasta/ quel primero nabio secargue, (…) y entendiéndose también que habían de pagar todas las mercaderías el dinero de Santiago y San Antón.*'—'Chapter on how the lords of the council agreed that no officer of the merchants should give monies of God and count averages before the ship has been loaded (..) and it be understood that they were to pay all monies of Santiago and Saint Anton on the merchandise': J. Enríquez Fernández et al. eds., *Libro de Acuerdos y Decretos Municipales de la Villa de Bilbao (1509–1515)*, Bilbao, nr. 56; Idem, *Ordenanzas Municipales de Bilbao* (1477–1520). On the value of contribution: E. J. de Labayru y Goicoechea, *Historia General del Señorío de Bizcaya* (Bilbao 1971), 445. See also M. Basas

Through the so-called *dinero* or *avería de la nación* the Castilian *nacion* based in Bruges supported its own costs, namely administrative costs and wages, its chapel and costs associated with the social life of the mercantile community. This was a mandatory contribution based on the value of the goods traded, a sort of membership fee for merchants of what can be described as a professional association. The expression *contar averías* was used to describe the collection and management of this contribution.[25]

In 1494, the *Consulado de Burgos* was established. Its royal charter (*pragmática*)[26] granted it sole jurisdiction over mercantile suits concerning loading, *consulados* abroad, *averías*, etc. The directors of the *Consulado* held authority to administer justice and oversee the chartering of ships going to foreign markets, including ships not only from Vizcaya and Guipúzcoa, but also the Villas de la Costa and the Merindad de Trasmiera. The *pragmática* removed mercantile jurisdiction from the ordinary courts, from then on each *consulado* had its own ordinances regulating maritime traffic. Clearly, the *pragmática* bestowed enormous privileges upon the merchants of Burgos, setting off a violent dispute

Fernández, *El Consulado de Burgos en el siglo XVI* (Madrid 1963), 33; J. D. González Arce, R. Hernández García, 'Transporte naval y envío de flotas comerciales hacia el norte de Europa al Cantábrico Oriental (1500–1550)', *Espacio, Tiempo y Forma. Serie Historia Moderna*, 24 (2011): 51–87; J. Gil Sáez, J. D. González Arce, R. Hernández García, 'El comercio de los puertos vascos en la primera mitad del siglo XVI a partir de los contratos de fletamento', *Investigaciones históricas: Época moderna y contemporánea*, 33 (2013): 37–62; J. D. González Arce, 'La ventaja de llegar primero. Estrategias en la pugna por la supremacía mercantil durante los inicios de los consulados de Burgos y Bilbao (1450–1515)', *Miscelánea Medieval Murciana*, 33 (2009): 77–97; and his 'La universidad de mercaderes de Burgos y el consulado castellano en Brujas durante el siglo XV', *En la España Medieval*, 33 (2010): 161–202.

[25] Basas Fernández, *El Consulado de Burgos*, 129; C. Hidalgo de Cisneros Amestoy et al. eds., *Colección documental del Archivo Municipal de Portugalete* (San Sebastián 1987), 98; see also J. M. Pardessus, *Collection des lois maritimes antérieures au XVIII siècle*, 6 vols (Paris: Imprimerie royale 1828–1845), I: 51: 'Privilegio de Doña Juana' Madrid, 7 March 1514'.

[26] The charter is dated 21 July 1494, later it was incorporated in the *Nueva Recopilación* as "ley 1, título 13, libro 3°", then in the Novísima as "ley 1, título 2°, libro 9°"; published in the *Ordenanzas Generales del Consulado de Burgos* (1538) in E. García de Quevedo y Concellón ed., *Las ordenanzas del Consulado de Burgos de 1538* (Burgos 1905), 152–163; A. de Capmany y Montpalau, *Código de las costumbres marítimas de Barcelona, hasta aqui vulgarmente llamado Libro del Consulado nuevamente traducido al castellano*, 2 vols (Madrid: Don Antonio de Sancha 1791), II: 153–160.

with those of Bilbao regarding their respective rights over ships carrying wool.[27] Burgos became the centre of business for export merchants and the Iberian Peninsula's most important financial centre.

As a result, Basque merchants, especially those from Bilbao, complained about their new secondary status. Bilbao's *universidad* filed a bitter protest that was supported by allies in Guipúzcoa, Álava, and throughout Vizcaya.[28] In response, the crown proposed a meeting between the two sides, which ended badly. In a royal writ of 1495, the *Consulado* of Burgos was denied jurisdiction over the *Señorío* (i.e. Bilbao), and the crown also altered its accounting rules, ordering that each shipper be able to load whichever ships they wanted, that ships from Burgos and Bilbao be chartered together, and that each *universidad* divide the corresponding *averías*.[29] In 1499, when an annual fleet to Flanders was established, it was ordered that Burgos would set prices for the wool cargo and Bilbao would do the same for iron.[30]

Finally, the *Consulado* of Bilbao was established in 1511. Its full name was "*Consulado, Casa de Contratación, Juzgado de los negocios de mar y tierra y Universidad de Mercaderes de Bilbao.*" New ordinances were drawn up regarding maritime insurance, setting off more conflicts with Burgos and the collapse of existing socioeconomic networks.[31] The latent tension became obvious with attempts to organize maritime mercantile activities, the solution being that Burgos managed the wool trade and Bilbao maritime trade. There was no turning back, and a new order was clearly on the horizon: modern times, with the promulgation of ordinances for the *Consulados* of Bilbao and Burgos.[32]

[27] On this controversy, see: Basas Fernández, *El Consulado de Burgos*, 130.

[28] Guiard y Larrauri, *Historia del Consulado y Casa de Contratación de la villa de Bilbao*, I: 12.

[29] "Cumplimiento del capítulo inserto, dado el 11 de agosto de 1495, sobre la obligación de acoger mercaderías de cualquier mercader en los navíos fletados por la Universidad de Mercaderes de Burgos y pagar una avería común": AGS, RGS, Leg. 150010, 475 (Valladolid, 21 October 1500).

[30] 'Capitulación entre Burgos y Bilbao de 1499', in Guiard y Larrauri, *Historia del Consulado y Casa de Contratación de la villa de Bilbao*, I: 16–20.

[31] J. Enríquez Fernández et al. eds., *Archivo Foral de Bizkaia. Sección Notarial (1459–1520). Consulado de Bilbao (1512–1520)* (San Sebastián 2007), 135, Doc. 29.

[32] S. M. Coronas González, *Derecho mercantil castellano: dos estudios históricos* (Oviedo 1979), 31.

Mutualisation of Maritime Risk *'según la costumbre castellana'*[33]

In the European Mediterranean and Atlantic, the most typical payment or contribution supporting consulates and associations was called the *avería*, a term applied to damages suffered or undergone during navigation. In the realm of maritime law, it has a broader definition and can be linked to the Latin terms *avere*, *aver*, *habere*, and *avers*, all of which were in use throughout the Mediterranean since the twelfth century in the context of pacts among merchants through which they shared risks among those transporting merchandise on board.[34] Within the territories of the Aragon crown, these types of agreements were known as *pactos de hermanamiento*, and they established 'risk-sharing association' of sorts. Within these agreements, each merchant contributed in proportion to the value of the merchandise he loaded onto the ship.[35] Later on the word *avería* was used to refer to damages leading to claims lodged with insurers, and it also referred to any extraordinary expenses or damages.[36] To summarize, by the late Middle Ages, in the territories of the Kingdom of Castille, there already existed different types of Averages (*averías*). The three main types were: *avería de Universidad*, the contributions of merchants to support the costs of consular activities; *averías communes*, used to describe the ordinary expenses of setting up and properly furnishing a commercial vessel; *avería gruesa* was used instead to describe those extraordinary defence costs which were occasionally necessary to ensure the safety of commercial voyages.[37]

From the beginning of the sixteenth century, sailing on the Western seas was increasingly complicated and dangerous, as these European

[33] Expression used in a 1402 freight contract, which specifies it follows the 'Iberian custom', see A. García Sanz, 'Estudios sobre los orígenes del Derecho Marítimo hispano-mediterráneo', *Anuario de Historia del Derecho Español*, XXXIX (1969): 213–316, 274.

[34] Guiard y Larrauri, *Historia del Consulado y Casa de Contratación de la villa de Bilbao*, I: 83. For the contested issue of the etymology of word see the contributions of Andrea Addobbati and Hassan Khalilieh in this volume.

[35] Capmany y Montpalau, *Código de las costumbres marítimas de Barcelona*, II: 49.

[36] M. Luque Talaván, 'La avería en el tráfico marítimo-mercantil indiano: notas para su estudio (siglos XVI–XVIII)', *Revista Complutense de Historia de América*, 24 (1998): 113–145, 125.

[37] Basas Fernández, *El Consulado de Burgos*, 168.

Atlantic waters were infested with Portuguese, Spanish, Irish, English, and French pirates, making some sort of protective mechanism necessary, especially with piratical activities expanding at the same rate as maritime traffic.[38] This general insecurity was caused by several factors: proper piratical activities, officially sanctioned privateering, and frequent bouts of war, all interplaying factors which led to navigation being organized in convoys or fleets with ships protected by escorts.[39] A policy of dubious utility as some of the *maestres* were reluctant to follow instructions, and abandoned convoys they deemed to be too slow. In other occasions, the frequent bad weather of these seas dispersed the fleet, rendering navigation in convoy impossible.[40]

In Castile, *avería* was used in reference to a mutualist contribution or dues whose juridical formulation grew out of two aspects: mercantile law, with its tendency towards simplicity and immediacy, and the maritime experience, with all its risks. From there, the framework of application broadened, and *avería* came to be understood as a variety of different means for mutually supporting losses so as to protect the business enterprise. This usage then was adopted by the realm of political power, as an instrument of finance after the discovery of America, when voyages went from lasting a few weeks to a few months, with entailed far greater dangers, leading to the period of the *Carrera de Indias*.[41] In addition, the *averías*, both *comunes* and *gruesas*, cannot be considered as part of a kingdom's or state's fiscal system, or as a public contribution, because they originated from a guild-like institution created by seamen and had been in use for a long time, acquiring their identity and form over time.[42]

Thus one can ask, when and how did these Hispanic instruments come into use? When did the confusion between the different varieties of *averías* begin? The antecedents have to do with the activities of the Castilian *nacion* established in Bruges, which included all the King of

[38] C. Fernández Duro, *Armada Española desde la unión de los reinos de Castilla y Aragón*, 9 vols (Madrid: Sucesores de Rivadeneyra, 1895–1903), I–347.

[39] *Cortes de los Antiguos Reinos de León y Castilla*, & vols (Madrid 1866), vol III; Cortes de Toledo de 1436, ley 5; y Cortes de Madrigal de 1438, ley 15 in *Fuentes Documentales Medievales del País Vasco* (San Sebastián 1999), 95: 478–479, 691–692.

[40] Ibid., Cortes de 1463, III, 263–265.

[41] Fernández Duro, *Armada Española*, I: 201. On these developments see the contribution of Marta García Garralón in this volume.

[42] R. Carande, *Carlos V y sus banqueros* (Barcelona 2000), 122.

Castile's subjects, first in the form of a confraternity (1414)[43] and then as a *consulado* (1428).[44] However, the growing rivalry between Basques and Castilians meant that this unity would be destroyed. Legal proceedings before the Bruges Chamber in 1451 were the first steps in the eventual break between the two communities, which was formalized in an arbitration judgement handed down by Henry IV on 29 August 1455.[45] From then on there would be two *consulados* in Bruges: one was called the *consulado* of Spain—or sometimes of Castilla y León, or even of Burgos—gathering merchants and traders from the interior of the Kingdom of Castile south of the Ebro River; the other was the *consulado* of Vizcaya—or the Vizcayan *nacion*, or the Nation of the Coast of Spain, openly stating that 'the nation of Vizcaya was separate from the nation of Spain'. This comprised Vizcaya, Guipuzcoa, Álava, and the Coast of Spain, the latter referring to seafarers and merchants from the Cantabrian seabord and Galicia.[46] A century later the division still stood, as will be described in the following pages.

The origin, destination, and management of the different types of *averías* contributions created uncertainty, even for institutions, in both Spain and abroad. In 1515, on the occasion of a dispute among the consuls of Vizcaya, Guipuzcoa, and the Coast of Spain on the one hand, and Florentine merchants on the other, on account of contributions the Italians owed for *averías*. The Council of Bruges, given the complex and obscure nature of these payments, discussed three major types: the first was *grosse et commune avarie*; the second was *petite*; and the third was called *denier de nation* for the Vizcayans[47] and *massaria* for the Italians.[48] The Flemish judiciary thus established some order regarding the

[43] L. Gilliodts Van Severen, *Cartulaire de l'ancien consulat d'Espagne à Bruges: recueil de documents concernant le commerce maritime et intérieur, le droit des gens public et privé, et l'histoire économique de la Flandre*, 2 vols (à Bruges 1901), I: 21.

[44] Gilliodts Van Severen, *Cartulaire de l'ancien consulat d'Espagne*, I: 23.

[45] Gilliodts Van Severen, *Cartulaire de l'ancien consulat d'Espagne*, I: 50, 68, 84, 151, 170.

[46] "Valladolid, 13 de setiembre de 1513. 'Aprobación real realizada por la Reina Juana de las concordias sobre comercio realizadas entre el Consulado de Burgos y la villa de Bilbao, que contiene 16 capítulos": *Fuentes Documentales Medievales del País Vasco* (San Sebastián 2000), 108: 1182 and ff.

[47] Ibid., 15: 98.

[48] Gilliodts Van Severen, *Cartulaire de l'ancien consulat d'Espagne Bruges*, I: 230–240. On these issues see also G. Dreijer, *The Power and Pains of Polysemy: General Average,*

types of *averías*, especially concerning the sort under examination in this essay.

The scarcity of Castilian sources for the fourteenth and fifteenth centuries limits our ability to provide an exhaustive analysis of the definition, juridical formulation, and management of various sorts of *averías*. Only once the consular ordinances of the sixteenth century and beyond were issued can we truly understand the device and its modalities.

In 1521, a new concept appeared which, though it could not solve the piracy problem, could at least mitigate it: this was the *avería del comercio de Indias*, whose purpose was none other than to decrease navigational risks through a financial 'security service' paid for by private parties.[49] Payments were mandatory and proportional to the cargo, a preventative manner of protecting their property while diminishing the extraordinary risk of piracy. The solution was for those involved in maritime trade to contract their own security service, given the state's inability to resolve the problem, though the seed of state intervention was present from the start.[50]

After Columbus's voyages and the inauguration of new commercial routes, the *avería* would gain a further dimension. The administrative apparatus began fitting out the fleets and collecting the *avería* tax, which became consolidated under the control of the Royal Treasury.[51] But with time it became clear that the administration's results were not satisfactory. The crown once again decided to entrust the task to private parties, using the so-called *asiento* system, which had been in use in 1521–1537.[52] Thus within the American trade different meanings of the word *avería*

Maritime Trade and Normative Practice in the Southern Low Countries (Fifteenth-Sixteenth Centuries), Unpublished PhD thesis, University of Exeter and Vrije Universiteit Brussel 2021.

[49] In this period emerges a new type of piratical activity, with stateless actors' activities substantially increasing navigational risks. These were not covered by insurance, and therefore these losses could not be recovered in this way, see: M. M. Vas Mingo and C. Navarro Azcué, 'El riesgo en el transporte marítimo del siglo XVI', in *Congreso de Historia del Descubrimiento (1492–1556)*, 4 vols (Madrid 1992), III: 579–614, 606, 614.

[50] G. Céspedes del Castillo, *La avería en el comercio de Indias* (Sevilla 1945), 56.

[51] J. de Veitia y Linaje, *Norte de la Contratación de las Indias Occidentales* (Seville: Iuan Francisco de Blas 1672), I: Ch. 20, 21, 22. In 1573 Philip II published some ordinances on this tax.

[52] Céspedes del Castillo, *La avería*, 80.

emerged. *Averías gruesas* were of two types: (a) those which were sometimes necessary to reinforce the military protection in moments of a particular danger, and (b) those which would be now described as 'General Averages', namely those extraordinary expenses which were deemed necessary due to storms or c*asus fortuitus* forcing the jettison of cargo for the safety of the whole enterprise.[53] Those latter costs were proportionally redistributed between the ship and the owners of the extant part of the cargo.[54] The evolution of the concept and its potential multiplication and the existence of different processes all called *Averías* created a certain amount of confusion.

Within the Iberian environment at large, historians generally distinguish between two large types of *averías*: (a) ordinary, simple, or particular (also referred to as *avería consular*) which are preventative and collected, and (b) common, general (*gruesa*), or jettison, which are compensatory or reparatory. The former are associated with mutualist dues or contributions that guild members must pay for the consul and the naval protection; the latter are recognized as *avería-daño*, or maritime risk or General Average or jettison Average. Both in juridical literature and in laws and ordinances, starting with the *Partidas* up through the eighteenth century, all of them are included with the wider concept of navigational risks as referring to all types of risks, those coming from the sea and the forces of Nature, but also those deriving from men, including those due to negligence or malice.

General Average and Jettison

Avería gruesa, in the realm of maritime law, has meant a variety of things, though the common denominator has been the notion that parties involved in maritime adventures should exhibit solidarity towards one another, and have an obligation to contribute in the case of a sacrifice or expense made for the preservation of the common undertaking. This solidarity arises from the idea of a commonality of interests, or mutualisation, which materializes on each voyage. In the following pages I will analyze

[53] On these see the contribution of Marta García Garralón in this volume.

[54] Veitia y Linaje, *Norte de la Contratación*, I, 20, vers. 5–8; see also L. Zumalacárregui, 'Contribución al estudio de la avería en el siglo XVI y principios del XVII', *Anales de Economía*, 4/16 (1944): 385–424, 392.

the evolution and application of the *avería gruesa* according to the *usos españoles* which were different to those of other European Atlantic areas.

Under the assumption that all these premises grew from early Mediterranean navigational traditions and codes, the Hispanic concept of *avería gruesa* has its roots in the *Liber Iudiciorum*, a collection of Visigoth regulations in Spain that later were translated, modified, and updated from Latin into Castilian Spanish upon the order of Ferdinand III, King of Castile. During the fourteenth and fifteenth centuries these were granted as charter laws (*fueros*) to certain southern towns on the Iberian Peninsula[55]; these grants were known as the *Libro de los Jueces*, or the *Fuero Juzgo*.[56] The code established the bases of Hispanic maritime law, two of whose definitions were seafarers' autonomy and the obligation to contribute to a common undertaking.

Shortly thereafter, in 1255, with the issuance of the *Fuero Real*, further precision was arrived at concerning two basic concepts of maritime law: that items lost during shipwrecks or jettisons belong to those who had loaded them onto the ship, and that all freighters must contribute to indemnify those who lost their goods to jettison.[57] A further step in the construction of the concept of risk management in Castilian maritime law can be found in the *Siete Partidas* which, along with the *Fuero Juzgo*, reflect the monarchy's strategy regarding mercantile activities in the Atlantic.[58] Alfonso X the Wise revolutionized the situation when he became the first European monarch to order that mercantile and maritime institutions be handled apart from ordinary jurisdiction. However the *Partidas* would be implemented only in the following century, during the reign of Alfonso XI.

[55] M. Á. Chamocho Cantudo, *Los fueros de los reinos de Andalucía: de Fernando III a Las Reyes Católicos* (Madrid 2017).

[56] S. M. Coronas González, *Fuero Juzgo de Juan de la Reguera Valdelomar, 1798* (Madrid 2015), 132.

[57] *Fuero Real*, Madrid, 1836, IV: 1–2, 161.

[58] P. A. Porras Arboledas, 'El derecho marítimo en el Cantábrico durante la Baja Edad Media: Partidas y Rôles d'Oléron', in B. Arízaga Bolumburu, J. Á. Solórzano Telechea eds., *Ciudades y villas portuarias del Atlántico en la Edad Media Nájera. Encuentros Internacionales del Medievo* (Logroño 2005), 231–256.

It is, precisely, in the *Partidas* where one finds the most detailed regulations concerning maritime affairs, particularly in *Partidas* II, III, and V.[59] Part II is devoted to maritime warfare and distinguishes the Armada from the fight against corsairs, and also concerns the division of booty (titles 24, 26, and 27); part III is devoted to chartering (*fletamentos*) (title 18); and part V, the most important for our purposes, contains regulations regarding maritime mercantile law, with titles V and IX concerning, respectively, maritime law and the regulation of maritime traffic.[60] The *Partidas* also regulate the respective responsibilities of the person who sells a ship (law 5. 35), the shipper (*transportista*) (1.8), the charterer (*fletante*) (1.13), the ship-owner (1.26), and seamen (1.27).

On the regulation of traffic, it outlines the duties of the *maestre* (1.1), his responsibility in cases of negligence (1.9), his capacity to discipline others (1.2), punishments or fines (*penas*) in case of shipwreck (1.10), and external factors that might promote shipwreck (1.11). Finally, it makes a direct reference to *avería gruesa* (1, 3, 4, 5, 6, 8, 12), especially concerning flotsam washing ashore and considered the property of its owners (1.7), merchandise taken by corsairs (1.13), and the capacity of maritime judges to take summary action (1.15).

The juridical formulations in the *Partidas* concerning *avería gruesa* would appear to be drawn from the *Digest*[61] and the *Rôles d'Oléron*[62] or, more precisely, its Castilian translation, the *Leyes de Layron*,[63] specifically the contribution of goods and ships in case of jettison, the contribution in case of jettison followed by shipwreck, per broken mast, in case of shipwreck, due to losses in trans-shipment or transfer, and in cases where ransom was paid to corsairs.[64]

[59] *Ibidem*.

[60] *Las Siete Partidas*, 4 vols (Madrid Compañía General de Impresores y Libreros del Reino 1843), vols I and II.

[61] J. Sala Bañuls ed., *Digesto romano-español*, 2 vols (Madrid: Colegio Nacional de Sordo-Mudes 1844), I: 126–130; see also the contribution of Daphne Penna in this volume.

[62] Regarding *avería gruesa*, the *Rôles d'Oléron* recognise the cutting of the mast and jettison: Serna Vallejo, *Los "Rôles d'Oléron"*, 46.

[63] *Fuero de Layron*, juicios 8, 9, 10 y 11. Biblioteca Nacional, Sección Manuscritos, Mss 714, folios 91–94, in M. Flores Díaz, *Hombres, barcos e intercambios. El derecho del siglo XIII en Castilla y Aragón* (Madrid 1998), 145.

[64] *Las Siete Partidas*, 783–788, leyes 3, 6, 4, 5, 8, 12.

Originally, in the *Digest* the term was linked to the development of the *gruesa ventura*, a sort of insurance and prevention system or an incipient form of mutual insurance among merchants and ship-owners when maritime insurance did not yet exist.[65] It has been argued that the difference between *avería gruesa* and maritime insurance was that 'policies of maritime insurance included coverage of persons other than the merchants, the insurers, in return for payment of a premium by the insured, the merchants. In contrast, with *avería gruesa* it was the merchants themselves, along with ship-owners, who bore the risk, the expenses, and the damages; it was a prorated system of solidarity'.[66]

Castilian law defined *avería gruesa* as a situation in which 'interested parties in a common maritime voyage share the economic cost of damages suffered by any one of them and make efforts to save the ship, the cargo, or both at the same time'.[67] This was a voluntary prorating to benefit the common goals of the undertaking that had to be borne by all those present on the ship. Therefore in its genesis the *avería* attempted to lessen the damaging consequences of accidents due to ordinary and extraordinary risks both to the merchandise and to the ships, at a time when either insurance did not exist or when the risks included in insurance formulas of the day were not all present. Jettison (*echazón*) is defined as 'throwing the cargo or part of the cargo off the ship so as to lighten the load',[68] that is, to save the ship. This was a decision to be made by the *maestre*, after discussing it with the merchants on board, or their agents, and the crew, either due to urgent necessity or for the common benefit of all cargo. Therefore, following the description contained in the *Partidas*, jettison is the most common event in initiating a case of *avería gruesa*.

Once the bases of medieval Castilian maritime law were set, laws concerning *avería gruesa* were incorporated into other ordinances and codes, making the Hispanic juridical system more systematic. In the fifteenth century, the compendium known as the *Ordenamiento de Montalvo* cited and adapted all the various royal orders in the *Partidas*,

65 Sala, *Digesto romano-español*.

66 M. M. Vas Mingo and M. Luque Talaván, *El laberinto del comercio naval. La avería en el tráfico marítimo-mercantil indiano* (Valladolid 2004), 165.

67 Vas Mingo and Luque Talaván, *El Laberinto del comercio naval*, 165.

68 M. Serna Vallejo, 'La correspondencia entre los contenidos de los Rôles d'Oléron y el texto más antiguo de las Costumes de Mar del Llibre del Consolat de Mar', *Initium. Revista catalana d'historia del dret*, 20/1 (2015): 159–204, 198.

the *Ordenamiento de Alcalá* (1348), and a wide range of bulls and writs issued by monarchs and other authorities on a wide range of issues. In Book VI of the *Ordenamiento de Montalvo,* concerning administrative law, two laws contained in title XII refer to maritime risk, following *ius commune* tradition.[69] The *Cortes* of Toledo in 1480 noted that flotsam after shipwrecks was the property of the owners of ships and cargo, and they also established that ships finding refuge in ports owing to bad conditions at sea could not be charged duties there.[70] In 1484, the Catholic Monarchs confirmed this regulation for seamen in the *Ría* of Pontevedra in Galicia.[71]

In the early sixteenth century, as maritime trade broadened and expanded, the *consulados* of Bilbao and Burgos clarified and better defined juridical devices for managing risk. This was the point at which the concept of *avería gruesa* would be refined. In 1514, the Burgos guild, more attentive to business than that of Bilbao, issued a declaration concerning insurance policies.[72] Later, Bilbao issued its own ordinance on maritime insurance in 1520.[73] In both documents, the formulation of *avería gruesa* was adapted to new mercantile perspectives arising from the appearance of new markets and business opportunities. The *Consulado* of Burgos ordinance was promulgated in 1538.[74] Those of Bilbao were modified in 1531, but ratified by the King only in 1560, precisely defining conditions of *averías*, and particularly of *avería gruesa*.[75]

[69] *Ordenamiento de Montalvo, Ordenanzas reales de Castilla o Libro de las leyes*. Sevilla: Tres compañeros alemanes [Juan Pegnitzer. Magno Herbst y Tomás Glockner] (4 abril, 1495) Alfonso Diaz de Montalvo, available at: https://bibliotecadigital.jcyl.es/es/consulta/registro.cmd?id=21345 (last accessed 20 December 2021).

[70] Cortes de Toledo de 1480: in *Cortes de los Antiguos Reinos de León y Castilla*, 7 vols (Madrid: Imprenta y Estereotipia de M. Rivadeneyra, 1861–1903), III: 61.

[71] Tarazona, 22 de marzo de 1484. Martín Fernández de Navarrete, *Colección de los viajes y descubrimientos que hicieron por mar los españoles desde fines del siglo XV, con varios documentos inéditos concernientes a la historia de la marina castellana y de los establecimientos españoles en Indias*, 5 vols (Madrid: Imprenta nacional 1829–1859), II: 543–54.

[72] Coronas González, *Derecho mercantil castellano*, 217–221.

[73] J. Enríquez Fernández et al. eds., *Archivo Foral de Bizkaia. Sección Notarial (1459–1520). Consulado de Bilbao (1512–1520)*, 135, 171–176.

[74] García de Quevedo y Concellón ed., *Las ordenanzas del Consulado de Burgos*, 227.

[75] For the second version see: Guiard y Larrauri, *Historia del Consulado y Casa de Contratación de la villa de Bilbao*, 582–598; for the royal ratification: I: 32.

The broad and detailed Burgos ordinance contains two distinct parts: the first concerns the internal organization of the institution, its governance, and mercantile jurisdiction; and the second part concerns maritime risk and insurance, including *avería gruesa*, which reflects the keen interest in the subject. The ordinance describes *avería gruesa*, jettison, and *risgo*; and explains,

> we take risks and run risks with the sea, the wind, and fire ... and whatever other danger and fortune of any means or sort that might come upon us and occur, or which has come upon us and occurred, because we run the risk together and insure or take it upon ourselves, and in the way described we run the said risk, except in cases of owner fraud, the day and time when the said ship first left or was to leave.[76]

After this section, all aspects concerning the voyage, the ships’ condition, cargo, responsibilities and obligations, instances of fraud, time periods, amounts, certifications, and relevant documentation are provided in detail. Finally, it is important to point out that ordinances also discussed shipwrecks: insurers ‘are obliged to pay in the case of any damage to sacks [*sacas*] and other merchandise … in the case of shipwreck’.[77] Among the related terms appearing in this text are *avería gruesa*, *risgo*, *echazón*,[78] *fortuna*, *tormenta de la mar*,[79] *tormenta de mar notoria*,[80] and *fortuna e tormenta de la mar notoria*.[81] The maritime and commercial legislation that grew out of the 1538 Burgos ordinances became a model and antecedent and had great influence in regulations later drawn up by the *Consulados* in Seville and those in the Americas.

In documents from the sixteenth and seventeenth centuries, one can find a multitude of references to *avería* with no explanation of its exact

[76] “...risgo tomamos y corremos de mar y de viento é de fuego y de otras qualesquier represarías (…) é de otro qualquier peligro y fortuna de qualquier manera ó condición que pueda venir ó acontescer ó haya venido ó acontescido, ca todo lo corremos y aseguramos ó tomamos sobre nos, é que de la manera sobredicha corremos el dicho risgo, esceto de barata de patrón,del dia y hora que la dicha nao primeramente partió ó partiera”: in García de Quevedo y Concellón, *Las ordenanzas del Consulado de Burgos*, XLVIII.

[77] Ibid., LXII.

[78] Ibid., L.

[79] Ibid., LXV.

[80] Ibid., LVII.

[81] Ibid., LXXIX.

meaning, because along with the traditional *avería gruesa* there were also the *avería consular* and the Americas *avería*. In fact, *avería gruesa* itself is rarely used, making it necessary to consult judicial sources for the characteristics and particularities of the cases. The most common outcome was that maritime incidents and accidents would be argued before the courts, though it was not until the second half of the seventeenth century that *averías gruesas* were clearly distinguished. Until then, incidents were registered according to the cause or type of damage rather than with the term *avería gruesa*.[82]

Conclusion

This essay has described the process of mutualisation by communities of Castilian merchants through the establishment of guilds and *consulados* which, during the Middle Ages, had organizational structures regulating their internal functions and, most importantly, the risk (*periculum*) associated with maritime trade. Thus maritime law, which in Castile can be argued goes back to the Visigoths and was developed based on the legislation of Alfonso X the Wise, was redefined on the basis of seafaring traditions. At the same time, merchant associations and, later, institutions with their own mercantile jurisdiction, issued regulations concerning maritime risk, understood as all accidents at sea or arising from the sea and the forces of nature or human activity, summarized in three terms that would cover different risks: the charter contract, the *avería*, and maritime insurance.[83]

In Castile, *avería* at first referred to a financial quota or contribution, and later on it would be classified as *avería ordinaria* or *avería gruesa*. The former was preventative and collection-oriented; the latter was compensatory or reparative, that is referring to *avería-daño* or maritime risk. Since the late Middle Ages the juridical term and its application generated great confusion both in legal terms and on a practical level, so much so that *avería* came to be understood according to the peculiar Spanish usage, while in reality it had been defined in the *Partidas* as an instance in which interested parties in a common maritime voyage

[82] P. A. Porras Arboleda, 'La práctica mercantil marítima en el Cantábrico Oriental: Siglos XV–XIX. Primera parte", *Cuadernos de historia del derecho*, 8 (2001): 13–127, 45.

[83] *Partida* V, t. VIII, l. XXVI.

divided up the economic cost of damages incurred by any one of them if this was done to save the ship, the cargo, or both. That is, there was a shared division among merchants themselves of the losses in favour of their common enterprise, though sometimes those who saved the cargo did nothing to ensure that losses were shared, meaning the parties would have to go to court.

However, the term *avería gruesa* appears quite late in Castilian sources. Rather, texts refer to the causes of the damage: jettison or fortuitous causes. Jettison was the most frequent cause for *averías gruesas*. Arising out of the late Middle Ages, these *averías* were never regarded as part of the Royal Treasury because they were always managed by *consulados* or associations (*universidades*). With new trade routes opening up after the discovery of America, a new juridical term appeared: the *avería del tráfico indiano*, whose meaning differs from the earlier terms. The objective of the Americas *avería* was to diminish the risk of ocean travel by creating a mandatory 'security service' financed by individuals, proportionate to their cargo, which would preventatively save their property and reduce the extraordinary risk of piracy. This time the crown took advantage of this opportunity to get involved by taking over the dispatch of the fleets and collection of the contribution or right to the *avería de las Indias*, which was consolidated under the control of the Royal Treasury, though things were handled so badly that management was handed back to the merchants. But the crown was one of the institutions most interested in protecting maritime trade given that regulations regarding this aspect meant greater fiscal resources. In fact, modernization of the navy and the merchant marine was a basic part of the strategy of global defence of Spain's coastal possessions across the Atlantic.

In short, the central concept for the reduction of risk to ocean travel was the *avería*, as a formula for private protection and because it reduced the cost of maritime insurance. Despite some efforts by the crown, management remained in the hands of merchants.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

General Average, Compulsory Contributions and Castilian Normative Practice in the Southern Low Countries (Sixteenth Century)

Gijs Dreijer

This essay focuses on the development of General Average (GA) and varieties of so-called maritime averages (hereafter simply Averages) during the sixteenth century in Bruges and Antwerp, the two major commercial cities

The research for this essay was conducted thanks to funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and Innovation Programme ERC Grant agreement No. 724544: *AveTransRisk—Average—Transaction Costs and Risk Management during the First Globalization (Sixteenth-Eighteenth Centuries)*. The author would like to thank Maria Fusaro, Dave De ruysscher, Jolien Kruit and Lewis Wade for commenting on earlier drafts of this essay.

G. Dreijer (✉)
Leiden University, Leiden, Netherlands
e-mail: g.p.dreijer@hum.leidenuniv.nl

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_8

of the Southern Low Countries.[1] Whereas historians have paid abundant attention to the development of marine insurance in the two cities, other tools of maritime risk management have been virtually neglected.[2] GA was nevertheless a major issue for both local and foreign merchants residing in the Low Countries and was widely used by these groups, as were other varieties of Averages. Resulting from a combination of technological change, more complex trading arrangements, the presence of foreign merchant communities (the so-called *nationes*) and increasing legislative activity by various governmental organisations in the Low Countries, normative rules on GA and other Averages underwent major changes during the sixteenth century. This essay builds on the literature on the history of commercial and maritime law by studying the development of GA and other Averages in the Southern Low Countries during

[1] See for syntheses of the economic history of Bruges and Antwerp: A. Brown and J. Dumolyn eds., *Medieval Bruges, c. 850–c. 1550* (Cambridge 2018); J. Puttevils, *Merchants and Trading in the Sixteenth Century: The Golden Age of Antwerp* (London 2015); Idem, P. Stabel and B. Verbist, 'Een eenduidig pad van modernisering van het handelsverkeer: van het liberale Brugge naar het gereguleerde Antwerpen?', in B. Blondé ed., *Overheid en economie: geschiedenissen van een spanningsveld* (Antwerp 2014), 39–54.

[2] An exception is D. Heirbaut and D. De ruysscher, 'Belgium', in P. Hellwege ed., *Comparative History of Insurance Law in Europe: A Research Agenda* (Berlin 2018), 89–132, there 110–115. See for marine insurance: C. H. Reatz, 'Ordonnances du duc d'Albe sur les assurances maritimes de 1569, 1570, 1571, avec un précis de l'histoire du droit d'assurance maritime dans les Pays-Bas', *Compte-rendu des séances de la commission royale d'histoire*, Deuxième Série, 5 (1878): 41–118; C. Verlinden, 'De zeeverzekeringen der Spaanse kooplui in de Nederlanden gedurende de XVIe eeuw', *Bijdragen voor de Geschiedenis der Nederlanden*, 4 (1948): 191–216; P. Génard, 'Jean-Baptiste Ferrufini et les assurances maritimes à Anvers au XVIe siècle', *Bulletin de la Société de géographie d'Anvers*, 7 (1882): 193–268; L. Couvreur, 'Recht en zeeverzekeringspraktijk in de 17e en 18e eeuwen', *Tijdschrift voor Rechtsgeschiedenis*, 16, 2 (1939): 184–214; C. Wijffels, 'Een Antwerpse zeeverzekeringspolis uit het jaar 1557', *Handelingen van de Koninklijke Commissie voor Geschiedenis*, 63, 1–2 (1948): 95–103; H. L. V. De Groote, *De zeeassurantie te Antwerpen en te Brugge in de zestiende eeuw* (Antwerp 1975); J. P. Van Niekerk, *The Development of the Principles of Insurance Law in the Netherlands from 1500 to 1800* (two volumes) (Hilversum 1998); J. Puttevils and M. Deloof, 'Marketing and Pricing Risk in Marine Insurance in Sixteenth-Century Antwerp', *The Journal of Economic History*, 77/3 (2017): 796–837; D. De ruysscher, 'Antwerp 1490–1590: Insurance and Speculation', in A. P. Leonard ed., *Marine Insurance: Origins and Institutions* (Basingstoke 2016), 79–105; Idem, 'Van kade naar stadhuis: informatieuitwisseling, fraudebestrijding en gereglementeerde innovatie in Antwerpse zeeverzekeringen (ca. 1550–ca. 1700)', *Tijdschrift voor Geschiedenis*, 125/3 (2012): 366–383; Idem and J. Puttevils, 'The Art of Compromise: Legislative Deliberations on Marine Insurance Institutions in Antwerp (c. 1550–c. 1570)', *BMGN-Low Countries Historical Review* 130/3 (2015): 25–49.

this period.[3] This gives valuable insights into maritime risk management and forms a central principle in analyses of transnational maritime law.[4]

Given its reach throughout Europe, GA was what Ron Harris conceptualises as a 'migratory institution'.[5] From a legal perspective, GA moreover serves as an excellent case study for the interplay between various legal cultures, as merchants from England, the Hanseatic cities, France and the Iberian and Italian Peninsulas were present in the Low Countries from the thirteenth century onwards.[6] Iberian, and particularly Castilian, merchants were especially influential in the development of GA and other varieties of Averages during this period in the Southern Low Countries.[7] This essay therefore investigates the extent to which Castilian merchants were able to influence the normative framework and legal practice of GA and other Averages. The essay does so by studying both formal written legal sources and evidence from legal practice. The formal sources include *Ordonnances* by the Habsburg sovereigns regarding maritime law (primarily those of 1551 and 1563), Quinten Weytsen's 1564 legal treatise on GA, the *Hordenanzas* compiled by the Castilian *natio* in Bruges (1569), and Antwerp municipal law of 1608 (the so-called *Compilatae*).[8] The historical evidence from legal practice comes

[3] See for example: V. Piergiovanni ed., *From Lex Mercatoria to Commercial Law* (Berlin 2005). A more recent example: H. Pihlajamäki, A. Cordes, S. Dauchy and D. De ruysscher eds., *Understanding the Sources of Early Modern and Modern Commercial Law: Courts, Statutes, Contracts, and Legal Scholarship* (Leiden/Boston 2018).

[4] J. A. Kruit, 'General Average—General Principle Plus Varying Practical Application equals Uniformity?', *Journal of International Maritime Law*, 21 (2015): 190–202, there 201–202.

[5] See Ron Harris contribution in this volume.

[6] See for example: P. Stabel, 'Kooplieden in de stad', in A. Vandewalle ed., *Hanzekooplui en Medicibankiers: Brugge, wisselmarkt van Europese culturen* (Oostkamp 2002), 85–96; Puttevils, *Merchants and Trading*, 19–48.

[7] For the Iberian *nationes* in the Low Countries: J. Maréchal, 'La colonie espagnole de Bruges du XIVe au XVIe siècle', *Revue du Nord*, 35, 137 (1953): 5–40, there 7–11. For a general overview of foreign merchant communities in the Low Countries: B. Blondé, O. C. Gelderblom and P. Stabel, 'Foreign Merchant Communities in Bruges, Antwerp and Amsterdam', in D. Calabi and S. T. Christensen eds., *Cultural Exchange in Early Modern Europe*, Volume 2: *Cities and Cultural Exchange in Europe, 1400–1700* (Cambridge 2007), 154–174. See for the development of Averages in the Iberian context before 1550 see Ana Maria Rivera Medina contribution in this volume.

[8] See for the *Costuymen*: B. Van Hofstraeten, *Juridisch humanisme en costumiere acculturatie: Inhouds- en vormbepalende factoren van de Antwerpse* Consuetudines Compilatae

from the Castilian consular court, the Antwerp municipal court, the Great Council of Mechlin, the Superior Court (*Grote Raad*) of the Low Countries and notarial archives.[9] Although available sources are, indeed, somewhat skewed towards Castilian merchants, the evidence clearly points towards their enduring influence on the normative practice of both GA and other Averages in the Southern Low Countries.

Averages in the Low Countries: Types and Varieties

In the sixteenth-century Low Countries, merchants had various opportunities to deal with risks and costs within the interest community that underlay a maritime venture (see Fig. 1 and Table 1).[10] First, merchants could deal with risks, the *anticipated*, foreseeable hazards that could befall a maritime venture.[11] They could do so by transferring risk to a third party via insurance before the venture on an individual basis, or by sharing the damages after a voyage by means of GA.[12] Antwerp also allowed merchants to recover GA losses from insurers from the 1540s onwards.[13]

(1608) *en het* Gelderse Land- en Stadrecht (1620) *van het Roermondse Overkwartier* (Maastricht 2008); G. De Longé, *Coutumes du Pays et Duché de Brabant. Quartier d'Anvers, Coutumes de la ville d'Anvers* (Vols. 3&4) (Brussels 1870–1874). For the *Ordonnances*: J.-M. Pardessus, *Collection de lois, maritimes antérieures au XVIIIe siècle* (Tomé IV) (Paris 1828). For the *Hordenanzas*: C. Verlinden, 'Código de seguros marítimos según la costumbre de Amberes: promulgado por le Consulado Español de Brujas en 1569', in *Sección Española del Instituto de Investigaciones Históricas* (Buenos Aires 1947), 146–193. See for Weytsen: Q. Weytsen, *Een Tractaet van Avarien* (Harlingen: L. Vlasboem 1646).

[9] For the Castilian consular court: Municipal Archives of Bruges (hereafter BE-SAB), Oud Archief, Spaanse Natie, inv. 304, V. A., *Libro de pleytos ordinarios*. For the Great Council: Belgian State Archives, Brussels (hereafter BE-ARB), Grote Raad der Nederlanden te Mechelen, *Processen in eerste aanleg*, inv. T 138 & *Registers*, inv. T 107. For the Antwerp court cases: Municipal Archives of Antwerp (hereafter BE-SAA), Vonnisboeken, inv. V#1241–#1256. For notarial archives: BE-SAA, Notariaat Streyt, inv. N#1232 & N#1233; Notariaat's-Hertoghen, inv. N#2070–N#2078.

[10] The interest community is the 'specific community of loss and risk that existed between the various interests on the same ship, engaged in the same common venture', in Van Niekerk, *The Development*, 61–62.

[11] Following Frank Knight's distinction between risk and uncertainty: F. H. Knight, *Risk, Uncertainty, and Profit* (Boston/New York 1921), 247–253.

[12] Van Niekerk, *The Development*, 63 and 76–80.

[13] See: BE-SAA, *Judgement Books*, V1241, fol. 283r–v, for the first known case where this principle was held up.

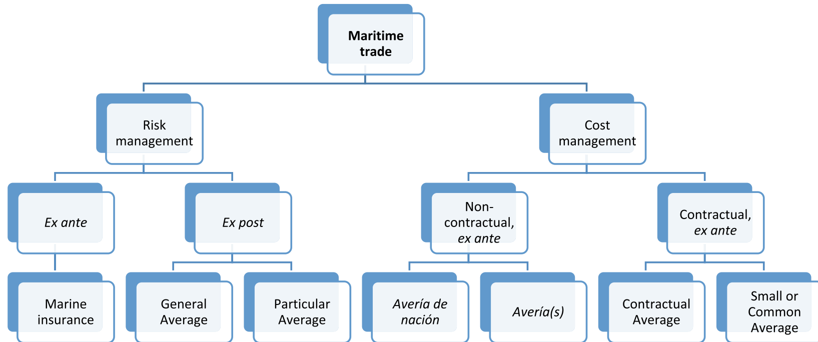


Fig. 1 Varieties of Averages in the Low Countries (fifteenth–sixteenth centuries)

Another option was that a loss fell to the merchant himself, in which there was Particular Average (PA), which simply denoted damages borne by the interested party itself, a distinction with GA made particularly for insurers as they had to distinguish between the two to determine their contribution to damages, clarifying liability.[14]

Second, there were various cost management tools, which in the Low Countries itself often took the form of a contractual obligation for merchants to contribute *pro rata* to the operational costs of the venture, such as ordinary pilotage and port duties, to be paid upon safe arrival as the costs could vary.[15] The Castilian and Biscayer merchants in the Low Countries also developed two cost management tools, the so-called *avería de nación* and the *avería(s)*, both non-contractual compulsory contributions for maritime protection costs, which in turn also lowered risk.[16] The former also covered the common costs of the *natio* such as political

[14] Van Niekerk, *The Development*, 64.

[15] This included Small or Common Average (SA) and Contractual Average (CA). Both were contractual obligations to contribute, on this Van Niekerk, *The Development*, 63–65. Moreover, it contained the Castilian and Biscayer *flete y averías*, which was administered by the *natio*. On this see: R. Fagel, *De Hispano-Vlaamse wereld: de contacten tussen Spanjaarden en Nederlanders 1496–1555* (Nijmegen 1996), 129–138 and 484. This differed slightly from SA and CA in that it was used to drive down costs for the entire *natio* rather than for one venture.

[16] Gilliodts-Van Severen, *Espagne*, 595–596; Fagel, *De Hispano-Vlaamse wereld*, 419.

Table 1 Definitions of varieties of Averages in the Low Countries (sixteenth century)

Variety	*Definition*	*Source(s)*
General Average	Deliberate damage for the common benefit, shared by all in the interest community	1551 *Ordonnance*; Van Niekerk, *The Development*, 63
Small or Common Average	Ordinary operational costs of the venture (e.g. pilotage)	1551 *Ordonnance*; Van Niekerk, *The Development*, 63
Particular Average	Accidental damage, borne by the particular interest involved	1608 *Compilatae*; Van Niekerk, *The Development*, 63–64
Contractual Average	Division of payment of Averages (SA & PA) in freight contract	Van Niekerk, *The Development*, 64–65
Avería de nación	Membership fee and non-contractual, *ex ante* compulsory contribution of the *natio*, partly used for maritime protection costs (artillery & convoy ships). False friends: *massaria* (Genoese) & *direito da nação* (Portuguese)	Gilliodts-Van Severen, *Espagne*, 595–596; Goris, *Étude*, 171–172; Guiard y Laurrauri, *Historia*, 86
Avería(s)	Non-contractual, *ex ante* compulsory contribution for protection costs on the Castile-Low Countries route, probably levied from around 1553 onwards	Fagel, *De Hispano-Vlaamse wereld*, 419; Basas Férnandez, *El Consulado*, 168–171; Céspedes del Castillo, 'La avería', 524; Talavan, 'La avería', 133 & 142; García Garralón, 'The Nautical Republic', 10–11

representation costs and devotional expenses, whilst the latter was specifically established for the Bruges-Low Countries trade. It is important note that this differed from the other Southern European *nationes* such as the Genoese, who did levy a compulsory contribution for common expenses but not for maritime protection costs, a distinction that has not yet been made in the sparse literature.[17]

[17] See Gilliodts-Van Severen, *Espagne*, 595–596; Goris, *Étude*, 171–172. See Section IV for more details.

General Average in the Low Countries and Castilian Normative Practice

Both the legal development and mercantile use of GA and other varieties of Averages accelerated during the sixteenth century. Based on the sources, it may come as no surprise that GA has attracted most attention, as most sources of law (e.g. royal legislation and Antwerp municipal law) dealt primarily with it. Roman law and medieval compilations of maritime law, such as the *Rôles d'Oléron* (c. 1220), primarily contained jettison and mast cutting as the causes for a GA contribution. Edda Frankot has already concluded that local customs regarding GA varied significantly in the North Sea area, for example, regarding the liability of the shipmaster.[18] The principle behind GA was known from a limited number of sources, primarily Roman law and medieval compilations such as the *Rôles d'Oléron*, various Italian municipal laws and the Valencian-Barcelonan *Consolat de Mar* (c. 1435).[19] A fourteenth-century Dutch translation of the *Rôles* used in Bruges was known as the *Vonnisse van Damme*, although different translations existed throughout the Low Countries.[20] In the northern Low Countries, the so-called *Ordonnantie* was published in the early fifteenth century to regulate maritime trade in the Zuiderzee area around Amsterdam, concerning some new rules including extraordinary pilotage as a cause for GA.[21]

[18] E. Frankot, *'Of Laws of Ships and Shipmen': Medieval Maritime Law and its Practice in Urban Northern Europe* (Edinburgh 2012), 108–109.

[19] For the *Consolat de Mar* and the Italian compilations see: O. A. Constable, 'The Problem of Jettison in Medieval Mediterranean Maritime Law', *Journal of Medieval History*, 20/3 (1994): 207–220; K.-F. Krieger, 'Die Entwicklung des Seerechts im Mittelmeerraum von der Antinke bis zum Consolat de Mar', *German Yearbook of International Law*, 16 (1973): 179–208. For the *Rôles d'Oléron* see T. Kiesselbach, 'Der Ursprung der rôles d'Oléron und des Seerechts von Damme', *Hansische Geschichtblätter*, 12 (1906): 1–60; K.-F. Krieger, *Ursprung und Wurzeln der Rôles d'Oléron* (Cologne/Vienna 1970).

[20] D. Van den Aauweele, 'Zeerecht', in G. Asaert et al., *Maritieme Geschiedenis der Nederlanden*, 4 vols. (Bussum 1976–1978) 1: 220–226, there 221–223; Idem, 'Het Brugse zeerecht, schakel in een supranationaal geheel', in V. Vermeersch ed., *Brugge en de zee: van Bryggia tot Zeebrugge* (Antwerp 1982), 145–155, there 147–150.

[21] G. Landwehr, 'Seerecht im Hanseraum im 15. Jahrhundert: die Hanzerezesse, die Vonnesse von Damme und die Ordinancie der Zuidersee im Flandrischen Copiar Nr.9', in C. Jahnke ed., *Seerecht im Hanseraum des 15. Jahrhunderts. Edition und Kommentar zur Flandrischen Copiar Nr. 9* (Lübeck 2003), 95–117, there 106–108.

In the sixteenth-century Low Countries, a combination of the *Vonnisse*, the *Ordonnantie* and Lübeck municipal law known as the Wisby Laws, compiled by Hanseatic merchants in the Low Countries, became especially influential as the 'customary' maritime law of the region.[22] The most important development in these new compilations was that some costs to prevent greater damages were included as a cause for a GA contribution (e.g. extraordinary pilotage or voluntarily running aground, known as *strangen*), rather than only direct damages.[23]

In the sixteenth-century Low Countries, various influences and traditions on GA incentivised its development.[24] Since various sources of legal norms (e.g. customs, compilations of maritime law, municipal law and royal legislation) overlapped and existed next to each other, this was not necessarily a smooth process. Indeed, this legal-pluralistic nature of legal norms initiated lengthy negotiations and full-scale harmonisation was never attained. Yet the central government was remarkably successful in synthesising existing normative frameworks into a set of rules on GA during this period.[25] Whereas the medieval compilations primarily included rules of thumb (e.g. 'jettison leads to a GA contribution'), Charles V's 1551 *Ordonnance* and Antwerp municipal law, particularly its *Compilatae* of 1608, provided proper definitions of the instrument, providing legal security.[26] Moreover, the increased use of insurance also

[22] Frankot, '*Of Laws of Ships*', 86–88; G. Landwehr, *Das Seerecht der Hanse (1365–1614): vom Schiffordungsrecht zum Seehandelsrecht* (Hamburg 2003).

[23] Frankot, '*Of Laws of Ships*', 30–32.

[24] For example, the Castilian tradition and the Hanseatic tradition, for the latter: G. Landwehr, *Die Haverei in den mittelalterlichten deutschen Seerechtsquellen* (Hamburg 1985).

[25] In marked contrast to the negotiations over the use of marine insurance, on this see: De ruysscher & Puttevils, 'The Art of Compromise'. For the negotiations over the 1550 and 1551 *Ordonnances*: L. H. J. Sicking, 'Les marchands espagnols et portugais aux Pays-Bas et la navigation à l'époque de Charles Quint: gestion des risques et législation', *Publications du Centre Européen d'Etudes Bourguignonnes*, 51 (2011): 253–274; Idem, 'Los grupos de intereses marítimos de la Península Ibérica en la ciudad de Amberes: la gestión de riesgos y la navigación en el siglo XVI', in J. A. S. Telechea, M. Bochacha and A. A. Andrade eds., *Gentes de mar en la ciudad Atlántica medieval* (Logroño 2012), 167–199.

[26] D. De ruysscher, 'Maxims, Principles and Legal Change: Maritime Law in Merchant and Legal Culture (Low Countries, 16th Century', *Zeitschrift der Savigny-Stiftung für Rechtsgeschichte. Germanistische Abteilung*, 138, 1 (2021): 260–275.

needed to be reflected in formal law, especially as Southern European financiers dominated the insurance industry in Antwerp around 1550.[27]

GA played a major role in larger questions over the protection of the important Iberian-Low Countries trade, and hence also concerned the other Iberian merchant communities. Around 1550, threats from French and Scottish pirates obliged the Habsburg ruler Charles V to act. He issued two *Ordonnances* on the subject in 1550 and 1551.[28] Charles V and his civil servant Cornelis de Schepper preferred better-equipped ships to insurance to combat pirate attacks, seeing insurance as a speculative tool that did nothing to protect ships. De Schepper made various proposals to that goal, such as obligatory artillery and a tax to pay for convoy ships.[29] The 1551 *Ordonnance* was the first time GA (*groote avarye*) was actually defined. Article 41 of the *Ordonnance* stated that GA could be declared when damages were incurred to save ship and cargo, shared by means of the 'customs of the sea' (*costuymen vander zee*).[30] SA (*gemeyne avarye*) was also defined in this *Ordonnance* as the common operational expenses associated with the venture.[31] Relentless lobbying by Castilian and Portuguese merchants, who preferred the use of insurance and GA as a solution over forced taxes, led to the inclusion of costs associated with fighting off pirate attacks in GA, for example costs associated with fighting off pirates were allowed in GA, such as the costs for treating a wounded seaman.[32] Since Roman law already allowed ransoms paid to pirates to save the voyage as a cause for a contribution by all merchants involved in the venture, this made it easier for the central government to accept this premise.[33] Moreover, the costs arising from pirate attacks

[27] Van Niekerk, *The Development*, 76–80; Puttevils and Deloof, 'Marketing and Pricing Risk'.

[28] L. H. J. Sicking, *Neptune and the Netherlands: State, Economy, and War at Sea in the Renaissance* (Leiden/Boston 2004), 242–279.

[29] Ibidem, 247–253.

[30] 1551 *Ordonnance*, Art. 41. The 1551 *Ordonnance* can be found in J. Lameere ed., *Recueil des ordonnances des Pays-Bas. Deuxième série, 1506–1700* (Vol. 6) (Brussels 1922), 163–177; see also: Kruit, 'General Average', 198–199.

[31] 1551 *Ordonnance*, Art. 42.

[32] For the exact arguments employed: Sicking, 'Les marchands espagnols et portugais'; Idem, 'Los grupos de intereses marítimos'; 1551 *Ordonnance*, Art. 28.

[33] This is stated in Digest 14.2.2.3. The edition used here is: J. S. Spruit et al. eds., *Corpus Iuris Civilis: tekst en vertaling (vol. III, Digesten 11–24)* (The Hague 1996).

were not insurable under the 1551 *Ordonnance*, making GA an attractive option for the central government to deal with the risks.

Charles V's son Philip II elaborated on the 1551 *Ordonnance* by promulgating the 1563 *Ordonnance*, which regulated all aspects of maritime law including GA and insurance. It stated that GA could be primarily declared after one of the following three acts: jettison (*werpen*), cutting mast and/or ropes (*kerven*) or voluntarily running aground (*strangen*), although it contained multiple additional acts such as extraordinary pilotage, similar to the medieval compilations such as the Amsterdam *Ordonnantie*.[34] Quintin Weytsen's 1564 legal treatise, which acted as an intellectual justification for the 1563 *Ordonnance*, stated the same.[35] This all followed common local practice, as did other rules, for example, on the negligence of the shipmaster. Building on the 1551 *Ordonnance*, it allowed expenses for the funeral of a dead sailor fighting off pirates, and the remainder of his wages to be paid to his widow under GA.[36] Weytsen even stated that voluntary payments or partial losses to pirates after negotiations (i.e. to diminish greater losses) could be brought into GA.[37] Again, piracy played a major role in this *Ordonnance*. In sixteenth-century Antwerp, it was generally possible to insure against cargo losses by pirate attacks, a development the central government unsuccessfully resisted.[38]

Given the 'composite monarchy' of the Habsburgs, it may be no surprise that some of these developments were inspired by Castilian legislation or normative practice.[39] Even whilst the 1563 *Ordonnance* did not state anything about the liability of insurers to pay for GA claims, Castilian merchants pushed for the acceptance of this principle in the Low Countries. Following their successful lobbying activities regarding the 1550 and 1551 *Ordonnances*, the Castilian *natio* published a collection

[34] 1563 *Ordonnance*, Title IV, Art. 9. The 1563 *Ordonnance* can be found in J.-M. Pardessus, *Collection de lois, maritimes antérieures au XVIIIe siècle* (Vol. IV) (Paris 1837), 64–102.

[35] Weytsen, *Een Tractaet van Avarien*, 2–3.

[36] Ibidem, 6–7; 1563 *Ordonnance*, Title IV, Art. 2.

[37] Ibidem, 6.

[38] D. De ruysscher, *"Naer het Romeinsch recht alsmede den stiel mercantiel". Handel en recht in de Antwerpse rechtbank (16e-17e eeuw)* (Kortrijk 2009), 286–287.

[39] G. Rossi, *Insurance in Elizabethan England: the London Code* (Cambridge 2016), 148–157.

of rules on Castilian insurance and GA customs, the so-called *Hordenanzas* (1569). It was published in the wake of the 1569 *Ordonnance* of Philip II and his representative the Duke of Alva which prohibited insurance.[40] Charles Verlinden, who published a transcription of the French and Castilian versions, accepted the claim made in the *Hordenanzas* that it followed the customs of the Antwerp and London stock exchanges, but this claim has been sharply disputed by more recent works.[41] For example, Guido Rossi has pointed to its strong similarities with the 1538 insurance *Ordonnance* of the Burgos *Consulado*, as well as legislation for the Seville *Casa de la Contratación* from 1556 and the 1560 *Ordonnance* of the Bilbao *Consulado*.[42]

The argument that these 'customs' originated at the Antwerp bourse was most likely an effort to gain legitimacy rather than the actual truth. Yet the *Hordenanzas* proved very influential in the Low Countries, for example, in Antwerp municipal law. On the subject of GA, the major contribution of the *Hordenanzas* was to acknowledge the liability of insurers to pay for jettisoned, insured cargo.[43] This was both the case when an insured good was jettisoned and the insurer had to pay for the remainder of the damage after the merchant was reimbursed by the others in the interest community by means of GA, and when insured cargo was used to determine the GA contribution towards another persons' loss.[44] Antwerp legal practice already accepted this principle in the late 1540s.[45] It is likely that given the Castilian influence in Antwerp this idea was drawn from Castilian normative practice, although we cannot rule out

[40] See for the tense negotiations over insurance: De ruysscher & Puttevils, 'The Art of Compromise'.

[41] Verlinden, 'Código de seguros marítimos'; De Groote, *De zeeverzekering*, 52–58; S. M. Coronas González, 'La Ordenenza de seguros maritimos del Consulado de la Nacion de España en Brujas', *Anuario de Historia del Derecho español*, 54 (1984): 385–407, there 390–391, Footnote 18.

[42] Rossi, *Insurance in Elizabethan England*, 151–153. See also Heirbaut & De ruysscher, 'Belgium', 122–123.

[43] 1569 *Hordenanzas*, Title X, Art. 6. The text is in: Verlinden, 'Código de seguros marítimos'.

[44] Van Niekerk, *The Development*, 76–80.

[45] See: BE-SAA, *Judgement Books*, V1241, fol. 283r–v, for the first known case where this principle was held up.

Italian influences either, as in most medieval Italian city-states insurers were also held liable for GA claims.[46]

Antwerp published four versions of the so-called *Costuymen* (compilations of municipal customs) during the sixteenth and early seventeenth century (1548, 1570, 1582 and 1608).[47] The latter two are regarded as important legal milestones, with the 1608 *Compilatae* containing some 500 articles on maritime law, including on GA. The 1608 *Compilatae* followed the 1563 *Ordonnance* on most matters regarding GA, including the costs for fighting off pirates as a cause for contribution; on the liability of the insurer for GA claims, it closely resembled the *Hordenanzas*.[48] It also contained new rules, however, for example, the tripartite distinction between GA, SA and PA.[49] PA was, following the growing importance of insurers in sixteenth-century Antwerp, introduced to clarify the liability of insurers when damages befell a venture.[50] In the *Compilatae*, cargo given up in negotiations with pirates could be cause for a contribution, echoing Weytsen.[51]

As a result, the *Compilatae* should be considered as a culmination of developments that took place in the sixteenth-century Low Countries, offering an expansive view of what GA constituted. A significant number of these innovations were inspired by Castilian (and broader Iberian) normative practice, differing in one important respect: the liability of the shipmaster. In the Low Countries, the trends bent towards a strict liability of the shipmaster, which could for example be observed in the

[46] A. Iodice and L. Piccinno, 'Managing Shipping Risk: General Average and Marine Insurance in Early Modern Genoa', in: P. Hellwege and G. Rossi eds., *Maritime Risk Management: Essays on the History of Marine Insurance, General Average and Sea Loan* (Berlin 2021), 83–110, there 88–93.

[47] For the background to this 'homologation' process see: J. Gillissen, 'Phases de la codification et de l'homologation des coutumes dans les XVII provinces des Pays-Bas', *Tijdschrift voor Rechtsgeschiedenis*, 18 (1950): 36–67. For Antwerp process: De ruysscher, "*Naer het Romeinsch recht*", 48–68.

[48] Van Hofstraeten, *Juridisch humanisme*, 112–117.

[49] 1608 *Compilatae*, Title VIII, Art. 66. The text of the *Compilatae* can be found in G. De Longé, *Coutumes de la ville d'Anvers* (Vols. 3/4); Part 4 of the *Compilatae* deals with maritime law. See Vol. 4, Part 4, Title VIII (86–171) for the chapters on GA and bottomry & Vol. 4, Part 4, Title XI (pp. 198–333) for the titles on insurance.

[50] Van Niekerk, *The Development*, 63–64.

[51] 1608 *Compilatae*, Title VIII, Art. 99.

Table 2 GA contributions paid by Juan Henriquez (1562–1563)

Henriquez as underwriter of marine insurance	*£ Fl. gr*
Marine insurance premiums	763
Payment of Averages	–112
Payment of total losses	–302
Total profit	349

Source Puttevils and Deloof, 'Marketing and Pricing Risk', 824

1563 *Ordonnance*.[52] The Antwerp *Compilatae* of 1608 contained similar clauses, for example, noting that merchants could choose how a ship-master had to contribute to the GA declaration (via his freight, the most common option, or via the value of the ship, in case he owned the ship).[53] In Castile, the liability of the master was looser since the master could choose how he should contribute to GA.[54] This was a clause already found in the *Consolat de Mar*.[55]

Evidence from legal practice and notarial records confirms that Castilian normative practice was already influential in Antwerp mercantile practice often long before a formal source of law incorporated the rule. The most important example was the insurability of GA contributions, which was, as noted above, drawn from Castilian legislation such as the 1538 Burgos *Ordonnance*. Evidence for example comes from the ledgers of the Antwerp-based Castilian insurer Juan Henriquez from 1562 to 1563. Henriquez set aside some 15% of premiums paid to him to pay for GA claims (see Table 2).[56] As Henriquez was the largest insurer in Antwerp, this was likely representative for the insurance business as a whole.[57]

[52] 1563 *Ordonnance*, Title IV, Arts. 1–2 & 11.

[53] 1608 *Compilatae*, Part 4, Title VIII, Arts 28, 85 & 143.

[54] 1560 Bilbao *Ordonnance*, Art. 47. The 1560 Bilbao *Ordonnance* can be found in Pardessus, *Collection de lois* (Vol. 6), 195–252.

[55] Constable, 'The Problem of Jettison', 217–220.

[56] Puttevils & Deloof, 'Marketing and Pricing Risk', 824.

[57] H. Casado Alonso, 'Juan Henriquez, un corredor de seguros de Amberes a mediados del Siglo XVI', in J. C. Pérez Manrique ed., *Palabras de archivo: homenaje a Milagros Moratinos Palomero* (Burgos 2018), 49–68.

Moreover, both the Castilian consular court and the Antwerp municipal court in the 1540s and 1550s already accepted the liability for insurers to cover GA claims. One case from the Castilian consular court, dating from 1556, for example, concerned a ship coming from Portugalete (Biscay). The shipmaster jettisoned salt whilst also incurring damages to the ship.[58] GA was declared after a request by the shipmaster, who filed two cases. In the first case, he made sure that the insurers of cargo and ship would pay for the damages, before filing the actual GA claim with the consuls. This ensured no one could opt out of the contribution.

In Antwerp, twenty-five out of the forty GA cases heard between 1545 and 1582 dealt with insurers unwilling to pay for GA claims or requests to force an insurer to pay.[59] No single insurer won a case, suggesting acceptance by the Antwerp municipal court on the matter. One 1567 case gives a clear view on the matter, dealing with a pirate attack and its fall-out for insurers.[60] A Portuguese ship sailing from Antwerp to Lisbon was heavily damaged in a pirate attack before the coast of France, losing all cargo. The pirates also forced the master to set sail to an unnamed French port, where they released master and crew. The master immediately abandoned the ship to the insurer, meaning the ship was now the insurer's property (although still in the hands of the pirates).[61] Some of the cargo had been lost due to a jettison act by the master, which according to him had been an attempt to sail faster and escape the pirates. Hence, he filed for GA for this lost cargo, with the support of the merchants involved in the venture. Although the insurers agreed with the act of abandonment, they were unwilling to pay for the GA claim as well, citing the failure of the attempt: and strictly speaking, they were right. Yet the court agreed with

[58] BE-SAB, Spaanse Natie, *Libro de pleitos ordinarios*, fol. 150v–151r & 151v–152r.

[59] BE-SAA, *Judgement Books*, V1241, fol. 283r–v; V1242, fol. 127r; V1244, fol. 128r–130r; V1245, fol. 120r–121r & 174r–v; V1246, fol. 62r–v; V1247, fol. 82v–84v, 148r–151r & 269r–v; V1249, fol. 1r–v, 6v–7v, 130r, 204r–205r; V1250, fol. 139r, 150v–151r & 241r–v; V1251, fol. 45v–46v, 71v–72r & 104r–v; V1252, fol. 78r–v & 168r–v; V1254, fol. 107r–v & 147v–148v; V1255, fol. 221v–225r; V1256, fol. 58v–59v.

[60] Idem, V1249 fol. 6v–7v.

[61] For the rules regarding abandonment: G. Rossi, 'The Abandonment to the Insurers in Sixteenth Century Insurance Practice: Comparative Remarks and (a few) Methodological Notes', in Pihlajamäki et al. eds., *Understanding the Sources*, 87–118, there 91–95.

the shipmaster and the merchants, citing the need for an equitable solution for which the insurers were held to contribute: moreover, the act of jettison was separate from the abandonment.

The Spanish Compulsory Contributions and the Issue of Protection Costs

Spanish non-contractual, *ex ante* compulsory contributions have primarily received attention in the framework of the New World trade, as the role of the so-called *avería* has attracted the attention of historians in Spain and abroad.[62] Yet before the 1521 establishment of the *avería*, in the Low Countries both the Castilian and the Biscayer *nationes* already used two compulsory contributions as cost management tools to cover protection costs, primarily artillery and convoy ships. Protection costs, in the definition of Frederic Lane, are the costs used to protect a monopolistic trade, so that so-called protection rents could flow from the initial investment in protection.[63] One of the two varieties in the Low Countries was the *avería de nación*, which flowed from the privileges the Castilian and Biscayer *nationes* received. It was an annual contribution paid by the members to cover both ordinary expenses (e.g. legal fees) and maritime protection costs (artillery and convoy ships).

The present literature has often conflated the *avería de nación* with the compulsory contributions of other Southern European *nationes*, such as the Portuguese *direito da nação* and the Genoese *massaria*, lumping them all together under the name *droit d'avarie* ('right of average').[64] Yet a close reading of the privileges shows that only the Castilian and Biscayers used their annual contribution for maritime protection costs

[62] For example: G. Céspedes del Castillo, 'La Avería en el Comercio de Indias', *Anuario de Estudios Americanos*, 2 (1945): 515–698; M. Luque Talavan, 'La avería en el tráfico marítimo-mercantil indiano: notas para su studio (siglos XVI–XVIII)', *Revista Complutense de Historia de América*, 24 (1998): 113–145; C. H. Haring, *Trade and Navigation between Spain and the Indies in the Time of the Hapsburgs* (Cambridge, MA 1918), 67–76.

[63] F. C. Lane, *Profits from Power: Readings in Protection Costs and Violence-Controlling Enterprises* (New York 1979), 12–22.

[64] Gilliodts-Van Severen, *Espagne*, 595–596.

besides ordinary expenses.[65] Even the Catalan-Aragonese *natio* did not use the annual contribution for maritime protection costs.[66]

The Spanish anomaly is explained by the particular nature of the Spanish wool trade with the Low Countries. The merchant guilds, the so-called *Consulados*, were in charge of equipping the fleets for the outward journey to transport wool to the Low Countries.[67] The *nationes* were, at least formally, satellites of these *Consulados*: the Castilian *natio* of the Burgos *Consulado*, the Biscayers of the Bilbao *Consulado*, and hence responsible for the return journeys.[68] The two non-contractual compulsory contributions were levied before a voyage and used to pay for the protection costs for the ship(s), primarily artillery and convoy ships as this was obligated by the Castilian Crown. The *avería de nación* was of course primarily used for ordinary expenses of the *natio*, with only a small portion used for the maritime protection costs. Next to the *avería de nación*, another contribution very similar to the Seville *avería* and also called the *avería(s)*, was established in the wake of the promulgation of the 1551 *Ordonnance* to cover the maritime protection costs for the Spain-Low Countries route.[69] Material about the *avería(s)* is extremely scant, as there only few records dealing specifically with this variety.[70]

Luckily, much more archival material is available about the *avería de nación*, as it was a privilege granted by various authorities (e.g. the municipality of Bruges, the Burgundian sovereign and the sovereign of the home region) to the *natio* and hence recorded by various parties in archives. Moreover, there was plenty of litigation before the Bruges municipal court and the Great Council, the superior court of the Low Countries, offering a clear view on the practical problems that arose.

[65] See Chapter 6 of my dissertation for the close reading of all the privileges of the Southern European *nationes*.

[66] As the following two cases shows: Gilliods-Van Severen, *Espagne*, 65–66 & 137–139.

[67] Fagel, *De Hispano-Vlaamse wereld*, 135–162.

[68] See for the *Consulados*: R. S. Smith, *The Spanish Guild Merchant: A History of the Consulado, 1250–1700* (Durham, NC 1940).

[69] Fagel, *De Hispano-Vlaamse wereld*, 419.

[70] See for the variant in the Low Countries: Ibidem. See for a similar structure in the context of the Spanish *Consulados*: M. Basas Férnandez, *El Consulado de Burgos en el Siglo XVI* (Madrid 1963), 168–171; Céspedes del Castillo, 'La Avería en el Comercio de Indias', 524; Luque Talavan, 'La avería', 133 & 142; and the contribution of Marta García Garralón in this volume.

Although the principle was rather straightforward, questions arose during the fifteenth century in Bruges about joint ventures with merchant of other *nationes*. If Genoese merchants used Castilian-owned ships to transport their cargo, could the Castilian consuls levy the *avería de nación* on them to contribute to the maritime protection costs? In fifteenth-century Bruges, the answer was generally yes, as litigation from 1472 and 1482 for example shows.[71] Interestingly, this was only the case when Italian merchants (e.g. Genoese or Florentines) were involved, but not when other Spanish merchants (e.g. Catalan-Aragonese) were involved.[72]

We will focus here on one specific litigation process on the *avería de nación* which is especially rich in detail. The case was initiated by the consuls of the Biscayer *natio* in Bruges in 1511 and, as a first instance case, again in 1515 at the Great Council.[73] Since the records contain all the arguments on the *avería de nación*, it offers us a unique insight into the contemporary arguments on the compulsory contribution. The Castilians were active participants in this process as they started concurrent litigation in Antwerp and before the Great Council, again underlining their important role in the development of Averages in the Low Countries. Merchants rarely went to regional or central superior courts for commercial cases owing to their slow proceedings and high costs.[74] The *avería de nación* was however different, since the *nationes* went to great lengths to preserve their privileges.[75] At the Great Council, foreign

[71] Gilliodts-Van Severen, *Espagne*, 111 & 122–124.

[72] Ibidem, 65–66 & 137–139.

[73] The case is shortly described in A. A. Wijffels, 'Justitia in Commerciis: Public Governance and Commercial Litigation before the Great Council of Mechlin in the Late Fifteenth and Early Sixteenth Century', in Pihlajamäki et al. eds., *Understanding the Sources*, 32–54, there 48–49. The first instance Great Council case is in Gilliodts-Van Severen, *Espagne*, 230–240. See also: BE-ARB, Grote Raad der Nederlanden te Mechelen, *Processen in eerste aanleg*, nrs. 294 & 3519; Idem, *Registers*, nrs. 815.12 (fol. 70–88), 815.13 (fol. 90–106), 818.28 (pp. 283–309) 818.35 (pp. 391–405), 823.68 (pp. 547–560), 824.83 (pp. 749–755), 826.68 (pp. 567–574).

[74] Gelderblom, *Cities of Commerce: the Institutional Foundations of International Trade in the Low Countries, 1250–1650* (Princeton 2013), 127; Puttevils, *Merchants and Trading*, 145–147.

[75] In line with the arguments presented in J. Dumolyn and B. Lambert, 'Cities of Commerce, Cities of Constraints: International Trade, Government Institutions and the Law of Commerce in Later Medieval Bruges and the Burgundian State', *Tijdschrift voor Sociale en Economische Geschiedenis*, 11/4 (2014): 89–102.

merchants were privileged litigants.[76] Moreover, the court had jurisdiction over cases of maritime transport, including GA and by extension also other Averages.[77]

In 1511, the Biscayer consuls initiated a case before the Bruges municipal court against three Genoese and one Florentine merchant.[78] Concurrently, various Castilian merchants, backed by their consuls, started litigation at the Antwerp municipal court.[79] Both cases dealt with the question of whether the Italian merchants were liable to pay the *avería de nación* to one of the Spanish *nationes* when using the latter's ships. In Bruges, the Biscayer consuls won the case, allowing them to levy the compulsory contribution. The Antwerp municipal court, ruling against the Castilian merchants acting as proxies of the Biscayers and Castilians, in contrast decided that since the Genoese were *de facto* based in Antwerp since 1509, the litigation started in Bruges did not concern them on jurisdictional grounds. The Bruges municipal court was hence unable to enforce its ruling owing to those very same jurisdictional problems, even if it could refer to precedents on the same subject matter. Because several Genoese merchants were still based in Bruges and the *natio* itself was based there *de jure* as well, the Genoese consuls filed an appeal against the Bruges ruling at the Great Council to absolve them of liability, supported by the consuls of Lucca, Florence and Venice, as the latter were also impacted. The Great Council decided to hear the case as a first instance case, since the case posed significant jurisdictional problems.[80] Whilst the case centred on the payment of individual merchants, the Great Council allowed the Biscayer consuls to file the case against the Genoese consuls to decide on the principle. At the same time, the Castilian consuls launched a separate case on the same subject to guarantee this privilege against the decision by the Antwerp municipal court, which the Great Council also decided to hear as a first instance case.[81]

[76] C. H. Van Rhee, *Litigation and Legislation: Civil Procedure at First Instance in the Great Council for the Netherlands in Malines (1522–1559)* (Brussels 1997), 41.

[77] Ibidem, 42–43.

[78] BE-ARB, Grote Raad, *Processen in eerste aanleg*, nr. 294 (12/07/1511).

[79] Ibidem (28/08/1515). This was probably already an appeal given the date of the case, but the actual file from Antwerp has unfortunately not survived.

[80] Ibidem, *Registers*, nr. 815.12 (fol. 70–88).

[81] Idem, *Registers*, nr. 815.13 (fol. 90–106).

The lengthy arguments written down by the two parties are invaluable in informing us about the nature of the *avería de nación*. The Biscayers presented the differences between three variations of maritime Averages in their arguments. They explained that there were three varieties of maritime Averages: GA plus SA (*grosse et commune avarie*); PA (*petite*); and the compulsory contribution of the *natio* (*denier de nation*).[82] Whilst this distinction is fairly close to the divisions presented in Table 1, no distinction was yet made between risk and cost management structures. The Biscayers explained that the *avería de nación* was primarily used for the maintenance of the chapel of the *natio*, but also for maritime protection costs such as convoy ships.[83] They argued that since the protection measures benefited everyone, it was fair to expect those using their ships for transport to pay the compulsory contribution.[84] As evidence, they cited a number of precedents: the 1368 privileges of the Castilians, 'ancient usages and customs',[85] an arbitrational sentence of 1454 admitting this principle as reciprocal, several court records from 1458, 1471, 1481, 1482 and 1490,[86] a 1492 agreement between the Spanish and Italian *nationes* on the subject[87] and their latest privileges of 1494.[88] In the concurrent case launched by the Castilians, their consuls explicitly referred to precedents from the Bruges municipal court and the fact that the Biscayers won their case in Bruges.[89] Moreover, the Castilians argued that both the municipal law of Bruges and the aldermen of Middelburg (Zeeland) had accepted the principle that Italian merchants had to contribute to the *avería de nación* as they profited from the protection arrangements.[90] In both cases, the Genoese argued that the compulsory contribution could be levied on individual merchants in exceptional cases, but that the cited cases did not constitute a precedent.[91] In the case

[82] Gilliodts-Van Severen, *Espagne*, 231–232.

[83] Ibidem, 231.

[84] Ibidem.

[85] Ibidem.

[86] Ibidem.

[87] Ibidem. Unfortunately, this agreement is not in the case file.

[88] Ibidem, 233.

[89] BE-ARB, Grote Raad, *Registers*, 815.13, fol. 91r.

[90] Ibidem, fol. 93r.

[91] Ibidem, fol. 100r–v. See also: Gilliodts-Van Severen, *Espagne*, 233–234.

launched by the Castilians, the Genoese also argued that the decision of the Bruges municipal court unduly infringed on the freedom of the *natio* and their members.[92]

The Biscayers, in a lengthy answer, elaborated upon the legal basis of the *avería de nación*. They argued that they did not seek control over individual Genoese merchants, but that the freight contract signed by a Biscayer shipmaster constituted the legal basis to levy the *avería de nación*.[93] Given the fact that individual Genoese merchants had consented to the voyage by means of the freight contract, they also by implication agreed to contribute to the mutual protection costs as a contractual obligation.[94] According to the Biscayer consuls, the Bruges municipal court precedents showed that this was enough to consider the compulsory contribution binding for the Genoese merchants, citing the 1472 and 1482 decisions.[95] The Great Council decided in both cases that the Genoese had to pay for the *avería de nación*, although it acquitted the Florentine merchant in the first case for he was only a junior partner in the case, having commissioned the Genoese merchants to act on his behalf.[96] In the second case, the Great Council, decided that the Genoese had to pay for the *avería de nación* of the Castilians as well in future cases, referring to the 1492 agreement (which has unfortunately not survived) and the precedents from Bruges. However, the Florentine, Venetian and Lucchese *nationes* were absolved from paying the compulsory contribution for unknown reasons.[97]

Although the Biscayers won the first instance case, a true legal thriller followed the verdicts of the Great Council of 1515. Among other things, the Genoese filed a petition with the Secret Council in 1515 to annul the verdicts of the Great Council. In 1518, the Secret Council, an advice council to the sovereign which could hear petitions against Great

[92] Ibidem, fol. 101r–v.

[93] Gilliodts-Van Severen, *Espagne*, 236.

[94] Ibidem.

[95] Ibidem.

[96] Ibidem, 239–240.

[97] BE-ARB, Grote Raad, *Registers*, nr. 815.13, fol. 105v.

Council decisions,[98] filed an 'advice' ordering the Great Council to rehear the case, which only happened in 1524 and 1525.[99] Although the Great Council subsequently ruled in favour of the Biscayers on multiple occasions, the Genoese were still litigating on technicalities during the 1540s.[100] Legal practice in the fifteenth and early sixteenth centuries offered an expansive view of the *avería de nación*, allowing two 'Spanish' *nationes* to levy the compulsory contribution on Italian merchants using their ships for cargo transport. The case studied here shows the importance attached by the Spanish and Italian *nationes* on the subject, putting the issue of protection costs at the core of the development of Averages in the Spanish case. Although no new litigation can be found after the 1530s, the *avería de nación* was clearly of great importance for the two Spanish *nationes* between roughly 1460 and 1550. Again, the Castilians (and Biscayers) were instrumental in pushing the limits of the instrument and influencing its normative development.

Conclusion

The development of GA in the sixteenth-century Low Countries was to a substantial extent inspired by Castilian normative practice or incentivised by the lobbying activities of Iberian merchants. Uninsurable costs arising from pirate attacks originated in Castilian normative practice, and the liability of insurers to pay for GA claims was also likely drawn from Castilian practice, as evidenced (for example) by the records of the Castilian Antwerp-based insurer Juan Henriquez. From around 1550 onwards, formal sources of law, such as the Habsburg *Ordonnances*, Weytsen's treatise, the *Hordenanzas* and Antwerp municipal law incorporated these developments into written sources of law. Given that Castile and the Low Countries shared a ruler up to 1581 (and much longer in the case of the Southern Netherlands), it should not be exactly surprising that the Castilian normative framework was so influential in the sixteenth-century Low Countries. Castilian merchants moreover developed two

[98] H. De Schepper, 'De Grote Raad van Mechelen, hoogste rechtscollege in de Nederlanden?', *Bijdragen en Mededelingen voor de Geschiedenis der Nederlanden*, 93/3 (1978): 389–411.

[99] BE-ARB, Grote Raad, *Processen*, nr. 294 (17/04/1515) & (24/03/1518); Idem, *Registers*, nrs. 823.68 (pp. 547–560) & 824.83 (pp. 749–755).

[100] For example: Ibidem (14/05/1542, 15/11/1544 & 28/03/1545).

non-contractual, *ex ante* compulsory contributions to the Low Countries, the *avería de naçion* and the *avería(s)*, to cover maritime protection costs such as artillery and convoy ships which in turn also lowered risk. The Castilian and Biscayer *nationes* actively litigated to safeguard the *avería de naçion* privilege, showing the importance of Averages in creating protection rents. The influence of Castilian normative practice on GA and other forms of Averages was therefore of great significance in the Southern Low Countries during the sixteenth century, marking the long-lasting impact of the Castilian trade with the Low Countries in both formal law and mercantile practice.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

The Nautical Republic of the *Carrera de Indias*: Commerce, Navigation, *Casos Fortuitos* and *Avería Gruesa* in the Sixteenth Century

Marta García Garralón

> "…when one sails, one entrusts one's fortunes
> and things to the wind and the waves, and one's life
> is three or four fingers away from death,
> as close as a ship plank is wide".[1]
>
> Diego García de Palacio, *Instrvcion Navthica*

[1] Diego García de Palacio, *Instrvcion Navthica, para el bven uso y regimiento de las Naos, su traça y gouierno conforme a la altura de Mexico* (México: Pedro Ocharte, 1587), 2.

The research for this essay was conducted thanks to funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and Innovation Programme ERC Grant agreement No. 724544: *AveTransRisk—Average—Transaction Costs and Risk Management during the First Globalization (Sixteenth-Eighteenth Centuries)*. Translated by Ruth MacKay.

M. García Garralón (✉)
Universidad Nacional de Educación a Distancia—UNED, Madrid, Spain
e-mail: mggarralon@geo.uned.es

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_9

This essay analyzes some aspects of the relationships between merchants and seamen as they emerge from the handling of General Averages—*averías gruesas*—in the *Carrera de Indias*. The practice of General Average was underpinned by the concept that mutual aid and assistance were needed in shipping, even when travelling in convoys as was the case in the *Carrera*. The analysis of GA litigation in the Spanish Atlantic is a privileged window into the conflicts between two categories—merchants and seamen—and those institutions, such as the *Casa de Contratación* and those Crown officers who regulated Atlantic trade and navigation.

The *Carrera de Indias* (sea route from Spain to America) was a multidimensional system lasting from the sixteenth century to the start of the nineteenth century. It was a highly dynamic maritime network built upon a regime of fleets and navies, usually sailing in convoy that was already consolidated by the 1560s.[2]

During the early modern era, the Indies route and the Atlantic were spaces in which the Hispanic monarchy forged a very specific economic, social, and cultural model of trade. This model developed its own norms and casuistry and was an interesting example of early globalization.[3] Institutions, individuals, interests, and circumstances all came together under this operational model, and of particular note was the tandem of commerce and navigation. Both had decisive roles in the Indies trade, interacting in different ways, sometime in conflict and sometime in collaboration, depending on the circumstances, interests, and individuals. The visibility of these dynamics was channelled through two professional groups: merchants and seamen, both of which fought for economic advantage and social promotion through royal privileges, or any other

[2] The classic works on the *Carrera de Indias* are, in chronological order of the periods they cover, the magnum opus of Huguette and Pierre of Chaunu, *Seville et l'Atlantique (1504–1650)* (Paris 1955–1960), 12 vols; L. García Fuentes, *El comercio español con América (1650–1700)* (Seville 1980); and A. García Baquero, *Cádiz y el Atlántico: 1717–1778: el comercio colonial español bajo el monopolio gaditano* (Cadiz 1988). On the extension of commercial routes from Mexico to the Philippines see S. Bernabéu Albert and C. Martínez Shaw eds., *Un océano de seda y plata. El universo económico del Galeón de Manila* (Seville 2016).

[3] S. Gruzinsky, *Les Quatre Parties Du Monde. Histoire d'une mondialisation*. 2006. There is an ongoing debate concerning the concepts of globalization and *mundialización* which is particularly active in French and Spanish scholarship. The author develops his argument around *mundialización*, Westernization, and the mixing of peoples and remote territories during Iberian domination in the sixteenth and seventeenth centuries.

sort of advantage which provided them with opportunities for upward social mobility.

The third protagonist of maritime commerce in the West Indies was the Crown, which played a critically important role in terms of establishing the rules of play and in mediating conflicts between merchants and seamen.[4] Its participation took shape, on one hand through the royal officers that handled the fleet management and regulatory and tax-related aspects of commerce, and, on the other, through judges, in the positions of *presidentes* and *oidores*[5]—a different type of judicial figure—of the *Real Audiencia de la Contratación* of Seville who were in charge of the operational application of the commercial maritime system's regulatory laws for the Indies.

This essay analyzes certain aspects of relations between these two groups. The relationship between merchants and seamen included collaboration, but also conflicts. Regarding collaboration, both parties contributed to the reduction of maritime risk through their own specific expertises. Merchants organized the Indies commerce and seamen provided the technical expertise related to navigation. Conflicts between ship masters and merchants, often reflected opposing interests as each side deployed different strategies to achieve their goals. Analyzing General Average within the *Carrera de Indias* brings these issues in sharp relief.

One might think that merchants were interested in trade and seamen were interested in ships, devoting themselves to the "art of navigation".

[4] The Crown's involvement in the *Carrera de Indias* can be seen in many aspects over three centuries. From a legal perspective, legislation and judicial rulings related to the Indies trade are directly linked to royal intervention or to the actions of royally-appointed judges; see A. B. Fernández Castro, 'A Transnational Empire Built on Law: The Case of the Commercial Jurisprudence of the House of Trade of Seville (1583–1598)', in T. Duve ed., *Entanglements in Legal History: Conceptual Approaches* (Frankfurt 2014), 187–212. To mark the 500th anniversary of the *Casa de la Contratación*, two important volumes were published: *España América: Un océano de negocios. Quinto Centenario de la Casa de la Contratación 1503–2003* (Seville 2003); and A. Acosta Rodríguez, A. González Rodríguez and E. Vila Vilar eds., *La Casa de la Contratación y la navegación entre España y las Indias* (Seville 2003).

[5] *Oidores* were ministers of the court who heard and sentenced cases and lawsuits in the kingdom's audiences; see: *Diccionario de la Lengua Española. Edición del Tricentenario. Actualización 2020*, avalaible at: https://dle.rae.es/oidor?m=form. A list of the *presidentes* and *oidores* of the various *Audiencias* in the Americas and the Philippines in E. Schafer, *El Consejo Real y supremo de las Indias. Su historia, organización y labor administrativa hasta la terminación de la Casa de Austria*, 2 vols (Madrid 2003), II: *La labor del Consejo de Indias en la administración colonial*, 385–455.

Nevertheless, the lines dividing these two professional groups were not always clear. Ship-owners (*dueños de naos*), *maestres*,[6] sailors, and gunners all often conducted business aboard, generally on a small scale, though not in a professional or specialized manner. Indeed, it was a custom to reserve a small part of the hold for merchandise assigned to sailors and officers. Sailors were allowed to take on board, free of freight charge, merchandise for a value up to the men's wage. This was called the *quintalada* or *pacotilla*, for the sailors, while for officers it was called *generala*.[7] At the same time, there were merchants who entered the realm of the seamen, becoming ship-owners, such as Francisco de Vivero, who was very active in the Indies trade during the sixteenth century.[8] But aside from this, throughout the century these two worlds each had their own specific identity. Ship-owners and *maestres* made their living through freight charges, merchants made theirs by buying and selling merchandise. The latter pressured the former for the greatest amount of freight at the lowest possible cost, while the former wished to impose as many charges as possible on cargo ships.[9]

[6] The *maestre* was economic administrator and in charge of loading Indies-bound ships. He ensured that the ship had all the material and human resources necessary and that passengers and cargo arrived safe and sound. He reported to ship-owners, cargo owners, and Crown officials, assuring them that everything had been done according to the contract and the law, see: P. E. Pérez-Mallaína Bueno, *Los hombres del Océano: Vida cotidiana de los tripulantes de las flotas de Indias, siglo XVI* (Seville 1992), 93.

[7] The term *quintalada* (hundredweight) was related to the *quintales* of goods that a sailor was allowed to bring on board. He could return home with the value of the goods sold in cash or with products to sell at a high price in Europe. He could also simply rent space in the hold to a merchant and receive the equivalent freight charge, on this see Pérez-Mallaína Bueno, *Los hombres del Océano*, 103. According to him, the *quintaladas* were a very old system of payment and were regulated in medieval maritime codes and in the *Rôles d'Oléron*. He also says that most *quintaladas* paid to crew members in the sixteenth century were converted into a simple cash bonus.

[8] Pérez-Mallaína Bueno, *Los hombres del Océano*, 99. For example, Francisco de Vivero, a merchant, was a party in a suit before the royal tribunal of the *Casa de la Contratación* in 1592 between him, as the ship-owner, and the merchants who owned the cargo: AGI, Contratación, leg. 734, no. 3, "Autos de Pedro de Fontidueñas y Francisco de Vivero, dueño de nao, contra los interesados en la carga de dicha nao sobre avería gruesa".

[9] F. Arteaga, D. Desierto and M. Koyama, 'Shipwrecked by Rents', SSRN Working Paper 2020, avalaible at: https://ssrn.com/abstract=3693463 or http://dx.doi.org/10.2139/ssrn.3693463 (last accessed 21 January 2022).

Both worlds, commerce and navigation, were represented in the uses and customs of the *Carrera de Indias*, which grew out of medieval practices and Castilian law and were inspired by the concepts of collaboration and mutual aid.[10] Since ancient times, men had figured out ways to benefit from acting in concert, given the tremendous dangers of going to sea.[11] Alliances allowed them to increase their chances of successfully avoiding disaster for human lives and their economy. One such example was the medieval *compaña marítima*, an alliance between freight companies (*fletadores*) and ship-owners to undertake sea journeys. Members of this community were called *compañeros* and they followed norms that had been applied since the middle ages.[12]

This essay will show how the concept and usage of *avería gruesa* in the Indies trade was linked to the idea of mutual aid, and to mutual assistance on journeys by fleets of ships. Within the *Carrera*, three main concepts contribute to the costs resulting from a General Average procedure: the value of the cargo, the value of the ship and freight.[13] Maritime customs such as considering the ship, the freight, and the cargo as a unit, or redistributing risk among all interested parties in the case of damages caused by imminent danger remained in use under the *avería gruesa* as it applied to sixteenth-century trade to America.[14]

In what follows I examine conflicts between merchants and seamen by studying those cases of General Average which generated conflicts and thus came in front of the court of the *Casa de la Contratación* in Seville.

[10] For its medieval precedents see the contribution of Ana María Rivera Medina in this volume.

[11] See the contributions of Daphne Penna and Hassan Khalilieh in this volume.

[12] Escalante de Mendoza argued how some maritime practices in the Indies trade reproduced those of medieval *compañas*; one good example was paying merchant seamen according to the *monto de fletes*; see J. Escalante de Mendoza, *Libro nombrado regimiento de la navegación de las Indias Occidentales* [Manuscript], Biblioteca Nacional, mss. 3104 (circa 1575–1578).

[13] *Recopilación de Leyes de los Reynos de las Indias*, law 10, book 9, tit. 39: "*Ley X. Que el riesgo de lo alijado o descargado en beneficio de todos, se reparta por avería gruesa, como se declare*".

[14] On the *Siete Partidas* see the contribution of Ana María Rivera Medina in this volume.

The *Casa* managed both the world of Atlantic commerce (merchants' customs, and the exchange of goods), and issues related to navigation (monitoring of the route, technical condition of the ship, stowage of the cargo, pilot's steering of the ship, navigation under unfavourable weather and those circumstances under which shipwrecking happened). Litigation related to General Average brings the dichotomy between commerce and navigation to the fore.[15]

The merchant-seamen duality developed in the context of an Atlantic system in which the Crown settled conflicts between parties. These solutions show us how actions by royal administrators or delegates were decisive for trade and navigation to the Indies. This is a crucial issue in our research in that the *Casa de la Contratación* was active throughout the early modern era in the Indies trade, though it also had specific peculiarities that deserve highlighting in comparison with other European maritime jurisdictions. Analysis of this type of litigation can therefore also contribute to the current debates conflict management and the handling of such strategies by individuals, institutions, organizations, and state powers.[16]

Documentary sources for this analysis come from the *Archivo General de Indias* (AGI). A section of the archive called *Autos entre partes* (lawsuits between parties) contains litigation with judgments handed

[15] On these issues in the Netherlands and France see the contributions in this volume of Sabine Go and Lewis Wade.

[16] A. Cordes and P. Höhn, 'Extra-Legal and Legal Conflict Management among Long-Distance Traders (1250–1650)', in H. Pihlajamäki, M. D. Dubber and M. Godfrey eds., *The Oxford Handbook of European Legal History* (Oxford 2018), 2–19; J. Wubs-Mrozevicz, "Mercantile Conflict Resolution and the Role of the Language of Trust: a Danzig Case in the Middle of the Sixteenth Century', *Historical Research*, 88/241 (2015): 417–440; Eadem, 'The Late Medieval and Early Modern Hanse as an Institution of Conflict Management', *Continuity and Change*, 32/1 (2017): 59–84; Eadem, 'Conflict Management and Interdisciplinary History', *Tijdgschrift voor Sociale en Economische Geschiedenis*, 15/1 (2018): 89–107. L. Sicking, 'Introduction: Maritime Conflict Management, Diplomacy and International Law, 1100–1800', *Comparative Legal History*, 5 (2017): 1–14; Idem, 'The Pirate and the Admiral: Europeanisation and Globalisation of Maritime Conflict Management', *Journal of the History of International Law*, 20 (2018): 429–470; T. K. Heebøll-Holm, 'Law, Order and Plunder at Sea: A Comparison of England and France in the Fourteenth Century', *Continuity and Change* 32/1 (2017): 37–58; A. Wijffels, 'Introduction: Commercial Quarrels—And How (Not) to Handle Them', *Continuity and Change*, 32/1 (2017): 1–9; F. Miranda, 'Conflict Management in Western Europe: The Case of the Portuguese Merchants in England, Flanders and Normandy, 1250–1500', *Continuity and Change*, 32/1 (2017): 11–36.

down by the royal court of the *Casa de la Contratación*. The *Casa de la Contratación* had very broad judicial competence over individuals travelling to the Indies either with fleets or alone.[17] I have selected those lawsuits brought by the *maestres* requesting a declaration of General Average and the obligation to contribute proportionately by all parties involved in the maritime operation. In addition, other lawsuits filed by the *maestres* in request of a double petition are included in this research: the declaration of the existence of *casus fortuitus* -particular damages in cargo- and, in addition, the declaration of a General Average, which implies the consequent obligation of the interested parties to contribute to the damages, according to their respective responsibilities and in a proportional manner. Both types of lawsuits amount to more than 100 cases from 1574 to 1669. There were thirty suits from 1574 to 1600, one-quarter of the total. What follows is based on this first group, though the remaining suits are being closely studied and will be incorporated into my larger research project.

In addition to the archival documents, I also have used early modern treatises. Writers such as the jurists José de Veitia y Linaje,[18] Juan de Solórzano Pereira,[19] and Rafael Antúnez y Acevedo[20] all shed light on the

[17] *Recopilación de Leyes de los Reynos de las Indias*, vol. 3, book 9, tit. 1, law 14: "The President and Judges of the Casa shall have jurisdiction over navigation, contracts, and trade with the Indies;" and law 22, "Cases brought by ship-owners, *maestres* and seamen in these kingdoms shall be under the jurisdiction of only the Casa of Seville, with all other courts excluded".

[18] José de Veitia y Linaje [Linage] (Burgos, 1623—Madrid, 1688), was well acquainted with Indies administration, held important posts in the *Casa de la Contratación*; he was treasurer and judge of that institution, and later was secretary of the Council of Indies. He had one of the most important private libraries in the country and was the author of *Norte de la Contratación de las Indias Occidentales*, an essential work that compiled all extant knowledge about the workings of the *Carrera de Indias*. On him see M. C. Borrego Plá, 'Don José de Veitia y la Universidad de Mareantes', in F. Navarro Antolín ed., *Orbis incognitu: avisos y legajos del Nuevo Mundo: homenaje al profesor Luis Navarro García* (Huelva 2007) 2 vols, 1: 293–306.

[19] Juan de Solórzano Pereira (Madrid, 1575—Madrid, 1655) was a jurist and magistrate and served the Crown both in Spain and in the Indies. His work on the laws of the Indies is a fundamental resource; for his biography see: http://dbe.rah.es/biografias/14530/juan-de-solorzano-y-pereira (last accessed 20 February 2020).

[20] Rafael Antúnez y Acevedo (c. 1736—Cádiz, 1800) was a jurist, historian of mercantile law, a prominent figure at the *Casa de la Contratación* in Cadiz, a judge of that

thicket of norms extending throughout the *Carrera de Indias*. Commercial treatises are also helpful in interpreting rules and regulations. Finally, sixteenth- and seventeenth-century treatises by experts on overseas routes including Pedro de Medina,[21] Alonso de Chaves,[22] Juan Escalante de Mendoza,[23] and Diego García de Palacio[24] offer valuable additional information, which has been incorporated into this essay.

court, and a member of the Council of Indies. In 1797 he published *Memorias históricas sobre la legislación y gobierno del comercio de los españoles con sus colonias en las Indias Occidentales*; for his biography see: http://dbe.rah.es/biografias/56299/rafael-antunez-y-acevedo (last accessed 20 December 2021).

[21] Pedro de Medina (Medina Sidonia, Cádiz, c. 1493—Seville, 1567) was a cosmographer, historian, and a cleric. He was a member of the scientific committee of the *Casa de la Contratación* and wrote several nautical treatises; for his biography see: http://dbe.rah.es/biografias/12454/pedro-de-medina (last accessed 20 December 2021).

[22] Alonso de Chaves (Seville, c. 1495–1587) was a cosmographer and pilot for the *Casa de la Contratación*. He was the author of a widely recognized nautical treatise: *Quatri partitu en cosmographia pratica i por otro no[m]bre llamado Espeio de Navegantes: obra mui vtilissima i co[m]pendiosa en toda la arte de marear i mui neccesaria i de grand provecho en todo el curso de la navegacio[n] principalmente de españa [Manuscrito] / agora nueuamente ordenada y compuesta por Alonso de Chaues cosmographo … del emperador y Rei de las españas Carlo [sic] quinto … Copy of the Real Academia de la Historia*. The treatise, today held by the Royal Academy of History, was written in 1536–40; for his biography see: http://dbe.rah.es/biografias/19188/alonso-de-chaves (last accessed 20 December 2021).

[23] Juan Escalante de Mendoza (Ribadesella, Asturias, c. 1545–96) was an experienced man of the sea, governor of Honduras, and general of the Spanish Armada, and was well known for his work, *Itinerario de navegación…* (c. 1575–78); for his biography see: http://dbe.rah.es/biografias/16035/juan-de-escalante-de-mendoza (last accessed 20 December 2021). The manuscript version of Escalante's work at the Spanish National Library [BNE], is catalogued as follows: *Libro nombrado regimiento de la navegación de las Indias Occidentales / compuesto por el capitán Juan Escalante de Mendoza* [BNE mss 3104].

[24] Diego García de Palacio (Ambrucero, Cantabria, 1542—Mexico City, 1595) was a judge on the Audiencia court, a criminal prosecutor, university president (*rector*), and inspector (*visitador*). In 1587 he published *Instrvccion Navthica para el bven vso y regimiento de las Naos, su traça y gouierno conforme a la altura de Mexico* (Mexico City: Casa de Pedro Ocharte); for his biography see: http://dbe.rah.es/biografias/16273/diego-garcia-de-palacio (last accessed 20 December 2021).

The *Carrera De Indias* as a Space of Interaction for Navigation and Commerce

The *Carrera* was the main link between Spain and America during the early modern era, the main link supporting exchanges between the metropolis and its American colonies. Throughout the sixteenth century its component institutions were established and articulated: the *Casa de la Contratación*, founded in 1503, was the technical and administrative centre of trade[25]; the *Consulado de Comercio* (also known as the *Universidad de Cargadores*) established in 1543, was both a representative assembly of merchants and an exclusive tribunal for commercial litigation[26]; and, last, the *Universidad de Mareantes*, established in 1569, represented the interests of seamen.[27] The Council of the Indies (founded in 1524) was the most important administrative institution and sat just above the *Casa de la Contratación* in the hierarchy. The council advised the king and exercised executive, legislative, and judicial powers.[28]

Seville and its port were the point of entry and departure for the fleets to the Indies.[29] Until the 1520s, the *Carrera de Indias* used individual vessels with no military protection. But the trans-Atlantic route was tempting for the empire's enemies, and a growing number of attacks by French corsairs on Spanish ships were making the trip more dangerous. Authorities began taking measures to prevent ships from travelling alone with no defence, and between 1520 and 1564 a system was devised in

[25] There is an enormous bibliography concerning the *Casa de la Contratación*. An excellent starting point are the essays in G. de Carlos Boutet ed., *España y América: Un océano de negocios. Quinto centenario de la Casa de la Contratación 1503–2003* (Seville, 2003).

[26] Enriqueta Vila Vilar has devoted much of her work to studying the *Consulado* of Seville and its merchants; among her publications are: 'El poder del dinero: la Casa y los Consulados de Sevilla y Cádiz', in Carlos Boutet ed., *España y América*, 147–160; 'Los Corzos: un "clan" en la colonización de América: apuntes para su historia', *Anuario de Estudios Americanos*, 42 (1985): 1–42; *Los Corzo y los Mañara: tipos y arquetipos del mercader con Indias* (Seville 2011); and *El Consulado de Sevilla de mercaderes a Indias. Un órgano de poder* (Seville 2016).

[27] M. García Garralón, *La Universidad de Mareantes de Sevilla (1569–1793)* (Seville 2005).

[28] E. Schäfer, *El Consejo Real y Supremo de las Indias. La labor del Consejo de Indias en la administración colonial*, 2 vols (Madrid 2003).

[29] E. Mira Caballos, *Las armadas imperiales. La guerra en el mar en tiempos de Carlos V y Felipe II* (Madrid 2005), 189.

which navigation would be organized by convoys, with specially equipped armoured ships as escorts.

After four decades of experiments and plans, the definitive model for fleet navigation was finalized by 1564.[30] It had the advantage of regular departures, in theory once a year, from Seville. The New Spain fleet sailed to the Mexican port of Veracruz, and the other, the galleon ships, sailed to the South American mainland.

The New Spain fleet went from Dominica, in the Lesser Antilles, to Puerto Rico, where ships bound for San Juan separated from the rest. The remaining convoy then sailed along the southern coast of Hispaniola, where ships bound for Santo Domingo then separated. Further ahead they took on drinking water at the town of Ocoa, and later several ships would turn towards Santiago de Cuba or, a bit further on, the coast of Honduras (Trullo and Puerto Caballos). The rest of the convoy continued on towards the Gulf of Mexico, along the Yucatan coast, until reaching Veracruz and San Juan de Ulúa.

The second route, to *Tierra Firme*, sailed towards South America. Ships bound for the Venezuelan coast (Trinidad, Cumaná, Margarita Island, Cubagua, Caracas, Coro, and Maracaibo) sailed towards the south. Ships going to the Colombian coast and the Isthmus of Panama turned towards the ports of Santa Marta, Cartagena, and Nombre de Dios or Portobelo. Starting in 1564 Cartagena de Indias became an obligatory stopping-off point before reaching the isthmus. The Spaniards ceased using Nombre de Dios as a port in 1598, after which time they used Portobelo.

For the trip home, most of the ships gathered in Havana and travelled together through the dangerous Old Bahama Channel and then sailed to the Azores, where they rested for several days. From there they headed for Andalusia, turning west at Cape St. Vincent and arriving, finally, in Seville.

Journeys on the high seas across the Atlantic brought about important advances in cartography, astronomy, and the construction of nautical

[30] The legislation is in the *Recopilación de Leyes de los Reynos de las Indias*, vol. 4, book 9, tit. 30: "De las Armadas y Flotas". There is a large bibliography on this subject, including M. Lucena Salmoral, 'Organización y defensa de la Carrera de Indias de Indias', in Carlos Boutet ed., *España y América*, 131–146; A. Mola, M. and C. Martínez Shaw, 'Defensa naval de los reinos de Indias', in H. O'Donnell et al. eds., *Historia Militar de España*, 9 vols (Madrid 2012), I: 121–142; and H. O'Donnell, 'Función militar en las flotas de Indias' I: 81–119.

instruments.[31] The *Casa de la Contratación* played a crucial role in the advance of navigational arts during the Renaissance.[32] Even so, these new routes were clearly more dangerous and risky. Their long duration, the long distances during which navigators had no visual reference points, and the obligatory wintering in America forced merchants and seamen to address a greater number of unexpected situations.

Some of the *maestres* returning from their ocean voyages to Seville had suffered accidents at sea, either because they had had to throw cargo into the sea or because the cargo in the hold had been damaged by the storms of the voyage. On their arrival in port, they filed a claim in the Seville court for *avería gruesa* or, on some occasions, for a joint claim of *caso fortuito y avería gruesa*. In the lawsuits of the *Carrera de Indias* claims under the expression *casus fortuitus—caso fortuito*—mean lawsuits brought by *maestres* claiming payment for damages caused by storms to cargo or to the ship.

The etymological meaning of *fortuito* comes from the Latin word *fortuitus*, derived in turn from *fors*. According to Joan Corominas, very frequently throughout the Middle Ages and especially from the thirteenth century onwards, this word is found in the *Consulat de Mar* although the oldest documentation that records this term dates back to 1200.[33]

The seafarer and *maestre* Escalante de Mendoza declared in the second half of the sixteenth century that *caso fortuito* related to damage to the ship or goods caused accidentally by wind or sea or some other event outside of human intervention. As the damage was accidental, not due to anyone's fault, it could not have been "taken care of or prevented by

[31] J. Pulido Rubio, *El Piloto Mayor de la Casa de la Contratación de Sevilla: pilotos mayores, catedráticos de cosmografía y cosmógrafos de la Casa de la Contratación de Sevilla* (Seville 1950); L. Martín-Merás, 'Las enseñanzas en la Casa de la Contratación de Sevilla', in Acosta Rodríguez et al. eds., *La Casa de la Contratación y la navegación entre España y las* Indias, 667–693; A. Sánchez Martínez, 'Los artífices del Plus Ultra: pilotos, cartógrafos y cosmógrafos en la Casa de la Contratación de Sevilla durante el siglo XVI', *Hispania. Revista Española de Historia*, LXX/236 (2010): 607–632; Idem, 'La institucionalización de la cosmografía americana: la Casa de la Contratación de Sevilla, el Real Supremo Consejo de Indias y la Academia de Matemáticas de Felipe II', *Revista de Indias*, LXX/250 (2010): 715–748; J. M. García Redondo, *Cartografía e Imperio. El Padrón Real y la representación del Nuevo Mundo* (Madrid 2018).

[32] J. M. López Piñero, *El arte de navegar en la España del Renacimiento* (Barcelona 1979).

[33] J. Corominas and J. Pascual, *DIccionario Crítico Etimológico Castellano e Hispánico* (Madrid 1984), 935–936.

the hand of man". In these fortuitous cases, no fault can be imputed to the owners, managers, or seamen of the ships. Therefore these types of damages were covered by insurance.[34]

The *maestres* also used to go to the court of Seville to file claims for General Average. The term *avería* in the Spanish context has different accepted meanings, which can lead to confusion.[35] In the context of the *Carrera*, one must distinguish among its various meanings, especially between *avería gruesa*, the subject of this essay, and the figure generally referred to as *avería de armada* or *avería de Indias*. The latter was closely linked to overseas politics and the financing of the navies and fleets that travelled to America.[36]

In the intricate Spanish landscape, the polysemous nature of the term *avería* means that researchers must have detailed knowledge and exercise great care when interpreting which of them is being referred to in a given document. We must also alert readers to a second meaning for the term *avería gruesa*, which concerns the just mentioned *avería de armada*, which is unrelated to the *avería gruesa* we are addressing in this research project. Rather, that concerns the specific cases, beyond the scope of our work, of navies or fleets that unexpectedly were forced to spend

[34] I. Escalante de Mendoza, *Ytinerario de la Nauegacion de los mares y tierras Occidentales* (Circa 1575. Inédita), in AMN (Archivo del Museo Naval de Madrid), ms. 2519, fol. 275 v. y 276 r. For a study of risk and navigation, different types of risk, and their relationship to maritime insurance, freight contracts, and the *avería de Indias*, see M. Vas Mingo and C. Navarro Azcue, 'El riesgo en el transporte marítimo del siglo XVI', in *Congreso de Historia del Descubrimiento* (Madrid 1992) Tomo III: 579–612.

[35] About the contested etymologies of 'average', see in this volume the essays of Andrea Addobbati and Hassan Khalilieh.

[36] An excellent and classic study on the various types of *avería* is G. Céspedes del Castillo, 'La avería en el comercio de Indias', *Anuario de Estudios Americanos*, 2 (1946): 515–698. Other studies include L. Zumalacárregui, 'Contribución al estudio de la avería en el siglo XVI y principios del XVII', *Anales de Economía*, 4/16 (1944): 385–424; J. M. Oliva Melgar, 'Realidad y ficción en el monopolio de Indias: una reflexión sobre el sistema imperial español en el siglo XVII', *Manuscrits: Revista d'història moderna*, 14 (1996): 321–355; and Idem, *El monopolio de Indias en el siglo XVII y la economía andaluza: la oportunidad que nunca existió: lección inaugural curso académico 2004–2005* (Huelva 2004); M. Vas Mingo and M. Luque Talaván, *El laberinto del comercio naval. La avería en el tráfico marítimo-mercantil indiano* (Valladolid 2004); J. M. Díaz Blanco, *Así trocaste tu gloria. Guerra y comercio colonial en la España del siglo XVII* (Madrid 2012); Idem, J. M. Díaz Blanco, 'La Carrera de Indias (1650–1700): Continuidades, rupturas, replanteamientos', in *E-Spania*, 29 (2018), available at: https://journals.openedition.org/e-spania/27539 (last accessed 20 December 2021).

the winter in the Indies, triggering supplemental costs. These expenses were collected on the return voyage to the Iberian Peninsula, and this supplement was referred to as the *avería gruesa* or the *avería de exceso*, or even, in the seventeenth century, the *avería vieja*.[37] But our *avería gruesa*, unlike that one, is linked to the notion of degradation, damage, or loss, and it appears in the documents as *avería gruesa*, *avería de echazón* (i.e. jettison) or simply as *avería*.[38]

Lawsuits before the royal court of the *Casa de la Contratación* in Seville were filed by seamen, generally by the *maestre* or, more rarely, by the ship-owner, against all the interested parties in the cargo of the ship. They petitioned the court to declare that during the voyage there had been an event leading to an *avería gruesa*. Once this declaration was confirmed, all parties involved with the merchandise as well as the ship-owner were responsible for the damages and must contribute proportionately according to their ownership of the cargo.

According to Juan Escalante de Mendoza, an experienced sailor and General of the *Tierra Firme* fleet in 1596, *casus fortuitus* might have several causes: wind, the sea, and other causes beyond men's powers. All these could damage the cargo and could even lead to the ship's loss altogether. The origin of such an event was, therefore, an accident, something fortuitous, with no human fault attached to it, something which was unavoidable and unpredictable.[39] In this regard the cosmographer and pilot Alonso de Chaves in his treatise *Quatri partitu en cosmographia*

[37] Céspedes del Castillo, 'La avería en el comercio de Indias', 8; see also: M. E. Martín Acosta, 'Estado de la cuestión sobre la Avería en la historiografía española y americanista: la avería de 1602', *Revista de Indias*, 50/188 (1990): 151–160; J. A. Caballero Juárez, 'Los asientos de la avería de la Armada de la Carrera de Indias', in *Ius fugit. Revista interdisciplinar de estudios histórico-jurídicos*, 5–6 (1996–1997): 431–446; Milagros Vas Mingo and Miguel Luque Talaván have published several relevant studies: 'La avería de disminución de riesgos en el reinado de Carlos V', in *El emperador Carlos V y su tiempo: actas IX Jornadas Nacionales de Historia Militar* (Seville 2000): 575–604; 'La avería de disminución de riesgos marítimos y terrestres. La avería del camino', *Estudios de historia novohispana*, 26 (2002): 125–163; and *El laberinto del comercio naval. La avería en el tráfico marítimo-mercantil indiano* (Valladolid: 2004) See also Miguel Luque Talaván, 'La avería en el tráfico marítimo-mercantil indiano: notas para su estudio (siglos XVI–XVIII)', *Revista Complutense de Historia de América*, 24 (1998): 113–145.

[38] Both types of Averages are differentiated in José de Veitia y Linaje, *Norte de la Contratación de las Indias Occidentales* (Seville: Iuan Francisco de Blas 1672) book 1, ch. 20, section 5.

[39] Escalante de Mendoza, *Libro nombrado regimiento*, part 3, fols. 335v and ff.

pratica also called as *Espejo de Navegantes* (c. 1537) referred to "unfortunate events and dangers that take place at sea" (*infortunios y peligros que acontecen en la mar*). This author offered valuable advice to the men preparing the ship, the cargo, and the crew before and during a storm, saying which were the criteria for jettison and what was the least dangerous way of cutting a mast.[40]

The concepts of *casus fortuitus* and *avería gruesa* are closely connected with maritime risk management. In the case of the *Carrera de Indias*, the former had to do with damages to cargo during the voyage, damages to the ship, or extraordinary expenses by the maestre as a result of an unexpected event. In such a case, in order for an *avería gruesa* to be declared there must have been a deliberate attempt to save the ship and the cargo in the face of a known and effective danger. Furthermore, the result of such an attempt must be successful, meaning that at least a part of the ship and cargo were saved. The whole concept of *avería gruesa* was therefore connected on the one hand to the voluntariness of the act itself, and on the other to the common benefit of the maritime enterprise. However, if the *caso fortuito* had simply caused damages to the cargo or the ship, these damages were not listed as an *avería gruesa*, but as a "simple" or "particular" Average. Once the Tribunal had accepted the *maestre*'s declaration about the event, and thus freed him from any responsibility, these types of damages (and related expenses/losses) fell under the responsibility of their owner.

A typical example of *avería gruesa* would consist in jettisoning cargo because of a storm as the ship was in imminent danger of being wrecked. As a result of the lost merchandise, or of the *maestre*'s decision to save cargo and human lives or even the ship, the costs must be divided up among all participants of the voyage in proportion to their interests. Other examples of *avería gruesa* were when the ship, cargo, or crew suffered damages because of a corsairs' attack.[41] Fires onboard ships in

[40] Alonso de Chaves (circa 1537), *Quatri partitu en cosmographia pratica i por otro no[m]bre llamado Espeio de Navegantes: obra mui vtilissima i co[m]pendiosa en toda la arte de marear i mui neccesaria i de grand provecho en todo el curso de la navegacio[n] principalmente de españa [Manuscrito] / agora nueuamente ordenada y compuesta por Alonso de Chaues cosmographo … del emperador y Rei de las* españas *Carlo [sic] quinto …* Real Academia de la Historia, 9/2791, 67–68, available at: https://bibliotecadigital.rah.es/es/consulta/registro.do?control=RAH20120001336 (last accessed 20 December 2021).

[41] Hevia Bolaño states that, according to Civil and Property Law, if stealing corsaires "that walk the sea" capture a ship with its crew and cargo, and obtain a ransom in

the harbour could also lead to all parties to contribute when there was a decision to destroy one ship as a way of preventing flames from jumping to the rest. In that case, damage was caused in order to avoid greater damage, and therefore the other ships must help cover costs to pay for the destroyed ship, compensating in proportion to what was saved.[42]

The regulation of General Average within the *Carrera de Indias* was rather succinct and focussed on three specific points. The article that covers in greatest depth and extension the institution of General Average can be found in the *Recopilación de Leyes de los Reynos de las Indias*, which in turn reproduces a 1556 disposition from the *Ordenanzas de la Casa de la Contratación de Sevilla*. This declares that the burden of the jettisoned cargo or the goods unloaded in the interest of all must be distributed through General Average. Moreover, any cargo jettisoned in the interest of all, any unloadings and lightenings of the ship in order to traverse the river up to Seville or other rivers, and/or any other common risks that may be incurred in, are to be considered under General Average. The ship, freights, and goods transported by the ship will contribute to cover

exchage, the bailout amount must be shared as a pro rata payment, not only regarding the ship, but also its cargo; see Hevia Bolaño, *Curia Philipica, Primero y Segundo Tomo. El Primero, dividido en cinco partes, donde se trata breve y compendiosamente de los Juicios Civiles y Criminales, Eclesiásticos y Seculares, con lo que sobre ello está dispuesto por Derecho, y resoluciones de Doctores; útil para los Profesores de ambos Derechos y Fueros, Jueces, Abogados, Escribanos, Procuradores y otras personas. El segundo Tomo, distribuido en tres libros, donde se trata de la Mercancía y Contratación de Tierra y Mar; útil y provechoso para Mercaderes, Negociadores, Navegantes, y sus Consulados, Ministros de los Juicios y Profesores de Jurisprudencia* (Madrid: Imprenta de Ulloa, 1790 [1603]), ch. 3, section 18.

42 Such an instance appears in the *Siete Partidas*; see Hevia Bolaño, *Curia Philipica*, book 3, ch. 13, section 2ff. According to José de Veitia y Linaje, General Average comes into effect "when forced to jettison part of the cargo as a result of inclement weather or when goods are damaged under fortuitous mishaps, through no fault of the *maestre*. Once determined, the value of the damages or what was jettisoned overboard is shared between what was salvaged": Veitia y Linaje, *Norte de la Contratación*, book 1, ch. 20, section 5.

the burden of General Average in *ocasión forzosa*—"forced event"—and at no fault of the *maestre*.[43]

The second article, also found in the *Ordenanzas de la Casa de la Contratación de Sevilla* regulates the relationship between General Average and insurance, and states that under the insurance policy "the Average of damage or absence are to be charged to the owner, and General Average to the insurer". The disposition continues declaring that any insured cargo arriving from the Indies must not be delivered with any damage, but, if that were the case, the cost of the Average must not be charged to the insurer, but to the shipper. However, under the circumstance of having a jettisoned cargo, the burden must fall on the insurers, as defined by the aforementioned article.[44] The third article excludes slaves and animals from General Average, although these can be specifically insured.[45]

Merchants v Seamen: Two Professional Groups and One Enterprise

The powerful merchants trading across the Atlantic and all their less powerful brethren along the *Carrera de Indias* were always in close

[43] *Recopilación de Leyes de los Reynos de las Indias*, law 10, book 9, tit. 39: "*Ley X. Que el riesgo de lo alijado o descargado en beneficio de todos, se reparta por avería gruesa, como se declare*": "Las echazones al mar, hechas en beneficio de todos y descargas y alijos de la nao, para montar los bajos en el río de Sevilla y otras partes, y los demás riesgos comunes que hubiere, sean y se entiendan avería gruesa, y que lo han de pagar la nao, fletes y mercaderías que en ellas fueren, con que haya sido la ocasión forzosa y sin culpa del maestre" (on the right-hand margin of the *Ordenanza* 36).

[44] *Recopilación de Leyes de los Reynos de las Indias*, law 20, book 9, tit. 39: "*Ley XX. Que en lo asegurado, la avería del daño o falta, sea a cargo del dueño, y la gruesa a cargo del asegurador*. En ninguna mercadería que se asegure de venida de Indias pueda haber avería de daño, ni falta que traiga, y si algún daño o falta hubiere, ha de ser a cargo del cargador, y no del asegurador, si no fuere solamente avería gruesa de echazón, que ésta ha de ser a cargo de los aseguradores, por su parte, conforme a la ordenanza 36. I.10. de este título" (on the right-hand margin of the *Ordenanza* 46).

[45] *Recopilación de Leyes de los Reynos de las Indias*, law 33, book 9, tit. 39: "*Ley XXXIII. Que en los seguros de esclavos o bestias se declare así y se paguen de las que se echaren al mar, sin ser por avería gruesa*. En los seguros que se hicieren sobre esclavos, o sobre bestias, se declare en la póliza que son sobre ellos, y en otra forma no corra riesgo los aseguradores; y si alguna bestia se echare a la mar, no se puede repartir por avería gruesa, y sea a cuenta de los aseguradores" (on the right-hand margin of the *Ordenanza* 59).

contact with seamen. They needed ships to transport their goods from one side of the ocean to the other. What was the nature of their symbiotic relationship? Some answers to this question can be found in the study of General Average within the context of the *Carrera de Indias*. Precisely in this *océano de negocios*[46] we discover the embeddedness of the commercial practices and customs of merchants with the *arte de navegar*, that is to say, with the navigational knowledge and experience of the Indies Trade seamen.

Commerce has always been one of the principal engines of human mobility, and from the start of the *Carrera* it was clear that the Atlantic might be a very lucrative sea indeed. The Crown made it possible for Castilian subjects to enjoy substantial benefits derived from trade and navigation to the Indies. That was made clear by Juan de Solórzano Pereira in his treatise *Política Indiana* (1648), where he wonders about the utility and wealth that commerce brought to the Catholic King's maritime cities. The risks faced by merchants in the Indies trade were not negligible given "the efforts they must endure, with great losses they tend to have, where they hope for growing profits … and their wealth often disappears and is ruined with greater ease than a spider's web".[47] Clearly interested in incentivizing commerce, Spanish monarchs were keen to grant privileges and immunities to freighters: "… navigation and business have always been regarded as very useful to the Republic, and therefore it is ordered that in all well governed [Republics] they be helped and not hindered … those who squeeze merchants with rigorous charges [and] taxes are more cruel than shipwrecks and they make them more fearful

[46] The expression *ocean of business* belongs to the treatise writer and jurist José de Veitia y Linaje (1623–88), who held important posts at the *Casa de la Contratación* in Seville and was one of the leading experts on the *Carrera de Indias*. His work, *Norte de la Contratación* is the most complete and rigorous extant study of the legislation, organization, and jurisdiction of the royal court at *the Casa de la Contratación*. In his introduction to the work he uses the expression "*océano de negocios*" to refer to the great variety of cases before that court.

[47] Juan de Solórzano Pereira, *Política Indiana sacada en lengua castellana de los dos tomos del Derecho y gobierno municipal de las Indias Occidentales que más copiosamente escribió en la Latina el Dotor Don Ivan de Solorzano Pereira, caballero del Orden de Santiago, del Consejo del Rey Nuestro Señor en los Supremos de Castilla y de las Indias…* 2 Vols (Madrid: por Diego Diaz de la Carrera 1648), book 6, ch. 14.

of arriving in port than of sailing between Scylla and Charybdis".[48] Privileges to merchants led to laws granting them exclusive jurisdiction to hear litigation and the ability to defend their interests before the *Consulados de Cargadores*.[49]

The powerful freighters (*cargadores*) involved in the Indies trade from Seville established their *Consulado de cargadores a Yndias* in 1543, following the models of Burgos (1494) and Bilbao (1511). Seville was the site of a complex system of mercantile and financial networks extending to both sides of the Atlantic and part of the Pacific, in which Genovese, Portuguese, French, Florentine, Flemish, and Marseilles communities of merchants all played important roles.[50] Years later, *consulados* would also be established in Mexico City (1593) and in Lima (1613).

For the purposes of this essay, what stands out is the complex political and financial relationship between freighters and the monarchy owing to the Crown's acute financial needs. Merchants paid for defensive *armadas* against pirates and corsairs. And the Crown, when it found itself in economic difficulties, quickly adopted the custom of seizing most or all of the merchants' precious metals arriving from America. In exchange, it reimbursed merchants at the losing end of this practice by paying them interest on the seized capital. These forced loans remained common during the seventeenth century. And in addition to taking the precious metals, the Crown often demanded that Seville merchants make special payments to cover the Crown's excruciating obligations, either as what amounted to donations or in exchange for royal favours.[51]

In the Atlantic world, anyone who could trade did trade, from the king down to the lowliest page. But it was one thing to trade a few tanks of

[48] Ibid., book 6, ch. 9.

[49] R. S. Smith, 'Antecedentes del Consulado de México, 1590–1594', *Revista de Historia de América*, 15 (1942): 200–316; M. Basas Fernández, *El Consulado de Burgos en el siglo XVI* (Madrid 1963); *Historia de los Consulados de Mar (1250–1700)* (Barcelona 1978); M. Vas Mingo, *Los Consulados en el tráfico indiano* (2000) [online] http://www.larramendi.es/i18n/catalogo_imagenes/grupo.cmd?path=1000183 (last accessed 20 December 2021); R. Grafe and O. Gelderblom, 'The Rise and Fall of the Merchant Guilds: Re-thinking the Comparative Study of Commercial Institutions in Premodern Europe', *Journal of Interdisciplinary History*, XL/4 (2010): 477–511.

[50] E. Vila Vilar, *El Consulado de Sevilla de mercaderes a Indias. Un órgano de poder* (Seville 2016).

[51] C. H. Haring, *Comercio y navegación entre España y las Indias en la época de los Habsburgo* (México 1979 [1ª ed. 1939]), 213–215.

wine loaded onto a ship by a sailor, and quite another thing to become a professional merchant. *Cargadores* were those who registered goods loaded onto ships, regardless of the quantity and time frame. Merchants, or *mercaderes tratantes*, were true Indies specialists.[52] Most operated by obtaining loans, so that in the event of something unexpected such as jettison or an attack by corsairs, small and medium *cargadores* could easily be ruined.

Across from them when they litigated regarding *avería gruesa* stood the ship-owners and *maestres*. At least in the sixteenth century, ship-owners generally travelled on board their own ships, unlike the Portuguese, Dutch, or English ship-owners on their long routes.[53] The *señor de nao* was often also called *capitán*, and this role on board also used the title of captain. According to Pablo Emilio Pérez-Mallaína Bueno, ship-owners in the sixteenth century often were seamen themselves, and indeed influential and wealthy ship-owners in Seville such as Juan Rodríguez de Noriega, Cristóbal Monte Bernardoand Andrés de Paz travelled on board their ships. Aside from these wealthy ship-owners there were more modest ones who perhaps owned part of the ship or a smaller vessel, and they too travelled on board, where they could keep an eye on their interests. In the sixteenth century, the presence of these ship-owners was made possible by the relatively small average tonnage. During the first half of the century, the average tonnage was 100, which rose to 200 in the second half. There also were pilots who owned ships, either totally or partially. Pérez-Mallaína states that in the sixteenth century between 40 and 50% of ships had owners on board. When that was the case, the owner normally assumed one of the three leadership posts on board: some were pilots, but most were *maestres* or captains. In the latter case, owners had honorary command of the ship and were accompanied by a *maestre* who conducted administrative tasks under the owner's supervision. But owners on board also made important decisions. Their presence on ships bound for the Indies diminished gradually throughout the seventeenth century and ownership gradually shifted to commercial capital, which took control over the shipping business. The decline of Spanish maritime commerce led

[52] S. Rodríguez Lorenzo, *La Carrera de Indias: la ruta, los hombres, las mercancías* (Madrid 2015), 53.

[53] Until the sixteenth century it was frequent that the *maestre* was also the owner; he had to own at least one-eighth of the ship, though generally they owned it all; Vas Mingo and Navarro Azcue, 'El riesgo en el transporte marítimo del siglo XVI', 611.

to the concentration of wealth in the hands of the wealthiest, who tended to be the most privileged businessmen in the *Consulado de Comercio*, and they ended up taking over maritime commerce. Meanwhile, the less important ship-owners slowly disappeared as the size of ships grew and it was increasingly difficult for them to come up with enough money to become owners.[54]

According to Diego García de Palacio's *Instrvción Navthica* (1587), owners must be good, God-fearing Christians. Given the great diversity of men on board a ship, it was necessary that the ship-owner be wise and discreet, and if a crime were committed on board he must hear the case using reason and wisdom. In order for "things to be harmonious and God not offended", he must always be on the alert and watching out for everyone. To round off this list of virtues, García de Palacio did not fail to mention that a ship-owner must be careful with the cargo on board the ship so as to avoid the feared *averías*.[55] But the most important person on the voyage from an organizational perspective was the *maestre*. He was the plaintiff in suits over *avería gruesa*, which meant he bore the weight of the proceedings. He was the first officer on a merchant ship, arranged loading, hired the crew, obtained supplies and food, and was in charge of administrative paperwork and accounts.[56] *Maestres* were the keystone of the entire *Carrera de Indias* system, and their multiple tasks were centred in three principal areas: technical knowledge regarding navigation and crew management, business knowledge, and legal knowledge. The lives of everyone on board and the survival of the cargo depended on their abilities and experience.[57]

The agreement between merchant and *maestre* to transport merchandise was materialized with the signing of a freight contract. According to this contract, the owner or *maestre* of a ship committed to taking the

[54] Pérez-Mallaína Bueno, *Los hombres del Océano*, 97–99.

[55] In this case, *avería* refers to possible harm to the cargo; see García de Palacio, *Instrvcion Navthica*, book 4, ch. 20, pp. 111–112. García de Palacio was a judge in the *Audiencia* court in Mexico City.

[56] Rodríguez Lorenzo, *La Carrera de Indias*, 41.

[57] F. Fernández López, 'El proceso de admisión de maestres de navíos en la Casa de la Contratación: expedientes y procedimiento', *Anuario de Estudios Americanos*, 75/1 (2018): 43–66.

cargo from one port to another for an agreed-upon price.[58] Relying upon criteria of utility, the law allowed a ship to be chartered with not just the owner but also with the *maestre*. For the purposes of accepting the cargo, both were considered as one and the same. Merchants could also operate through the *Consulado*, making them responsible as if they themselves had chartered the ship.[59] When the king himself wished to charter part or all of the ship, the Crown had preference over any merchant or other party, given that public needs had priority over private needs.[60] A royal licence was required to load or unload anything on land or at sea, or from one ship to another, be it day or night. This was the responsibility of the *maestre*, sailors, or merchants under penalty of confiscation of all the cargo. The only exception was if the ship arrived in port *con fortuna* (accident at sea) or fleeing from enemies, in which case unloading was authorized in the absence of a licence as long as royal officials were informed later on.[61]

The *maestre*'s greatest responsibility was to ensure the custody and safety of the cargo until arrival at port.[62] He was to receive the goods at the shore and return them when unloading, unless there was an order or custom to the contrary.[63] The laws of the Indies enumerated where cargo could be stored beneath deck so as to avoid over-loading. The deck should remain open, carrying only water, supplies, passenger trunks, and weapons. The boat should also remain empty. The *tolda*, or second deck, should also be free of cargo, and the artillery areas should be empty except the sailors' trunks and the cannons.[64]

If the ship and cargo were lost, or if the ship were unable to make the journey, the entire freight was not owed, just the correct proportion of what was actually saved, and only up to the point when the loss occurred. If the ship after leaving port returned to the same port, even in the case of *casus fortuitus*, the freight also was not owed. But if the

[58] From this point on I am relying on Hevia Bolaño, *Curia Philipica*, book 3, ch. 5, sections 1ff.

[59] Ibid., section 2.

[60] Ibid., section 5.

[61] Ibid., section 12.

[62] Veitia y Linage, book 2, ch. 8, no. 9.

[63] Hevia Bolaño, *Curia Philipica*, book 3, ch. 5, section 13.

[64] Ibid., section 14.

ship arrived at another port along the way, in that case it did have to be paid.[65] Payment of the ship's freight was generally made in the week following the ship's arrival at port. When the *maestre* arrived, he quickly moved to hand over the merchandise and collect the ship's freight. By law, he was authorized to hold onto the cargo until being paid. In the *Carrera*, freights (*fletes*) generally were registered by a notary public or before royal officials, according to the bill of lading.[66]

Just as merchants had their *Consulado de cargadores*, seamen had an association to defend their interests and help them argue before the king, the *Casa de la Contratación*, or the freighters themselves. The *Universidad de Mareantes* (1569) was a guild-like association of ship-owners, *maestres*, captains, and pilots working the *Carrera de Indias*. It was associated with the Confraternity of the *Virgen del Buen Aire*, and exercised great authority on many issues concerning navigation.[67] These included when fleets should depart; carpenters and caulkers guilds; tonnage (*arqueo*); expert opinions on preparing ships before they began their voyage; navigational instruments; examinations for pilots and *maestres* at the *Casa de la Contratación*; and choosing ships appropriate for the trip across the ocean.[68] The Crown benefited from the organization's technical advice, though the *Universidad* did not attain the same level of influence as that of merchants, given seamen's lower economic standing.

The Scene of Conflict: Lawsuits Regarding *Casus Fortuitus* and *Avería gruesa* Between Merchants and Seamen

Management and resolution of conflicts between individuals or institutions were consubstantial with public governance and the urban corporate

[65] Ibid., sections 22–24.

[66] Ibid., sections 27–28.

[67] Veitia y Linaje, in his *Norte de la Contratación*, has an entire chapter with thirty-six sections regarding this association; see book 2, ch. 7, "De la Universidad de Mareantes, su regla, ordenanzas y privilegios."

[68] García Garralón, *La Universidad de Mareantes*; L. Navarro García and M. C. Borrego Plá eds., *Actas de la Universidad de Mareantes* (Seville 1972).

structure. Both were more or less based on pre-established legal or quasi-legal models and legitimized by conventional judicial parameters.[69]

In our case, it is instructive to analyze conflicts between merchants and seamen in the Indies trade related to the context of General Average.[70] There have been many historical studies of conflicts between merchants, but seamen and the range of their activities have not properly been taken into account in the Spanish bibliography.[71] This is especially true within the *Carrera*. Both individuals (merchants and sailors) and the institutions involved in settling disputes (*Consulado de cargadores*, *Universidad de Mareantes*, *Casa de la Contratación*, and Council of Indies) are perfect stages for their analysis. The suits argued before the royal court of the *Casa de la Contratación*, along with other means for trying to resolve, contain, or mediate maritime merchant disputes offer an excellent opportunity in this regard.

The *Carrera de Indias* system featured a centralized royal jurisdiction.[72] The *Casa de la Contratación* from early on had civil and criminal jurisdiction over commerce and navigation in the Indies. Among other competencies, they resolved differences among merchants, agents, and *maestres* concerning companies, freight, insurance, and contracts.[73] Moreover, a 1597 disposition allowed authorities of the Indies to rule over General Average claims, declaring that causes about jettison or General Average were to be settled before ordinary justice or royal officers. The text of this disposition mentioned that

[69] A. Wijffels, 'Introduction: Commercial quarrels-and how (not) to handle them', *Continuity and Change*, 32/1 (2017): 1–9.

[70] Cases arising from the triangular relation of royal officers, merchants and seamen are many, some fell under the jurisdiction of the *Real Audiencia de la Casa de la Contratación de las Indias* of Seville, the main judicial institution of the *Casa de la Contratación*.

[71] There are some studies for other countries, see M. Fusaro et al. eds., *Labour, Law and Empire: Comparative Perspectives on Seafarers, c. 1500–1800* (London 2015).

[72] A. B. Fernández Castro, 'Entre la ley y la justicia: una aproximación a la cultural jurisdiccional castellana del siglo XVI a través de la experiencia de la Casa de la Contratación de Sevilla y del Consejo de Indias', *Historia Instituciones Documentos*, 44 (2017): 77–101.

[73] About risk related to General Average and insurances, see the contribution of Giovanni Ceccarelli in this volume.

> if any warship or fleet during a storm were to jettison cargo, artillery, anchors, cables, boats or other rigging of the ship, or were to receive any harm from enemies, and if any *maestre* were to claim *casus fortuitus* or General Average to the owners of the salvaged goods in order to share the damages, all of the above must be ruled over in the Indies before the land justice or before our royal officers, who will determine justice in accordance to law.[74]

Quickly the increasingly powerful organization of freighters asked the king to allow them to create a *Consulado* with its own jurisdiction over matters concerning commercial trade. The *Consulado* of Seville was authorized to decide matters concerning purchases, sales, exchange, insurance, and freight. In the cities of Burgos and Bilbao the consular tribunal had been the only one to intervene in mercantile and maritime matters, which allowed merchants to resolve their litigation independently.[75]

The establishment of the *Consulado* in Seville in 1543 meant that the *Casa de la Contratación* lost some jurisdictions related to the *Carrera de Indias*. Jurisdictions were fixed in 1583, an arrangement that lasted until the eighteenth century. In the charter of foundational privileges of the *Consulado* of Seville, the *Prior* and *Cónsules*—main representatives—were authorized to judge over any differences and claims concerning matters of trade and cargo from the Indies between merchant to merchant, companies or factors, on sales, exchanges, insurances, accounting and companies, ship freights, agency agreements, not only in Spain, but also in the Indies, and any matter related to trade and commerce with the Indies.[76] As a result, the *Consejo de Indias*—Council of Indies—became the only appeals court for matters involving more than 600,000 *maravedíes*, in an attempt to reduce litigation and leave only lawsuits involving large sums of money to the Council of the Indies. For lesser amounts, it was the *Casa de la Contratación* that heard appeals. Thus

[74] Real Cédula de 11 de septiembre de 1511, *Recopilación de Leyes de los Reynos de las Indias*, book 9, tit. 1, law 14. "Que el Presidente y Jueces de la Casa conozcan de lo ordenado para navegación, trato y comercio de las Indias." *Recopilación de Leyes de los Reynos de las Indias*, law 20, book 9, tit. 38.

[75] E. Trueba, *Sevilla: Tribunal de Océanos (siglo XVI)* (Seville 1988).

[76] Charter of original privileges of the *Consulado* of Seville (23 August 1543).

the only courts to hear cases concerning the Indies were the court (*Real Audiencia*) of the *Casa de la Contratación de las Yndias*, which heard both civil and criminal cases; the Council of Indies, which heard appeals; and the *Consulado* of Seville, which heard strictly mercantile matters.[77]

According to this division of labour,[78] starting in 1543 the *Consulado* should have been the only court to hear cases concerning *avería gruesa*. And yet, that was not the case. Even after implementation of rules governing consular judicial competencies, the *Real Audiencia* of the *Casa de la Contratación* continued hearing matters that were clearly mercantile and therefore clearly belonging to the merchants' jurisdiction. The *autos* section of the *Archivo General de Indias* shows that the *Casa de la Contratación*'s court after 1543 heard cases regarding payment for merchandise, freight charges, *averías* awaiting payment, taxes and fines, contracts, etc. Looking in more detail, we see that the court resolved some 120 suits for *averías gruesas* that should have been heard by the *Consulado*, and furthermore that the *Consulado*'s archives contain no complete lawsuits concerning *averías gruesas* for the Indies routes, though there are some for routes to Northern Europe and the Mediterranean.[79]

The question then becomes why the *Casa de la Contratación* kept jurisdiction over these matters, which strictly speaking were mercantile, and why the parties went to the *Casa* rather than to the *Consulado*, where both jurisdictions were compatible and able to settle conflicts over *averías gruesas*? We can suggest several explanations.

First, the *Recopilación de Leyes de los Reynos de las Indias* states that litigation by ship-owners, *maestres*, and sailors was the exclusive jurisdiction of the *Casa de la Contratación* in the first instance "with other jurisdictions having no competence", appeals were to be made to the Council of

[77] Fernández Castro, 'Entre la ley y la justicia', 85.

[78] The courts that oversaw the *Carrera de Indias* has specific jurisdictions, be they civil, criminal, or mercantile. Matters concerning religion and doctrine were heard by the Holy Office of the Inquisition.

[79] In the *Consulados* section of the *Archivo General de la Cámara Oficial de Comercio, Industria, Servicios y Navegación de Sevilla* (AGCOCISNS) there are seventeen cases concerning *avería gruesa* heard before the *Consulado*'s court from 1629 to 1813. Of them, three concerned *avería gruesa* for ships to the Indies, but these three cases are incomplete and lack a final ruling. The rest are related to European voyages.

Indies.[80] Cases involving *casus fortuitus* and *averías gruesas* in America would be heard before royal officials or *justicias de tierra*.[81] Therefore, if jurisdiction over *averías* in America was farmed out to extraconsular courts, in the peninsula the *Casa de la Contratación*'s court could similarly claim jurisdiction, which would make sense, given that *averías gruesas* were related to circumstances intimately linked to navigation and technical aspects of ships, navies, and fleets. The court with specialization in these matters was clearly the royal court of the *Casa de la Contratación*. After all, who better than its judges to decide if a ship docking in a port off its scheduled route was a malicious act? Or if the *maestre* had done everything possible before deciding to jettison goods in the midst of a storm? The *Real Audiencia* had sufficient powers and authority to claim jurisdiction over any proceedings or investigation conducted in American or peninsular ports by royal functionaries concerning Averages. It was the perfect site for understanding the interstices of the complex and hyperbureaucratic world of the *Carrera de Indias*.

Throughout the early modern era, one of the biggest headaches for authorities was jurisdictional conflicts among individuals or institutions with judicial competencies. It was usual for different entities to claim authority over the same thing, leading to endless disputes until it was finally determined who should hear the suit. Ports were strategic and sensitive spaces over which many such disputes took place. A multitude of authorities had a stake and was frequently at odds: governors, customs officials, naval officers, port captains, local administrators and, in the case of Seville, the royal court at the *Casa de la Contratación* and the *Audiencia de Grados*.[82] So the overlapping jurisdictions of the courts

[80] *Recopilación de Leyes de los Reynos de las Indias*, law 22, book 9, tit. 1.

[81] *Justicias de* tierra referred to authorities with judicial power on land as opposed to authorities with maritime jurisdiction, e.g., *corregidores* or municipal judges; see *Recopilación de Leyes de los Reynos de las Indias*, law 20, book 9, tit. 38: "If a navy or fleet ship in a storm has to jettison merchandise, artillery, anchors, cables, dinghies, or other riggings or if it has been damaged by enemies and the *maestre* declared *casus fortuitus* or *avería gruesa* to the owners of cargo that was saved and remained aboard so that the damages were divided among them, this shall be argued in the Indies before the *justicia de tierra* or our royal officials, who shall investigate and determine justice according to the laws in this regard."

[82] The *Audiencia de Grados* heard appeals in both civil and criminal matters. The *Recopilación de Leyes de los Reynos de las Indias* attempted to restore order between the *Casa* and the *Audiencia de Grados*, both of which claimed jurisdiction over suits affecting

connected to the *Casa* and the *Consulado* concerning *averías gruesas* in the Indies trade was certainly nothing new.[83] Ana Belem Fernández de Castro has argued that rulings of the *Casa* judges were perfectly suited to the needs of ocean navigation and long-distance trade, reducing operational costs and ensuring that contracts would be respected.[84]

It is logical that *maestres* and ship-owners favoured the royal court, which offered greater guarantees of a sympathetic hearing. If they filed complaints before the *Consulado* court, seafarers were perfectly aware that their possibilities of success were reduced. In suits concerning *averías*, the merchant-judges of the *Consulado* were resolving disputes between their own colleagues and seamen, so logically the latter would want to file their demands before more impartial third parties.[85]

There are additional possible reasons that are equally important. Judges at the *Casa de la Contratación* were experts in both commerce and navigation, and suits over *averías gruesas* concerned both. These royal

seamen and navigational matters. Increasingly, monarchs favored the *Casa* while at the same time calling on both institutions to avoid such disputes in the first place: *Recopilación de Leyes de los Reynos de las Indias*, book 9, tit. 1, law 30: Que el Presidente y Jueces de la Casa cumplan los despachos de la Audiencia de Grados, o respondan con igualdad en el tratamiento; Book 9, tit. 2, law 6: Que el Presidente tenga buena correspondencia con los Jueces Oficiales y Letrados y con la Audiencia de Grados, Asistente y Cabildo de Seville. On the judicial capacities of the *Casa de la Contratación* see Trueba, *Sevilla: Tribunal de Océanos*, 16–17.

[83] The coexistence of jurisdictional powers in the early modern period has been an issue widely treated by literature. In this regard, some examples are B. Clavero, 'La Monarquía, el Derecho y la Justicia', in *Instituciones de la España Moderna: Las Jurisdicciones* (Madrid 1996), 15–38; Idem, 'Anatomía de España. Derechos hispanos y derecho español entre fueros y códigos', in B. Clavero, P. Grossi and F. Tomás y Valiente eds., *Hispania: Entre derechos propios y derechos nacionales* (Milan 1989), 47–86; A. M. Hespanha, *La gracia del derecho: economía de la cultura en la edad moderna* (Madrid 1993); and his 'Justicia y administración entre antiguo y nuevo régimen', in Clavero et al. eds., *Hispania*, 135–204.

[84] A. B. Fernández Castro, *Juzgar las Indias. La práctica de la jurisdicción de los oidores de la audiencia de la Casa de la Contratación de Sevilla (1583–1598)* (Unpublished PhD thesis, European University Institute 2015), 240ff.

[85] According to Fernández Castro, Castilian judges in practice acted equitably, basing their sentences on proven facts. A judge was a guarantee of justice: "Entre la ley y la justicia: una aproximación a la cultura jurisdiccional castellana del siglo XVI a través de la experiencia de la Casa de la Contratación de Sevilla y del Consejo de Indias." On the role of states and courts of royal justice as the greatest warrantors of justice and stability, see D. C. North, *Institutions, Institutional Change and Economic Performance* (Cambridge 1990).

functionaries knew a great deal about preparing fleets and about navigation in the Indies, and they had the necessary abilities and experience to be impartial arbitrators.

We could even say that the *Consulado*'s judicial procedure was an imitation of ordinary justice, and litigants preferred the original to the copy. Even considering that consular litigation was theoretically quicker, usually oral, and did not require the participation of a licenced lawyer (*letrado*), these same factors might have a negative impact when it came to resolving *avería gruesa*. Given that litigation was generally complex, involved many parties, and was interlaced with trailing lesser cases linked to the principle case, it was often difficult to adequately fit it within existing consular judicial principles.

Thus, in line with Fernández de Castro's argument, which is fully applicable to our case, the royal court at Seville's *Casa de la Contratación* was the venue for resolving *avería gruesa* cases for the Indies trade. It offered judicial procedure that was attractive to litigants and based on *ius commune*. Royal judges acted as if they themselves were monarchs, following principles of justice and Christian values of mercy, kindness, and pardon.[86] Juan de Solórzano Pereira provided a good example of these Christian virtues when he stated that merchants who had suffered losses should not be allowed to compensate for the lost goods with salvaged goods, "because they must suffer and endure equally their good fortune and their bad fortune".[87] He pitied the freighters in these cases, saying that those who suffered should not be made to suffer more with prison sentences on account of shipwrecks or wars. When Solórzano served on the bench at the audiencia of Lima, he released a merchant jailed there for debts, having lost everything he owned during a shipwreck.

Royal judges, then, had a great deal of latitude for resolving suits relying on their own notions of justice and on their conscience. Discretion was the basis for the entire Castilian jurisdictional system, and sentences were neither explained nor justified, which gave magistrates greater freedom.[88] Additional individuals carried out important functions in the realm of royal justice, adding great assurance; suits over *avería*

[86] Fernández Castro, *Juzgar las Indias: La práctica de la jurisdicción*, 83.

[87] Solórzano Pereira, *Política Indiana*, book 6, ch. 14.

[88] Fernández Castro, "Entre la ley y la justicia", 81.

gruesa might involve a prosecutor defending the king's interests,[89] or a "defender of the absent dead", who represented victims and those unable to be present at court.[90] The jurisdictional model also included a phase for presenting evidence so as to arrive at a verdict.

It is interesting to note that in these sorts of suits, the *Consulado de Cargadores* itself would often appear as a litigant, defending the interests of the guild. It was present in fifteen of the thirty suits I have examined thus far.[91] The *Real Audiencia* always authorized its appearance despite protests from the seamen, who challenged its legitimacy and argued that the *Consulado* was not a direct party with interests such cases.[92] The fact is that the *Consulado*'s participation in *avería gruesa* suits tilted the balance somewhat to the side of merchants, especially if we take into account that seamen, despite having their own *Universidad de Mareantes*, did not avail themselves of it in litigation, though the seamen's *Universidad* did participate in other judicial proceedings.[93] So we can see that merchants and seamen often both turned to the courts.[94] Knowing how

[89] *Recopilación de Leyes de los Reynos de las Indias*, book 9, tit. 3, law 16: Que el Fiscal asista con los Jueces, conforme ordenare el Presidente.

[90] *Recopilación de Leyes de los Reynos de las Indias* has an entire section regarding the goods of the deceased: book 2, tit. 32, Del Juzgado de bienes de difuntos, y su administración y cuenta en las Indias, Armadas y Bajeles; Fernández Castro, "Entre la ley y la justicia." 86 and *Juzgar las Indias*, 231. For example, in a suit in 1589, Rodrigo Benegas defended the rights of the absent dead: AGI. Contratación, 730A, no. 1.

[91] Some examples: AGI. Contratación, leg. 722, no. 2 (1581), 'Autos de Andrés Felipe, maestre, contra los interesados en las mercaderías que venían en su nao'; AGI. Contratación, leg. 727, no. 24 (1586), 'Autos de Alonso de Buenavista, maestre de nao, con el Consulado de Sevilla sobre avería gruesa de dicha nao'; and AGI. Contratación, leg. 719, no. 9 (1580), 'Autos de Martín Monte Bernardo, dueño y maestre de la nao *Santa Isabel*, con los interesados en el oro y plata de dicha nao, sobre que se repartiese entre ellos el importe de la avería gruesa que hizo la nao'.

[92] For example, AGI. Contratación, leg. 734, no. 3 (1592).

[93] For example, AGI. Contratación, leg. 763, no. 10 (1605), 'Autos de la Universidad de Mareantes de Sevilla con Pedro Izquierdo, que tenía caudales del maestre Pedro Zamudio, sobre cobranza de las medias soldadas que estaban concedidas a la Universidad'; and AGI. Contratación, leg. 801, no. 15 (1619), 'Testimonio o compulsa de los autos seguidos por los diputados de la Universidad de Mareantes de Sevilla, con Pedro Lozano Salgado, tratante en pescado y vecino de Sevilla, sobre la continuación de la posesión de descargar sus naos con las personas que quisiesen'.

[94] The entire section of AGI. Contratación, called "Autos entre partes" is an eloquent indication.

to litigate was as important for freighters and navigators as knowing about accounts, ship gaging, or ship stowage.

Along with judicial conflict resolution, merchants and seamen had other strategies for resolving disputes. The most frequent involved extra-judicial arbitration to which both parties agreed.[95] Such agreements could be made aside from, before, or during the suit itself; often while there were heated arguments going on at court, perfectly civil conversations were taking place on the steps of the Seville marketplace so as to put an end to the dispute.[96] The parties might reach an agreement on their own and then ask the court for orders regarding those sections that had not been complied with.[97] Both strategies were plausible and legitimate ways of achieving the best agreement for both sides. One of the benefits of arbitration was that it was quick, inexpensive, binding, and a form of pacification. Arbitrators acted as judges and at times they created law. Both sides generally chose the third party by consensus, though that choice might reenact conflicts between them. For example, in the dispute between Pedro Araneder, owner and *maestre* of the ship *Santa Ana*, and merchants with claims to the cargo on board from Havana to Spain, the *maestre* named another *maestre* to be the arbitrator, and the merchants named another merchant.[98]

One peculiarity of Indies cases is that decisions were enforced by the constables of bailiffs (*alguaciles*) of the *Casa de la Contratación*. The ruling of an arbitrator was executive and could be executed by either of

[95] A. B. Fernández Castro, '¿Quitarse de pleitos? Litigiosidad mercantil y práctica arbitral en la Carrera de Indias a finales del siglo XVI', *Revista de Indias*, LXXIX/275 (2019): 51–77.

[96] About out of court settlements in Genoa see the contribution of Luisa Piccinno in this volume.

[97] For example, in 1588 the *maestre* and other interested parties in the cargo of the *Santa Cruz*, which had come from Santo Domingo, agreed to pay for just half the jettison expenses; AGI. Contratación, leg. 729, no. 2. In another case of agreement between parties, the owner of *Nuestra Señora de la Begoña*, Captain Agustín Landecho, and the *Consulado de Mercaderes* agreed that he would receive less than half the value of the ship; AGI. Contratación, leg. 741, no. 6 (1596).

[98] AGI. Contratación, leg. 740, no. 9 (1595), 'Autos de Pedro de Araneder, maestre, con los interesados en su nao sobre avería gruesa'. Arbitration and mediation was a pragmatic form of conflict management all over Europe, and was aimed more at solving the problem than apportioning blame. On this subject, see how Hanseatic towns used this policy of mediation and arbitration during the middle ages in Wubs-Mrozevicz, 'The late medieval and early modern Hanse', 66–70.

the parties in a summary procedure. In 1588 Gonzalo Pérez, *maestre* of the ship *Santa Cruz*, asked the *Audiencia* to execute an agreement he had reached with interested parties in the city of Santo Domingo. According to that agreement, all parties had agreed on a 50% payment of jettison expenses, prorated to their respective share. The *maestre* presented the agreement in Seville against those parties who had not complied with their share.[99]

Sentences were quick, as procedural formalities, limited judicial personnel, and long arguments were not factors. In cases of *averías gruesas*, bills of lading for the cargo in question issued by public notaries or *Casa* officials amounted to executive title.[100] These legal documents were often presented by merchants to ordinary courts (*Audiencia de Grados*, in Seville,[101] or other first-instance courts) or to the *Real Audiencia de la Contratación* so as to force *maestres* to immediately hand over the goods. If the seamen were not able to deliver the cargo or make payment equivalent to its value they were immediately imprisoned.[102] This legal tool was a means to push for a settlement and obtain better terms for freighters.

There were clear advantages to arbitration but it was not infallible and at times did not lead to a satisfactory solution for both sides. In cases of *averías gruesas* there were instances in which distributions by third parties (*las cuentas sobre avería gruesa*) were challenged by other interested parties. Even so, when arbitration was chosen as the means of settlement, the final decision, to be executed by the court itself, was also accepted.[103]

[99] AGI. Contratación, leg. 729, no. 2 (1588), 'Autos de Gonzalo Pérez, maestre de nao, con los interesados en la avería gruesa de ella sobre que pasasen por el repartimiento que hizo Julio Ferrufino y se le diese mandamiento de ejecución contra los que no la pagaron'.

[100] Hevia Bolaño, *Curia Philipica*, book 3, ch. 5, no. 28.

[101] The *Real Audiencia de los Grados de Sevilla* was a collegiate court with jurisdiction in civil and criminal matters established by the Crown at the end of the fifteenth century.

[102] *Maestre* Melchor García landed in jail, first in the public jail and then in the one corresponding to the *Casa*, after not paying his fines. Merchant Lorenzo de Vallejo had asked the *Audiencia* to jail García because the latter was not from Seville nor did he have property there, and therefore was a flight risk. Additionally, he had not paid prior debts. AGI Contratación leg. 721, no. 17 (1581).

[103] In A. Cordes and P. Höhn, 'Extra-Legal and Legal Conflict Management among Long-Distance Traders (1250–1650)', in H. Pihlajamäki et al. eds., *The Oxford Handbook*

Suits for *Avería Gruesa* Before the Royal Court at the *Casa de la Contratación* in Seville

In general terms, *avería gruesa* suits before the *Casa de la Contratación* were filed by ship-owners or *maestres* against those involved in transporting cargo on ships to the Indies.[104] *Maestres* were more often the main actors because they were most familiar with the circumstances of the voyage and could better represent their own interests. They generally had the capacity to represent the ship-owner, and the latter was bound *in solidum* by the *maestres*' acts.[105] Sometimes the *maestre* would grant powers to the ship-owner to represent him, and the latter would take responsibility for court appearances, allowing the *maestre* to continue sailing and trading.

Suits began with a document identifying the plaintiff, the ship, the route, the sort of navigation (with a fleet or alone), and the year of the voyage, then followed a succinct summary of the circumstances leading to the *avería gruesa*. The petition ended with demands that *avería gruesa* be declared, that the *maestre* not be held responsible for damages to the cargo, and that all interested parties share the costs and expenses as a result of the events. Sometimes when cargo was damaged by an unanticipated event, the *maestre* asked the court to order the merchants to receive the goods in the state in which they had arrived, and that the freights be paid for the entirety with no discount.

This demand marked the start of the suit proper. Each party appointed a legal representative who would appear for them in court. In those cases in which part of the cargo was silver belonging to the king,[106] it was the royal prosecutor who appeared, speaking in defence of the Crown's interests. The same thing happened in cases of "defence of the dead and the

of European Legal History (Oxford, 2018): 509–528, there is an interesting discussion on the questioning of arbitrage and mediation as the indisputably most efficient way for conflict management are explored.

[104] Of the suits I have analysed, twenty-one were filed by ship masters, four by the owner (who was also the *maestre*), one by an owner-captain, one by the owner and one by the ship's notary because the *maestre* was "sailing with the galleons;" AGI. Contratación, leg. 730A, no. 5 (1589).

[105] Hevia Bolaño, *Curia Philipica*, book 3, ch. 5, section 2.

[106] Silver bound for the Iberian Peninsula from American mines was considered the property of either the king or the merchants. On this see Haring, *Comercio y navegación entre España y las Indias*, 195ff.

absent" (*Defensor de los muertos y ausentes*) due to the death of merchants or the absence of individuals who could not be advised of the litigation. In the case of ships whose holds were full of goods for the Indies there often were a huge number of merchants involved, some of the powerful men and others less so, responsible for smaller amounts of goods. The multitude of owners of goods turned suits over *averías* into an endless series of notifications regarding every step of the process. Sometimes, to save time and money, a more or less large group of merchants would simply appoint one of their own to represent them at court.[107]

The suit continued with defence briefs followed by the presentation of evidence, when the parties backed up their allegations with proof, usually documents or witness testimony. Then there was a final summation, and litigation was closed with the court's ruling. In cases of *avería gruesa*, if the court sided with the *maestre*, then the parties chose one or more third-party calculators to work out the division of payments.[108] These men were experts in accounting and the Indies trade, and both sides trusted them to draw up an agreement, a task that required them to be professional, fair, and exact. Sometimes we find the same men involved in multiple avería gruesa cases, showing that it was a field of great specialization; among these men were Julio Ferrufino,[109] Julián Izquierdo,[110] Diego Pérez de Porras,[111] and Andrés Franco.[112]

[107] Court costs were reduced as a result. For example, twelve merchants chose Neroso del Nero in 1585 to represent them in a suit at the royal court; AGI Contratación leg. 722, no. 2, 'Autos de Andrés Felipe, maestre, contra los interesados en las mercaderías que venían en su nao' (1581–1582).

[108] These calculators, *terceros calculadores*, were experts in commerce and navigation and thus were able to draw up plans for dividing the costs of *avería gruesa*. They usually were picked by both sides but the court reserved the right to make its own appointment in case of disagreement. In that case, the parties usually allowed the court to choose a third party, but there were suits in which two or more third parties were chosen. Sometimes seamen would name one of their own and merchants would do the same. On *terceros calculadores* see A. M. Bernal, 'La contabilidad como instrumento de conciliación y arbitraje en la Carrera de Indias (siglos XVI–XVIII)', *Anuario de Estudios Atlánticos*, 54/I (2008): 513–539.

[109] AGI. Contratación, leg. 722, no. 2 (1581); leg. 714, no. 2 (1575); leg. 730A, no. 10 (1589); and leg. 732, no. 2 (1591).

[110] AGI. Contratación, leg. 714, no. 2, 2 (1575); leg. 722, no. 2 (1581); leg. 721, no. 17 (1581).

[111] AGI. Contratación, leg. 721, no. 7 ((1585); leg. 742, no. 22 (1596).

[112] AGI. Contratación, leg. 730A, no. 5 (1589); leg. 732, no. 2 (1591).

In this division of payments (*repartimiento*), interested parties were assessed proportionately to the affected cargo. The document drawn up in this regard was considered to be executive, and once it was presented to the court both sides were expected to comply. The suit could end there, though that was not often the case. Given the large number of merchants affected by *avería gruesa* in any given ship there were always some who did not pay what they owed. This led to a new phase, or secondary suit, in which the court issued payment orders and possibly orders to seize and auction off goods belonging to the merchants in arrears. Once everything owed had been collected, it was given to the *maestre*. All these proceedings could go on forever, and though they were necessary they ended up making the process far more expensive.

These, then, are the outlines of *avería gruesa* suits in the *Carrera de Indias*. There were cases in which hundreds of merchants were involved, in which the evidentiary phase took months to complete, and in which collateral questions were added to the suit, creating secondary suits. Given that ships often travelled in convoys, if a storm attacked, say, in the Old Bahama Channel, it was likely that several ships would declare *averías gruesas*. As a result, the relevant litigation would end up before the court at the *Casa de la Contratación*.[113]

In saying that *averías gruesas* provide a window onto the world of the Indies trade, we do so with amazement at the complexity and dynamism of this *océano de negocios* and the abundance of information we can acquire through this study. *Averías gruesas* allows us to talk about issues that are basically mercantile: how freight was charged and ship-ownership transferred, about registration certificates, identification and the types of marks on the products, economic assessments and delivery, pricing, taxes in American ports, how agents and consignees behaved, claims regarding delivery, discussions about damaged goods, the deeds of sale and settlement, and collections.

But these suits also reflect *maestres*' navigational responsibilities such as fitting out ships, choosing the best ship for a given voyage, the correct

[113] That was the case in 1595 after Captain General Francisco Coloma ordered that the fleet spend the winter in Havana. The subsequent months-long delay in its return to Seville led to two *avería gruesa* suits: AGI. Contratación, leg. 740, no. 1, 'Autos de Cristóbal Coello, dueño y maestre de nao, con los interesados en ella sobre avería gruesa'; and AGI. Contratación, leg. 738, no. 12, 'Autos de Domingo de Utarte, maestre de nao, con los interesados en ella sobre avería gruesa'.

loading of cargo in the hold, deciding which objects could be taken on deck, knowledge of the route and the best way of navigating (alone or in a convoy), the necessary licences for going to the Indies, inspecting the objects and crew, the legal issues behind going into port on account of storms or *casus fortuitus*, crewmen's demands for wages, and his pilots' duties if ships were lost. The range of matters that a *maestre* had to attend to was broad, and they all concerned maritime laws and uses. He was in charge of the operations surrounding the ship. In the sixteenth century, the Crown frequently sequestered ships for military purposes as *capitanas* or *almirantas* in the Indies fleet. These ships were especially strong, easy to navigate, or had recently left the shipyard. *Naos boyantes y marineras* (in a very good shape for sailing), they were excellent candidates for becoming naval vessels. Two ships escorted the rest of the merchant fleet, and though there were laws prohibiting their use for commercial purposes, in fact part of their holds was used for exactly that. That is where the treasure was stored, including silver belonging to the king or to individuals and other precious products such as gold, silk, porcelain, grains, and cochineal. These two ships bore, respectively, the fleet's captain general and the admiral.[114]

Sailors' Wages and Freight Payment in Cases of *Casus Fortuitus*

One of the *maestre*'s first duties upon reaching port was to pay his men's wages. According to law, payment must have been made within three days after arriving at destination. Wages were considered to have preference over other debts, and if they were not paid the maestre was taken to jail until they were. If the wage agreement with the crew or the amount owed was unclear for any reason, this might later be part of the evidence phase of litigation for *avería gruesa* and would be considered summarily and with precedence. Until the dispute was resolved, sailors were to be fed by the *maestre*.[115] *Maestre* Francisco Martín Rucho, for example, returned to Seville in 1575 on the *Nuestra Señora de la Concepción* after a very

[114] *Recopilación de Leyes de los Reynos de las Indias*, law 99, book 9, tit. 15.

[115] Hevia Bolaño, *Curia Philipica*, book 3, ch. 4, sections 40ff.

troubled voyage that was an economic disaster. His debts were so ruinous that he asked the court to sell his ship in order to pay his crew's wages.[116]

Regulations provided that seamen be paid once the trip was over and they were back in Spain. But high desertion rates on the Indies route were such that the custom was altered, and men were paid half their salary on their way to America, and the other half once they were back in Seville.[117] But if the ship suffered an accident, *avería gruesa*, or forced landing, then the crew's ability to claim their wages might be affected. That is what happened in 1581 when the sailors and cabin boys on the *San Miguel* went to court. As a result of an *avería gruesa*, *maestre* Andrés Ferrufino had been unable to get payment for the freight. The sailors were far away from home, they hadn't been paid, and they were waiting for the litigation to resolve, "because by law our labour, whatever it be, must be paid".[118] Similarly, in 1596, when the *San Buena Ventura*, whose *maestre* was Pedro de Veiztegui, arrived in the Cuban port of Bayajá in very bad shape, the governor of the island filed suit to determine if in fact there had been a *casus fortuitus* forcing the ship to change its route. In that same lawsuit, sailors asked that half their wages be paid there so that they could remain free and continue their voyage.[119]

Shipwrecks and Fleet Captains General: The Peculiarities of the Indies

Shipwrecks were included within *averías gruesas* for navigation to America. Generally, after a wreck there were legal proceedings to determine responsibilities, especially of the pilot and the *maestre*.[120] But in

[116] AGI. Contratación, leg. 714, no. 2, 'Autos de Francisco Martín Rucho contra varios compradores de oro y plata sobre que reciban las mercaderías que se averiaron en su nao en una borrasca (1545–1575)'.

[117] Pérez-Mallaína Bueno, *Los hombres del océano*, 106ff.

[118] AGI. Contratación, leg. 721, no. 7, 'Autos de Andrés de Ferrofino, maestre, con los cargadores de su nao sobre abono de avería gruesa' (1581).

[119] AGI. Contratación, leg. 742, no. 22, 'Autos de Pedro de Veiztegui, maestre de nao, con los interesados en las mercaderías de ella sobre avería gruesa' (1596)'.

[120] For example, AGI. Contratación, leg. 712, no. 6, 'Inventario, almoneda y autos sobre la pérdida de la nao *Santa María la Mayor*, su maestre Juan de Agurto, que se quemó estando surta en el puerto de Bonanza' (1569).

some cases, the *maestre* and/or owner of the ship might go before the royal court to ask that all interested parties contribute.

The voyage of the *Santa Ysabel* in 1580 under the command of Captain Martín de Montebernardo ended in a shipwreck when it was travelling from Nombre de Dios to Cartagena de Indias.[121] Shortly after leaving port, she quickly began taking on water, prompting the captain general, Cristóbal de Eraso, to order that the cargo be transferred. That operation took some twelve hours, during which the king's silver was passed over to another ship, while the silver belonging to other individuals remained on land, in Cartagena. All these steps were properly recorded by a royal notary. Montebernardo's ship ended up at the bottom of the sea after all its human and material resources had been devoted to saving the silver belonging to the Crown and to individuals. Had the crew instead devoted their efforts to repairing and salvaging the ship, sacrificing the cargo, the ship might have been saved. But in these cases, the economic value of the saved goods was the priority, because the value of the cargo far and away exceeded the value of the ship and its riggings. In short, the ship was sacrificed to save the cargo. According to Montebernardo's statements in the *avería gruesa* suit, heard by the *Casa de la Contratación*, for the past forty years the custom had been that owners and *maestres* of ships might put their ships in danger and let them sink or flood while fighting to save the gold, silver, pearls, and merchandise whose loss would add up to far more. In such a case, the value of the ship, her sails and rigging must be divided up as *avería gruesa* among everything saved. That was the opinion of the court, which ruled that it was a case of *avería gruesa* and that all interested parties pay the value of the ship and its rigging.[122] Such cases bring into sharp relief the peculiarity of Genereal Average proceedings within the *Carrera de Indias*, primarily about the effects of sailing in convoy, and the consequence option to sacrifice ships to save the more valuable cargoes.

Something similar occurred with the *San Miguel* in 1589 in shoals by Punta del Diamante, near the bay of Cádiz. The ship was forced to manoeuvre towards the beach so as to save its goods, but the ship was

[121] AGI. Contratación, leg. 719, no. 9, 'Autos de Martín Monte Bernardo, dueño y maestre de la nao *Santa Isabel*, con los interesados en el oro y plata de dicha nao, sobre que se repartiese entre ellos el importe de la avería gruesa que hizo la nao' (1580).

[122] Ibid. The court supported the testimony by a witness before the *Real Audiencia de la Contratación de las Indias*, 22 January 1583.

lost. The court declared *avería gruesa* and obliged all interested parties to pay towards the value of the ship, plus the rigging.[123] Decisions taken by the captain general were of special significance in cases of complicated navigation, when choices had to be made that might endanger survival of the crew and the cargo.

According to Juan de Hevia Bolaño, captains general had the same powers as the king and were supreme commanders of the fleet.[124] Their training was military, though not necessarily with the navy. They were chosen among many candidates for each expedition; the first round was picked by the *Casa de la Contratación* and the finalists by the king and the Council of Indies.[125] Their wide range of responsibilities on board gave them enormous power.[126] Among other tasks they were exclusive judges for all civil and military matters on the convoys. Their principal function was to ensure the safe return of the fleet to Seville with all the treasure and private cargo on board. It was a military job that required great experience and knowledge of the sea.[127]

They also had to ensure that the navigation in convoy complied with established norms and regulations. If a ship had a problem and took on water, lost a tiller, or damaged its masts, the general or any other war commander should attend to it to avoid the damage growing any worse. But if, despite all the measures taken, the damage was such that the ship itself was in danger, the commander could order that human lives, the king's treasure, merchants' goods, supplies, munitions, artillery, and weapons all be saved. Organizing this operation was not simple, and the commander had to prevent bad behaviour, theft, and robbery and make sure that all damaged goods were properly accounted for. Both the cargo and the human beings were divided up among the other ships, according to the general's orders.

[123] AGI. Contratación, leg. 730A, no. 10, 'Autos de Juan Bautista de Miranda, dueño de nao, contra los interesados en las mercaderías que se cargaron en su nao sobre avería gruesa' (1589).

[124] Hevia Bolaño, *Curia Philipica*, book 3, ch. 3, section 4.

[125] Pérez-Mallaína Bueno, *Los hombres del océano*, 100–101.

[126] P. E. Pérez-Mallaína Bueno, 'Generales y Almirantes de la Carrera de Indias: una investigación pendiente', *Chronica Nova*, 33 (2007): 285–332.

[127] *Recopilación de Leyes de los Reynos de las Indias*, laws 1ff, tit. 15, book 9, 'De los Generales, Almirantes y Gobernadores de las Flotas y Armadas de la Carrera de Indias'.

The case of *Nuestra Señora del Rosario* is an excellent example of the repercussions on the Indies trade. The captain general of the fleet was Francisco Coloma.[128] The ship in question had left San Juan de Ulúa in 1594 bound for Havana carrying skins, grain, indigo, silk, silver, *reales* (coin), and other goods. Coloma decided that the fleet should winter in Havana, given the imminent danger of an enemy attack, but a decision of that nature was a disaster for trade. The silver and remaining cargo was unloaded to be stored in warehouses, but some of the skins were left exposed to the air once the warehouses and storage areas were full. *Maestre* Cristóbal Coello was forced to spend extra to stack and shake out the leather so it would not rot during the wet winter. Extra money also was spent on the ship's hull given the huge amount of rain that winter. Finally, when it came time to make the return voyage to Spain and the *maestre* had the loaded ship ready to leave, Captain General Coloma ordered Coello to remove part of the cargo to make room for the silver belonging to the king and to others, turning the ship into a war ship. Coello divided up the cargo among three other ships in the same fleet.

During the return voyage, the fleet encountered big storms, and the main mast of the *Nuestra Señora del Rosario* broke. The *maestre* ordered his men to cut the rigging along with part of the sails, a top mast, an anchor, and other items, which were all thrown overboard to save the lives of the crew. The silver was passed to the other ships, and part of the less valuable cargo remained in the hold. Once the sailors saw the silver being moved to safer ships, they decided to abandon ship. Only after negotiations and an offer of 3,200 ducats from the *maestre* were the men persuaded to stay and, though their lives were in danger, return on it to Spain with the broken prow, no main mast, no tiller, and obliged to continually bail out water. Miraculously, the ship managed to make it back to Seville.[129]

There were multiple instances of *avería gruesa* in the case of the *Nuestra Señora del Rosario*. It was an economic disaster. The expense of spending the winter in America, transferring cargo ashore, or passing it over to other ships in the middle of a storm, along with the costs of paying off the crew to not abandon ship was all included in the petition

[128] AGI. Contratación, leg. 740, no. 1, 'Autos de Cristóbal Coello, dueño y maestre de nao, con los interesados en ella, sobre avería gruesa' (1595)'.

[129] Ibid., petition for *avería gruesa* presented by ship owner and *maestre* Cristóbal Coello, 28 June 1595.

before the court in Seville asking it to declare *casus fortuitus* and *avería gruesa*. The royal court at the *Casa de la Contratación* ruled in favour of the *maestre*'s requests and ordered that the costs be divided up. The suit took no less than thirteen years to resolve, with more than six hundred pages of documents.

In 1595 General Fernando de Lodeña ordered *maestre* Rodrigo Madera to jettison part of the cargo of his ship—the *Espiritu Santo*—in order to make space for the king's silver. The order was delivered by the captain of another ship that had been seriously damaged during a storm. Madera made it clear that he was opposed to the jettison and that he was obliged to comply only because the order had come expressly in His Majesty's name.[130]

Leaving aside jettisons and load shiftings, one of the strangest cases of *avería gruesa* is that of the *Nuestra Señora de Begoña*, the leading ship of the 1594 *Tierra Firme* was under the command of its *maestre* and owner, Agustín de Landecho. The ship carried silver and goods from San Cristóbal de la Habana to Seville. Upon navigating near the Old Bahama Channel she ran into a storm, forcing the crew to cut the main mast and lighten the rigging. The ship docked in San Juan, Puerto Rico, right when the corsair fleet of Sir Francis Drake was in the vicinity, ready to attack whichever port Landecho's ship might be in. The fleet general, who also was governor of the island, along with other authorities decided to deliberately sink the ship so as to block entry into the port and thus protect the city from enemy attack. The silver was transferred to frigates being fitted out in port.[131]

As a result of Landecho's subsequent suit demanding *avería gruesa*, the captain requested 21,000 ducats, which he said was the ship's worth. The *Consulado de Mercaderes*, a party to the suit, alleged that the ship's value must be divided up not only among the interested parties of the cargo but also among the inhabitants of San Juan, along with the city itself. The argument was that the city's people and property had benefitted from Landecho's sacrifice. The city had not been sacked and, as a result, it should help pay the expenses along with the merchants. The *Contratación*

[130] AGI. Contratación, leg. 740, no. 8, 'Autos del capitán Rodrigo de la Madera, dueño y maestre de nao, contra los interesados en las mercaderías de ella, sobre avería gruesa' (1595).

[131] AGI Contratación leg. 741, no. 6, 'Autos del capitán Agustín Landecho, dueño de nao, con los interesados en su nao sobre avería gruesa' (1596).

court declared *avería gruesa* and forced the merchants to pay 13,000 ducats for the ship and another 2,500 for the main mast and rigging that previously had been jettisoned during the storm.

Of the thirty *avería gruesa* suits I have examined thus far, eleven include the involvement of captains general regarding commerce. This is still a provisional percentage, yet nonetheless highly revealing concerning the interaction between commerce and navigation and the impact of royal agents in these affairs. Even though their post had been created to resolve matters concerning fleet navigation, decisions by captains general often deeply affected commercial interests.

Conclusion

The institution of *avería gruesa*, based on principles of mutual aid and solidarity implemented by participants in commercial maritime traffic, shared elements with the system of fleets and navies on the Indies route.

The essential principles of navigation to America were based on mutual aid among ships in a convoy. In the case of *casus fortuitus*, accidents, or enemy attack, it was especially important that stronger ships help those that were in trouble. Therefore, the principles inspiring navigation to the West Indies were based on defensive criteria and on saving treasure and commercial cargo rather than protecting individual interests or the profits of a few merchants.

Additionally, disputes between merchants and seamen in *avería gruesa* suits reveal each group's strategies for protecting their interests. It was not only merchants who participated in decisions to reduce risks but also seamen, whose knowledge and experience contributed to making navigation and overseas routes safer. They made a decisive contribution towards minimizing maritime risk.

The officers of the Crown played an important role in *the Carrera de Indias* through its judges and agents regarding *casos fortuitos* and *averías gruesas*. In particular the captains general of the fleets, despite holding posts that were, above all, military in nature, had broad competencies regarding decisions affecting commerce to and from the West Indies.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

The Genoese Experience

General Average in Genoa: Between Statutes and Customs

Antonio Iodice

General Average (GA) is an institution aimed at better bearing the business risks of maritime trade in the face of accidental events. It redistributes the cost of damage to a ship or the goods it is carrying if it becomes necessary to save either the ship or the goods in an emergency. The evolution of the Genoese legislation, analyzed through the Genoese Civil Statutes, legal treaties and GA practices, provides an overview of a local reality with deep ramifications at Mediterranean and European level. Through

The research for this essay was conducted thanks to funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and Innovation Programme ERC Grant agreement No. 724544: *AveTransRisk—Average—Transaction Costs and Risk Management during the First Globalization (Sixteenth-Eighteenth Centuries)*. Translated by Monica Chojnacka.

A. Iodice (✉)
University of Genoa, Genoa, Italy
e-mail: ai290@exeter.ac.uk

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_10

conventions and customs often shared across distant areas, the progressive development of this institution and the affirmation of the rules regulating it was a gradual and non-linear process. Such process was often simplified through reference to the oft-shared origins in Roman law. The Glasgow agreements and the subsequent 'York-Antwerp Rules' (YAR), published for the first time in the late nineteenth century and still in force today, were the culmination of this process.[1]

The fall of the Western Roman Empire and the crisis of the juridical-normative unity of which it had been the guarantor, pushed the countries facing the Mediterranean Sea to develop their own maritime regulations over the early Middle Ages. Among these, most states developed their own rules concerning the institution nowadays known as GA, although there were mutual influences.[2] The differences among these rules made it necessary to formulate codes and compendia of laws, or else resort to the jurists' opinions to provide practical indications to merchants, shipmasters and institutions.[3] Local maritime laws on international trade had to be recognized, understood and respected by all, even by foreigners arriving in a port. As in the Genoese case, the codes and statutes of different maritime realities often referred to the authority of Roman law, or to commonly accepted customs, in order to provide common ground and the necessary authority given the divergence of local legal and customary

[1] P. Musolino, 'A relic of the past or still an important instrument? A brief review of General Average in the 21st Century', in M. Musi ed., *Il Diritto Marittimo—Quaderni I—New challenges in Maritime Law: de lege lata et de lege ferenda* (Bologna 2015), 257–288; M. Harvey, *The York-Antwerp Rules: The Principles and Practice of General Average Adjustment* (Boca Raton 2014); W. Tetley, 'General Average now and in the future', in R. Roland ed., *Liber Amicorum* (Brussels 2003), 419–450; G. Hudson and M. Harvey eds., *The York-Antwerp Rules*, 3rd ed. (London 2010).

[2] The expression *General Average/Avaria Generale* is a modern one. In the Genoese sources, one finds only the term *getto* or *avaria*, as will be seen subsequently. See the essays of Andrea Addobbati and Hassan Khalilieh in this volume regarding etymological issues.

[3] One of the recurring themes in today's quest for uniformity in maritime law is the argument that different states applied uniform rules in the past. Scholarly discussions regarding a hypothetical *lex mercatoria* are also stimulated by the idea of these "international rules", on this see V. Piergiovanni ed., *From Lex Mercatoria to Commercial Law* (Berlin 2005). For a comparison with contemporary debates, see O. Toth, *The Lex Mercatoria in Theory and Practice* (Oxford 2017).

frameworks.[4] All of these measures generated transaction costs related to risk management, costs with which operators had to deal.[5]

Legislation concerning Mediterranean maritime traffic, perhaps also for this reason, does not seem to have been influenced by criteria of 'commercial competition' between socio-economic or rival political forces, which became more evident between the seventeenth and eighteenth centuries.[6] The legislation appears to have been based on criteria such as personal trust and a sense of fairness in business dealings, a framework designed to share the risks and encourage maritime trade. No single social or institutional actor was able to impose its own rules. For this reason, it seems that a scenario of 'perfect competition' prevailed, in which the regulations could interact with each other, to face together the unpredictability of a sea voyage. From this perspective, GAs procedures follow sets of rules and conventions that constitute an exemplary case of a long-term, non-market, self-regulating institution.

The historical evolution of the rules governing GA is particularly interesting when observed from the Genoese perspective at a particularly dynamic moment for the Republic: the years between the end of the sixteenth and the seventeenth centuries. In the aftermath of the alliance with Spain, and the reforms that had structurally modified the functioning of the State, the new Civil Statutes promulgated in 1589 regulated also some aspects of maritime trade such as GA and jettison.[7] In particular, Genoa legislated in this area in precise detail and with the clear goal to control the procedure at an institutional level, a solution that the great national monarchies would try to adopt only about a century later. The procedural peculiarities with which GA was regulated were the result of the consolidation of a specific legal tradition and, at the same time, the codification of customs shared by most of the Mediterranean area.

[4] According to Pardessus, this was the case in the Genoese statutes: J. M. Pardessus, *Collection des lois maritimes antérieures au XVIII siècle*, 6 vols. (Paris: Imprimerie royale 1828–1845), IV: 521.

[5] See D. North, 'A transaction cost theory of politics', *Journal of Theoretical Politics*, 2/4 (1990): 355–367.

[6] G. Calafat, *Une mer jalousée. Contribution á l'histoire de la souveraineté (Méditerranée, XVIIe siècle)* (Paris 2019).

[7] See A. Pacini, *I presupposti politici del "secolo dei genovesi". La riforma del 1528* (Genoa 1990); on the events relative to the promulgation of these statues, see R. Savelli, 'Statuti e amministrazione della giustizia a Genova nel Cinquecento', *Quaderni Storici*, 37/110 (2002), 347–377.

In particular, by comparing Genoese legislation with the volume of the *Consolat de Mar* of Barcelona, which served as a juridical model for several centuries across most of the Mediterranean basin, and also by studying the interpretations of some of the jurists of the period, we see an attempt to create an autonomous regulatory system, inserted into the pre-existing legal framework.[8]

Scholarly publications on the *Consolat* of Barcelona, and its influence on subsequent European legislation, are abundant, given the constant relevance of this topic, which has grown hand in hand with the increasing importance of long-distance trade through the centuries. In particular, there are numerous analyses and reconstructions aimed at investigating the evolution of rules about GA in Antiquity and in the modern period.[9] However, there is a substantial historiographic void regarding the adoption and evolution of these regulations within specific contexts, including the Genoese one. Authors such as Jean-Marie Pardessus or Antonio Lefebvre d'Ovidio constitute the main points of reference here. However, there is no organic reconstruction that connects the different models and deepens our understanding of the various rules that governed the functioning of GA in the main European and Mediterranean ports.[10] Seen from this perspective, the Genoese Civil Statutes represent an essential element for the reconstruction of the regulatory evolution of GA. Despite the research conducted in this area by important legal historians such as Vito Piergiovanni and Rodolfo Savelli, there has not been a real follow-up study on the use of the Statutes through more specific investigations.[11] Giuseppe Felloni, one of the first scholars to use Genoese GA sources for

[8] During the seventeenth century, there were Genoese claims of sovereignty in the Ligurian Sea, see T. A. Kirk, *Genoa and the Sea: Policy and Power in an Early Modern Maritime Republic (1559–1684)* (Baltimore 2005), 118–127.

[9] One of the main references for English literature on GA is W. Ashburner, *The Rhodian Sea Law* (Oxford 1909); see also F. D. De Martino, 'Note di diritto romano marittimo, Lex Rhodia II e III', *Rivista del Diritto della Navigazione*, 4 (1938): 3–86; N. Bogojevic-Gluscevic, 'The Law and Practice of Average in Medieval Towns of the Eastern Adriatic', *Journal of Maritime Law & Commerce*, 36/1 (2005): 21–59.

[10] See A. Lefebvre d'Ovidio, 'La contribuzione alle avarie comuni', *Rivista di Diritto della Navigazione*, I (1935): 36–140; Pardessus, *Collection des lois maritimes*, IV: 439–544.

[11] R. Savelli, *Politiche del diritto ed istituzioni a Genova tra Medioevo ed età moderna* (Genoa 2017); V. Piergiovanni, *Norme, scienza e pratica giuridica tra Genova e l'Occidente medievale e moderno*, 2 vols. (Genoa 2012).

a statistical analysis of maritime trade, relied on these studies for a legal framework.[12]

GA Rules from Roman Law to the *Consolat de Mar*: premises for the Evolution of a GA Genoese Policy

Roman law remained an essential model for Mediterranean states, including Genoa. The legal tradition belonging to the *Corpus Iuris Civilis* and the so-called *Basilica*, acted as a unifying factor for the various regulations that developed in the Mediterranean area during the medieval period.[13] The contemporary concept of GA (referred to by the term *jactum* in the *Digest*[14]) is based on the idea that voluntary damage to property effected to ensure the safety of the ship and its cargo must be borne by all beneficiaries.[15] In particular, the legal expedient of considering all goods on board as common property, despite belonging to different owners, was widespread. This agreement, called *agermanar* in the *Consolat* and *germinamento* in the Italian legal texts, was a reciprocal obligation concerning also unintentional damage.[16] Only after the event itself, and upon safe arrival at the first port, did the apportionment of damage suffered by one or the other consignment of goods, or by the ship itself, take place among the merchants and the ship-owners, in proportion to the economic interests of each party involved in the shipment.[17]

[12] G. Felloni, 'Una fonte inesplorata per la storia dell'economia marittima in età moderna: i calcoli di avaria', *Wirtschaftskräfte in der europäischen Expansion*, 2 (1978): 37–57.

[13] On the adoption of Rhodian law into Roman law see G. Tedeschi, *Il diritto marittimo dei romani comparato al diritto italiano* (Montefiascone: Silvio Pellico, 1899); G. A. Palazzo, *La lex Rhodia de jactu nel diritto romano* (Parma 1919). On these issues see the contribution of Daphne Penna in this volume.

[14] An anthology of 50 books belonging to the *Corpus Juris Iustinianeum*.

[15] K. S. Selmer, *The survival of General Average: a necessity or an anachronism?* (Oslo 1958), 42.

[16] See Andrea Addobbati's contribution in this volume.

[17] S. Corrieri, *Il consolato del mare. La tradizione giuridico-marittima del Mediterraneo attraverso un'edizione italiana del 1584 del testo originale catalano del 1484* (Rome 2005), 267.

As for the *Digest*, what we would define as a GA act is presented in book XIV.2, significantly titled *De Lege Rhodia de Jactu*. The main legal figure was that of the *Magister*, the master and, often, also the owner of the ship. The extraordinary expenses and damages suffered in the interest of only one of the parties involved constituted what we would now call a Particular Average (PA): a type of damage that did not lead to apportionment. A reconfirmation of these principles is found in the *Basilica*, a corpus of law aimed at reviewing the Justinian compilation, whose redaction started under the authority of the Byzantine Emperor Basil the Macedonian and it was issued under his son Leo VI the Wise.[18]

Finally, a further novelty was the *Nòmos Rhodìon Nautikòs*, usually referred to as the 'pseudo-Rhodian law' to distinguish it from the original *De Lege Rhodia de Jactu*, inserted in the *Corpus Iuris*. Maritime matters are found in Book 53 of the *Nòmos* and refer directly, in theory, to the maritime custom of Rhodes as reported in *Corpus*.[19] According to some authors, this work is a private collection of maritime principles applied in the eastern Mediterranean in the eighth century.[20] One of the main divergences of this legislation with respect to the *Corpus* was the need, before proceeding to the act of voluntary damage, for an agreement among the majority of the merchants. This new collection of laws was used until the twelfth century in Adriatic cities, especially those most involved in commercial traffic with the Byzantine empire, and was partially integrated into the legal systems of Trani, Venice and Ancona.[21] Two legal traditions developed, one in the Eastern Mediterranean, based

[18] B. H. Stolte, ''New *Praefatio*' to *Basilica* Online. Justinian's *Corpus iuris* in the Byzantine World', in W. Brandes ed., *Fontes Minores XIII* (Berlin/Boston 2021), 239–264. See also the bibliography of Th. E. van Bochove available online at https://referenceworks.brillonline.com/browse/basilica-online (last accessed 22 December 2021).

[19] The recall to the Rhodian law was just a way to give it a pretended authority and a legislative validity, Bogojevic-Gluscevic, 'The Law and Practice of Average': 28; Ashburner, *The Rhodian Sea Law*. On the "pseudo-Rhodian law" see also M. Pal ed., *Plenitudo legis, amor veritatis* (Rome 2002), 134–135; Lefebvre d'Ovidio, 'La contribuzione alle avarie comuni', 62–70.

[20] On this see the contribution of Daphne Penna in this volume.

[21] R. Di Tucci, 'Consuetudini marittime del Medio Evo italiano nella redazione del Libro del Consolato del Mare', in L. A. Senigallia ed., *Atti della mostra bibliografica e convegno internazionale di studi storici del Diritto marittimo medioevale* (Naples 1934), 129–138, 130–131. According to Lefebvre D'Ovidio, the statutes for these cities consisted simply of the ample exemptions to the customary law of the *Nòmos,* see Lefebvre D'Ovidio, 'La contribuzione alle avarie comuni', 70.

on the adoption of pseudo-Rhodian law rather than the one based on the *Corpus Iuris*, which maintained its influence in the western Mediterranean. However, there was no lack of mutual influence between the two legal traditions. The pseudo-Rhodian law, for example, was progressively recognized by the autochthonous practices of Pisa, Genoa and Amalfi, as well as in the *Usatges de la Ribera* in Barcelona, although these remained primarily influenced by the *Corpus Iuris*.[22]

According to Salvatore Corrieri, Genoese and Catalan maritime laws in the Mediterranean area between the thirteenth and fourteenth centuries contributed to the spreading of the Roman and Byzantine legal traditions. The Adriatic area, on the other hand, remained more tied to the Levant routes and to the direct Byzantine legislative influence.[23] Furthermore, while Roman law regarding the regulation of GA referred primarily to jettison, the need to safeguard the company with acceptable risk margins in an insecure environment such as sea transport led to experimentation with organizational forms and institutions that were progressively expanded upon becoming more inclusive.[24] In some commercial entrepôts, such as Barcelona with the *Consolat* or Genoa with the Civil Statutes, the concept of GA was expanded irregularly to include administrative costs and damages due to unforeseeable circumstances or *force majeure*.[25] There was no lack of attempts to standardize and rearrange the rules, such as with the *Costumbres de Valencia*.[26] In this collection, promulgated in 1250, jettison alone seemed to lead to a distribution of damages while, to underline the voluntary nature of the act, it was the merchants themselves who had to throw their goods overboard first. To protect ship-owners and masters who bore the risk

[22] Corrieri, *Il consolato del mare*: 24–25; see G. Benvenuti, *Le repubbliche marinare. Amalfi, Pisa, Genova e Venezia* (Rome 1989).

[23] Corrieri, *Il consolato del mare*, 14. The same unifying function between Nordic and Mediterranean law was performed by the *Ordonnance touchant la Marine* promulgated in France in 1681; see O. Chaline, *La mer et la France: Quand les Bourbons voulaient dominer les océans* (Paris 2016). The original text of the *Ordonnance* is available at https://gallica.bnf.fr/ark:/12148/bpt6k95955s (last accessed 1 December 2021).

[24] The *Tavole di Amalfi* and the *Constitutum Usus* of Pisa, for example, required each object jettisoned to be noted, and that the master make a formal declaration along with the sworn testimonies from the crew.

[25] Corrieri, *Il consolato del mare*, 266.

[26] D. S. H. Abulafia, *The Western Mediterranean Kingdoms: the Struggle for Dominion, 1200–1500* (London 1997).

of the sea voyage, the ship contributed with only half of its value to the compensation for damages.[27]

Nonetheless, it was the volume of the *Consolat de Mar* of Barcelona, derived from the judicial activity of the homonymous magistracy, that established itself as a point of reference for the *ius commune* in much of the Mediterranean basin. It remained an essential model even for Genoese jurists throughout the early modern period.[28] The reprints of the 1549 edition, published in 1564 and 1584, were the most widely diffused in Europe, and the Genoese jurist Giuseppe Maria Casaregi based his work on them.[29] Already in 1258, Barcelona had responded to the orders of Valencia with a new maritime code, and with the institution of a magistracy formed by local merchants for the resolution of disputes, the *Consolat de Mar*.[30] In 1394, it included 20 merchants who stood alongside the consuls, as well as two officers called 'defenders of merchandise'.[31] This magistracy established itself as an organ for the defence and support of international trade under the authority of the crown of Aragon.[32]

[27] *Costumbres de Valencia*, *lib*. IX, *rub*. XVII, par. VII; also in Pardessus, *Collection des lois maritimes*, V: 336.

[28] Although the oldest printed version dates to 1519 (*Capitulj et ordinatione di mare et di mercantie* (Rome: Antonio de Bladi 1519), the *editio princeps* is considered to be the second edition, edited by Giovanni Battista Pedrezzano, *Libro di consolato novamente stampato et ricorretto, nel quale sono scritti capitoli & statuti & buone ordinationi, che li antichi ordinarono per li casi di mercantia & di mare & mercanti & marinari, & patroni di nauilii* (Venice: Giovanni Padoanno 1539). A new edition was printed in 1549 making direct reference to the Catalan version, containing all of the original parts, including the chapters on the customs of Valencia and other sections that had initially been omitted. On this topic see C. De Deo, 'Il consolato del mare: storia di un successo editoriale', in L. Guatri, C. De Deo, and G. Guerzoni eds., *Il Consolato e il portolano del Mare* (Milan 2007), I–XLII, XXI–XXII.

[29] G. M. Casaregi, *Il Consolato del Mare*, (Lucca: Cappuri & Santini 1720).

[30] R. C. Cave and H. H. Coulson eds., *A Source Book for Medieval Economic History* (New York 1965), 160–168. Following the developments of maritime law and commerce, Peter IV granted additional legislative privileges in 1340; on this see Lefebvre d'Ovidio, 'La contribuzione alle avarie comuni', 104–105.

[31] See E. Maccioni, 'Il ruolo del Consolato del Mare di Barcellona nella guerra catalano-aragonese contro i giudici d'Arborea', in O. Schena and S. Tognetti eds., *Commercio, finanza e guerra nella Sardegna tardomedievale* (Rome 2017), 167–196.

[32] See E. Maccioni, *Il Consolato del Mare di Barcellona. Tribunale e corporazione di mercanti (1394–1462)* (Rome 2019). Another important role was assumed by the arbiters, who were called upon by various legal offices for commercial and maritime litigations,

The book of the *Consolat*, the product of its judicial activity drawn up at the end of the fifteenth century, did not therefore emerge into a regulatory vacuum.[33] However, while previous regulations had vaguely recalled customs deriving from Roman law, the *Consolat* positioned itself as an authority in its own right, offering a synthesis of the various models in force in the Western Mediterranean. According to Raffaele di Tucci, the various states of the Mediterranean, or at least those of its Western basin, found their juridical order partially reflected in the *Consolat* in a practical summary capable of resolving controversies.[34] For this reason, before proceeding to the presentation of the specific Genoese GA regulations it is useful to dwell on the 'general' framework offered by this compilation, starting with the diffusion and adoption of the different editions of the volume in Mediterranean ports.

Tracing the events relating to this text and analyzing the rules it contains allows us to unveil a circulation of principles that characterized the maritime regulations applied in the Mediterranean in a highly consistent way. It is significant, for example, that the *Consolat* was long considered an Italian work, and that at the beginning of the twentieth century the origin of its authorship was still a matter of investigation

especially in cases of possible 'international incidents'; on this see Maccioni, 'Il ruolo del Consolato del Mare di Barcellona', 167–196; and M. E. Soldani, *I mercanti catalani e la corona d'Aragona in Sardegna: profitti e potere negli anni della conquista* (Rome 2017).

[33] For example, the following collections had a direct influence on the Book's redaction: the *Customs of Tortosa* (1271), of *Valencia* (1272), the *Ordinances of Ribera of Barcelona* (1258), the *Curia Fumada* of Vic (1231), the *Consulate of Maiorca* (1336), the *Consulate of Barcelona* (1348): see Corrieri, *Il consolato del mare*, 43–45. On the influence of the *Consolat* for the redaction of the book, see *Llibre del Consolat de Mar*, G. Colón Domènech and A. García Sanz eds. (Barcelona 2001); A. Iglesia-Ferreiros, 'La formacion de los libros de consulado de mar', *Initium*, 2 (1997): 1–372.

[34] Di Tucci, 'Consuetudini marittime', 133.

and debate among legal historians.[35] Between the fifteenth and eighteenth centuries there were twenty-five editions of the *Consolat* in Italian, while only seven translations were published in Castilian, English, Dutch, French and German.[36] In most printed versions, moreover, a 'list' is attached showing the presumed date at which the rules contained in the book entered into force in the various Mediterranean ports, the so-called *chronica de les promulgacions*.[37] It is interesting to note that this list backdated the writing of the book to the period immediately following the *Basilica*, that is, to the dawn of the eleventh century. In this way, and by identifying Rome as the first place of its adoption in 1075, a direct continuity with Roman law gave strength and formal authority to the rules contained in the text. Even some well-known seventeenth and eighteenth-century jurists, such as Targa and Casaregi, presumably in good faith,

[35] For example in 1911, O. Sciolla ed., *Il Consolato del Mare* (Turin 1911) was published. The *Real Academias de Buenas Letras* of Barcelona, via Guillermo M. de Brocà, responded to this publication by accusing the editor of wanting "to fight, through a supremacy of editions, the Barcelona paternity to assign the Italian paternity to the consular collections [combattere, attraverso un primato di edizioni, la paternità barcellonese per assegnare alle raccolte consolari la paternità italiana]"; on this see O. Sciolla, 'Dell'edizione principe del Consolato del mare', in L. A. Senigallia ed., *Atti della mostra bibliografica e convegno internazionale di studi storici del Diritto marittimo medioevale* (Naples 1934), 329–334.

[36] Corrieri, *Il consolato del mare*: 1. Among the first printed editions we should remember that of Barcelona, dating to circa 1484. The second, revised by Francesch Celells, dates to 1494. The editions immediately following, all of which were printed in Barcelona, date to 1502 (by Johan Luschner), 1518 (by Johan Rosembach) and 1518 (by Carles Amoros). In note 28 I mention the events relative to the Italian *editio princeps*. The early editions, all printed in Venice with the exception of the Roman one from 1519, date to 1539, 1544, 1549, 1556, 1558, 1564, 1566, 1567, 1576 and 1584; on this see J. M. Edelstein, 'Some Early Editions of the "Consulate of the Sea"', *The Papers of the Bibliographical Society of America*, 51/2 (1957): 119–125, 120–122. The first French edition is that of François Mayssoni ed., *Le livre du Consolat* (Aix-en-Provence: Pierre Roux 1577). One of the most notable editions, for being faithful to the original text, is the Spanish edition with accompanying Catalan text, edited by Antonio de Capmany, *Codigo de las costumbres maritimas de Barcelona*, 2 vols. (Madrid: Don Antonio de Sancha 1791).

[37] The studies that cite this list, nonetheless, do not refer specifically to the editions that do or do not contain it, with the exception of the commented edition by Casaregi. On this topic see L. Tanzini, 'Le prime edizioni a stampa in italiano del Libro del Consolato del Mare', in R. Martorelli ed., *Itinerando. Senza confini dalla preistoria ad oggi. Studi in onore di Roberto Coroneo* (Perugia 2015), 965–978, 967; Corrieri, *Il consolato del mare*, 45–46.

reported this list, according to which, for example, the *Consolat* had been introduced in Genoa as early as 1186.[38]

The Catalan *editio princeps* dates to between 1482 and 1484.[39] According to Olivia Remie Constable, however, the regulations that made up the *Consolat* were not drawn up before the thirteenth or fourteenth century.[40] The Italian editions most cited by the Genoese magistrates and jurists between the sixteenth and seventeenth centuries were those of 1564 and 1584.[41] Casaregi used a reprint of the 1564 edition, for example. All of the editions in Italian, with the exception of the first Roman edition of 1519, were printed in Venice, one of the most important printing centres in Europe. Furthermore, the fact that the 1539 edition edited by Giovan Battista Pedrezzano was dedicated to Martino Zornoza, the imperial consul in Venice, and that it contained the *portolani* of areas of interest to the Republic, suggests that the *Consolat* was well known in Venice as a regulatory source, although its first mention in the Venetian judicial documentation found thus far dates back to 1705.[42]

The book consists of a section dedicated to the institution and jurisdiction of the Valencian *cónsules de mar*, followed by a corpus of widely accepted rules known as 'the good customs of the sea', and a large final section of regulatory clarifications made by the kings of Aragon or the

[38] G. M. Casaregi, *Il Consolato del Mare colla spiegazione di Giuseppe Maria Casaregi*, in his *Discursos Legales de Commercio*, 4 vols. (Venice: Balleoniana 1740), III: 59. See also V. Piergiovanni, 'La Spiegazione del Consolato del mare di Giuseppe Lorenzo Maria Casaregi', in Piergiovanni, *Norme, scienza e pratica giuridica*, II: 1257–1271.

[39] On the spreading of the various editions, see Tanzini, 'Le prime edizioni a stampa', 966.

[40] O. Remie Constable, 'The problem of jettison in Medieval Mediterranean maritime law', *Journal of Medieval History*, 20/3 (1994): 207–220, 215. On the dating of the *Consolat*, see also A. Garcia Sanz, 'El derecho maritimo preconsular', *Boletin de la Sociedad Castellonense de Cultura*, 36 (1960): 47–74. J. J. Chiner Gimeno, J. P. Galiana Cachón, 'Del «Consolat de mar» al «Libro llamado Consulado de mar»: aproximación histórica', Eidem, *Libro llamado Consulado de mar (Valencia, 1539)* (Valencia 2003): 7–42.

[41] Tanzini, 'Le prime edizioni a stampa', 975–976.

[42] Tanzini, 'Le prime edizioni a stampa', 974; M. Fusaro, 'Migrating Seamen, Migrating Laws? An Historiographical Genealogy of Seamen's Employment and States' Jurisdiction in the Early Modern Mediterranean', in S. Gialdroni et al. eds., *Migrating Words, Migrating Merchants, Migrating Law* (Leiden 2019), 54–83, 71–72. The 1584 reprint of the 1539 edition is analyzed and commented in Corrieri, *Il consolato del mare*. Regarding 1705, see Fusaro, infra.

Councillors of Barcelona.[43] The material collected were general rules of conduct that had legal force during navigation. According to Roman law, in fact, law and custom had equal regulatory force.[44] In maritime law, therefore, as in the rest of commercial law, the behaviours enunciated as 'good standards' were mandatory under those specific circumstances, in that particular environment, and in the context of specific activities as long as they met long-standing criteria of adequacy, equity and justice.[45]

The *Consolat* did not address technical issues, with the exception of a few exemplary cases such as, for example, the chapters on the correct stowage of goods or on the criteria to be followed during jettison: these are situations in which the safety of the shipment was at stake and to which one was to respond with the necessary precautions as dictated by custom.[46]

The chapters dealing with jettison took up the guidelines of Roman law as well as commonly accepted contemporary Mediterranean practices, such as, for example, the Genoese statutes of Pera, on which more will follow later.[47] These are chapters 93: *Del caso di getto* [Disposing of cargo overboard], 94: *Di robba gettata* [Cargo thrown overboard], 95: *In che modo si debba contare la robba gittata* [Procedure of evaluating the cargo thrown overboard], 96: *Come debba esser pagata robba gettata* [Procedure for reimbursment for cargo thrown overboard], 97: *Le cerimonia che si debba fare in caso di getto* [Formalities that must be observed in relation to throwing of cargo overboard], 281: *Di nave che getta* [Cargo tossed

[43] Tanzini, 'Le prime edizioni a stampa', 966.

[44] According to the pre-classical concept, *populus* is the holder of all normative power, from which derives also the Emperor's. 'Accepted custom' therefore has the same value as the written source, as both are substantially expressions of the same holder of legislative power. See F. Gallo, *Interpretazione e formazione consuetudinaria del diritto: lezioni di diritto romano* (Turin 1993), 55–56.

[45] Corrieri, *Il consolato del mare*, 23.

[46] Corrieri, *Il consolato del mare*, 195–196.

[47] The chapter on jettison in the *Consolat* reflects the strong influence of the *Corpus Iuris*. The institution of the *germinamento* for example, a term of uncertain origin and analyzed by Andrea Addobbati in his contribution to this volume, is primarily impacted by the influence of the post-Rhodian law but is configured as a precise contractual obligation; see Lefebvre d'Ovidio, 'La contribuzione alle avarie comuni', 113–115.

overboard] and 293: *Come debba pagar nolo in caso di getto* [Lading fees assessed for loss of cargo thrown overboard].[48]

Merchants' consent remained the essential requirement for the validity of a GA, given that they were the most exposed to the losses that this entails. The significance of this consent contradicts and voids what was explicitly stated in chapter 250: *Di accordo fatto in golfo o in mare di libera* [Agreements concluded in a bay or on the open sea], which established the absolute nullity of agreements concluded in situations of actual and present danger.[49] All liability relating to the prediction and preventive assessment of the danger fell upon the *Dominus/Magister*, to eliminate or at least reduce any likely harmful effects. In the event of jettison, the merchant's consent was necessary, but the possibility of proceeding without it was contemplated in the event of imminent shipwreck.[50] Without agreement, each batch of goods bore the damage individually. The individual merchant was free not to join, and consequently to run the risk of damage without the possibility of repartition.[51] In the case of the merchants' absence, the master needed the consent of the officers and the boatswain (*nochier*).[52]

A fundamental role in the whole process was played out in the ceremony described in Ch. 97. This 'ceremony' started from the *Dominus*, who had to correctly evaluate the current situation and report it to the

[48] I follow here the numbering of the chapters and the text from the edition with commentary by Casaregi, who relies on the 1564 Italian edition that was probably in use in Genoa (Casaregi, *Il Consolato del Mare*). The English titles are from the translation made by S. J. Stanley ed., *Consulate of the Sea and related documents*, available on the Library of Iberian resources online, available at: https://libro.uca.edu/consulate/consulate.htm (last accessed 1 July 2021). For the Catalan edition, see E. Moliné y Brasés ed., *Les costums marítimes de Barcelona universalment conegudes per Llibre del Consolat de mar* (Alicante 2001 [1914]) available at: http://www.cervantesvirtual.com/obra-visor/les-costums-maritimes-de-barcelona-universalment-conegudes-per-llibre-del-consolat-de-mar--0/html/ (last accessed 1 December 2021).

[49] Casaregi, *Il consolato del mare*, 278–280.

[50] Casaregi, *Il consolato del mare*, 86–87, 352–358.

[51] Casaregi, *Il consolato del mare*, 90–92. In the Civil Statutes of Genoa as well, the consent of the merchants in case of their absence, could be substituted by an agreement between the master and his officers, divided among 'bow officers' and 'aft officers'.

[52] In Italy, the *nochier* was in charge of the crew during navigation, see the comparative role table at: https://humanities.exeter.ac.uk/history/research/centres/maritime/research/modernity/roles/ (last accessed 1 December 2021).

merchants with a speech, partially transcribed in the *Consolat* itself, in which he suggested proceeding with the jettison as a means of saving the venture.[53] Once the merchants, also representing others if necessary, had expressed their consent, the *Dominus* could start the operation by letting one of the merchants initiate the jettison 'symbolically'.[54] The agreement had to be formalized in a deed by the *scrivano* on board; if the latter was unable to draw up the document at that very moment, the crew's testimonies would suffice. In the event of the merchants' absence, the master could act in their stead as if he were the owner of the goods himself, with the same type of legal fiction observed in Roman law. In any case, he had to seek the consent of the crew, and present their testimonies once landed. The master therefore executed the jettison aided by the boatswain and the *pennese*, keeping in mind that he had to achieve the maximum benefit with the minimum sacrifice.[55] It was considered wise, however, not to be too scrupulous in sacrificing the goods, as '[…] it is better to jettison a quantity of goods than losing the people, the ship and all the stuff […]'.[56] The extension of the GA concept is formulated in Ch. 110: *Come si paghino spese straordinarie* [Apportionment of salvage expenses]. This chapter, in just a few lines, moves beyond the traditional combination of 'average=damage' to formally include any extraordinary and voluntary expenses necessary for the completion of the trip. Another example of the extension of the concept of GA concerned the small boat used for disembarkation and boarding operations, usually tied to the ship's aft and used in the absence of an adequate pier. In case of the risk of this small boat sinking, if the merchants required its abandonment for the sake of the journey, its loss was to be shared along with that of the cargo.[57]

The contribution for the damages caused by a GA act only protected legitimate situations. For this reason, goods that were not declared or that

[53] Regarding this ceremony and the reception by the *Consolat*, see also the contribution to this volume by Andrea Addobbati.

[54] This custom was lost in the following centuries; see Casaregi, *Il Consolato del Mare*, 87.

[55] The *pennese* focused on the correct storage of the ship's load. See: https://humanities.exeter.ac.uk/history/research/centres/maritime/resources/sailingintomodernity/roles/ (last accessed 1 December 2021).

[56] "[…] vale più gettar una quantità di robba che se perdessino le persone, la nave et tutta la robba […]", in Casaregi, *Il Consolato del Mare*, 91.

[57] Casaregi, *Il consolato del mare*, 100.

were stowed incorrectly were not included, as stated in Ch. 184: *Robba messa in fraude debba esser di essa in caso di getto* [Merchandise loaded aboard secretly and what should be done with it if necessity requires that it should be thrown overboard]; Ch. 113: *Si robba non manifestata* [Undeclared personal possessions and effects] and Ch. 132: *Di marcare robba nella nave* [Labelling of cargo aboard the vessel]. The ship, freight and cargo all contributed to the repartition of damages. Goods belonging to the crew did not contribute, as long as their value was less than half the salary of a seamen or officer. In the case of what was referred to as a 'flat' (*piano*) jettison, in which the quantity of goods thrown overboard was less than half of the total load, the ship contributed half its value. In the event of an irregular jettison, also defined as 'almost similar to shipwreck', which occurs when there is no time to observe the necessary formalities and more than half of the cargo is involved, the ship contributed two thirds of its value and the procedure was evaluated as explained in Ch. 281.[58] The freights were to be calculated in their entirety if collected on all the goods, also taking into consideration how much was paid for the lost or damaged cargo, and deducting what was necessary for the crew's travel expenses and wages. Freights did not contribute, however, if they were paid only for the goods saved. Following the judges' approval, the procedure continued with the liquidation phase.

Unlike the Venetian and Ancona statutes, the assessment of damages and the liquidation was not clearly regulated in the *Consolat*. It also did not concern itself with the reconstruction of the facts and events but, rather, focused only on the criteria for attributing the expense incurred, thus favouring the master/owner of the ship, whose actions were not called into question. If possible, the calculation and liquidation usually took place in the port of origin of the cargo. The *Consolat* does not explicitly refer to the liquidation process. Corrieri hypothesizes that the *Dominus* himself took on the role of liquidator, drawing up a list with the value of the goods involved according to an 'archaic and simple' procedure.[59] The surviving goods contributed according to the purchase value if the damage occurred in the first half of the trip and, if the damage occurred in the second half of the trip, according to the sale value in the

58 Corrieri, *Il consolato del mare*, 295–296.

59 Corrieri, *Il consolato del mare*, 300–301.

destination port.[60] The *Dominus* could requisition part of the goods or freight pending the payment of the merchants: it can be thus deduced that he assumed a pre-eminent role.[61] In fact, despite all the fairness and trust rhetoric, the master could always be suspected of acting in his own interest, as he had no real counterpart apart from the crew who, however, were still dependent upon him. For these reasons, one could appeal to the judgement of arbiters, chosen on the basis of being '[…] two good seafarers […]', as mediators between the parties.[62]

Perhaps the initial weakness of the local regulatory and customary tradition facilitated the Barcelona legislators in drafting the *Consolat*, a collection that came from the elaboration of different sources including, for example, some collections of Genoese rules such as the statutes of Pera and Gazaria.[63] The Genoese and Catalan systems agreed on the responsibility of the *Dominus* and on the criteria for allocating risk, as well as on the economic tools necessary for the construction of the ship.[64] As regards the institution of GA and jettison, the common reference was to the Pseudo-Rhodian law, so that the differences between Genoese maritime law and that of the *Consolat* were limited to secondary aspects. In Catalonia, in fact, a substantial land feudal system existed for a longer period and the need for written and shared maritime customs arose later than in Genoa, which was already master of a land and maritime domain from the late medieval period that extended from the Black Sea to North Africa.[65]

[60] Casaregi, *Il Consolato del Mare*, 88–89.

[61] Casaregi, *Il Consolato del Mare*, 87–88.

[62] Corrieri, *Il consolato del mare*, 300–301.

[63] Di Tucci, 'Consuetudini marittime', 134–136.

[64] Corrieri, *Il consolato del mare*, 36.

[65] See V. Polonio, 'Dalla marginalità alla potenza sul mare: un lento itinerario tra V e XIII secolo', in G. Assereto and M. Doria eds., *Storia della Liguria* (Bari 2007), 26–38. The Castille-Genoa axis, moreover, remained a determining factor in the economic development of Catalonia well into the sixteenth century, when relations between these two regions were further fostered by the alliance with Imperial Spain; A. Pacini, *Desde Rosas a Gaeta: La costruzione della rotta spagnola nel Mediterraneo occidentale nel secolo XVI* (Milan 2013); P. Vilar, *La Catalogne dans l'Espagne moderne*, 2 vols. (Paris 1962).

The Genoese Statute as a Source for the Study of Maritime Law

The overseas territorial expansion of the Republic of Genoa and the increase of its maritime sector in the late medieval period enlivened trade and posed the task of setting rules for the protection of distant territories and routes. The Republic sent copies of its statutes to the territories under its control, for ordinary administration, and in response to these developments the statutes of Pera were drafted.[66] The sending of the statutes safeguarded the *statum publicum* of these lands, and stated the peculiarities of these communities very distant from Genoa. The statute was the formal justification of the local territory's own order, and allowed for the preservation of a privileged and direct relationship with the motherland.[67] It is therefore significant that chapters concerning GA also appear in the statutory regulations copied from the Genoese originals and sent to the distant settlement of Pera on the Black Sea in 1316. This is the oldest known text on this subject regarding the Genoese Republic.[68]

These statutes contain rules on the most varied areas, including maritime trade, which occupies the entire fifth book. It is worth noting how, due to their formulation, these rules probably date back to the period preceding the abolition of the position of *Podestà* in Genoa in 1265.[69]

In the statutes of Pera, there is a chapter that prohibits loading goods onto the upper deck of the ship and another one that formulates the obligation to proceed with the *iactu* [jettison] of goods only in case of

[66] These territories were considered part of the Republic rather than 'colonies', a term that never appears in the sources, and which implies an administrative distance which does not seem to have been taken into consideration by the legislators. See C. Taviani, 'The Genoese Casa di San Giorgio as a micro-economic and territorial nodal system', in W. Blockmans, M. Krom, J. Wubs-Mrozewicz eds., *The Routledge Handbook of Maritime Trade around Europe 1300–1600: Commercial Networks and Urban Autonomy* (London–New York 2017), 177–191, 185.

[67] See V. Piergiovanni, 'Lo statuto: lo specchio normativo delle identità cittadine', in Piergiovanni, *Norme, scienza e pratica giuridica*, I: 317–328, 327.

[68] See V. Piergiovanni, *Gli statuti civili e criminali di Genova nel Medioevo. La tradizione manoscritta e le edizioni* (Genoa 1980); V. Piergiovanni, *Lezioni di storia giuridica genovese. Il Medioevo* (Genoa 1983).

[69] Raffaele Di Tucci also hypothesized a reciprocal influence compared to the *Constitutum Usus* di Pisa, whose earliest origins date to 1212; see Di Tucci, 'Consuetudini marittime', 134.

danger and with the approval of the merchants on board: Ch. CCXV: *De Rebus Positis in Navi Super Cohpertam Emendandis* [On how to handle cargo stored on the deck][70]; Ch. CCXXXI: *De iactu emendando facto de voluntate maioris partis mercatorum* [On the jettison made following the will of merchant's majority]. According to Pardessus, these chapters were influenced by the *Roles d'Oleron*, a well-known compilation of maritime law written in France in the twelfth century.[71] The statutes of Pera generically regulated jettison, GA (the term *avariam* appears in the body of the chapter as a synonym of generic damage) and any additional expenditure with the aim to share the risk. Here can be detected an influence of both traditions related to Roman law, the *Digest* and the Pseudo-Rhodian law.

The statutes of Pera chapters concerning jettison and GA were copied and reformulated in the subsequent statutes of the Genoa *Officium Gazariae*, in both the 1403 and 1441 editions; namely in Ch. VIII: *De non carrigando in coperta, nisi ut supra* [On not loading cargo on deck, other than as above][72]; Ch. XCVIII: *De jactis et avariis factis de voluntate majoris partis mercatorum* [On the jettison and average made following the will of merchant's majority].[73] Despite a name referring to the lost colony of Gazaria in Crimea, the *Officium Gazariae* was a maritime court based in Genoa. It had jurisdiction on maritime legislation, with particular reference 'on the facts and businesses of navigation'.[74] Its statutes were drawn up occasionally, when there was a need to update the rules or to distribute new copies of the laws currently in force, so that their

[70] V. Promis, 'Statuti della Colonia Genovese di Pera', *Miscellanea di Storia Italiana*, XI (1870): 513–780, 752. The translation of chapters' titles is mine.

[71] The *Roles d'Oleron*, however, report more specific cases, such as the cutting of the mast, etc.; see Pardessus, *Collection des lois*, I: 328.

[72] Pardessus writes that the same section can be found in the statutes of Pera (14 October 1317), thus confirming the remote origin of this rule; see Pardessus, *Collection des lois*, IV: 463.

[73] The same identical chapter appears in the 1403 edition; see Pardessus, *Collection des lois*, IV, *Officium Gazarie* (1441), chap. XCVIII: 521.

[74] "Super factis et negotiis navigandi", in C. Desimoni ed., *Statuto dei Padri del Comune della repubblica genovese* (Genoa: Fratelli Pagano 1885), XLV; M. Calegari, 'Patroni di mare e magistrature marittime: i *Conservatores Navium*', *Miscellanea Storica Ligure,* II/1 (1970): 57–91, 60. The fourteenth century volume of the *Imposicio Officii Gazariae*, which consists of 11 treatises and 153 paragraphs, does not cite the section on jettison, which instead appears in the fifteenth century texts; see 'Imposicio Officii Gazariae', in *Monumenta Historiae Patriae*, *Leges Municipales*, 23 vols. (Turin: fratelli Bocca 1836–1901), I: 303–430.

formulation was stratified through different editions. The volumes aimed to provide a sort of operational manual but do not help to clarify the genesis of individual rules.[75] As can be seen, the title of the chapter on jettison is almost the same of that of the statutes of Pera, as is its content: however, the term *avariis* is added to the title as a synonym of 'damage', while in the text also appear the terms '*avarias*', '*expensas*' and '*jactum*'. In the few lines dedicated to this theme, there are brief references to the need for the consent of those on board, to the proportional division of damages, and to the possibility of including all the expenses incurred, which are to be assessed each time.[76]

The Gazaria judges, it should be noted, were not professionals but rather merchants and trade experts, so the court functioning responded to the market's need for speed and fairness, escaping the Republic usual bureaucratic and legal subtleties.[77] Genoese masters elected even the *Conservatori delle Navi*, another institution established in the fifteenth century to deal with shipping and port discipline.[78] The *Officium Gazariae* shared its tasks with the *Officium Maris* and, following the structural reforms promoted by Andrea Doria in 1528, both magistracies were absorbed into the *Conservatori delle Navi* which, from 1546, were known as *Conservatori del Mare*.[79] The *Conservatori* inherited the authority over GA from the *Officium Gazariae*. Their jurisdiction extended to all civil and criminal maritime matters and, according to the decree of 15 October 1490, the shipmasters present in Genoa, or their

[75] In fact, the new rules nullified the preceding ones, and for this there was no reason to keep the versions that were no longer in use. This may be a Genoese peculiarity compared to other mercantile centers of the time, for example Venice; see Pardessus, *Collection des lois*, IV: 425.

[76] Pardessus, *Collection des lois*, vol. IV, *Officium Gazarie* (1441), chap. XCVIII: 521; he further suggests a clear reference to the *Rolls d'Oleron*, see Pardessus, *Collection des lois*, I: 328.

[77] V. Piergiovanni, 'Celesterio di Negro', in Piergiovanni, *Norme, scienza e pratica giuridica*, I: 219–224, 222.

[78] Calegari, 'Patroni di mare', 57–91. This was a common practice in cities with a strong mercantile vocation, like Barcelona in this same period; see also M. E. Soldani, 'Arbitrati e processi consolari fra Barcellona e l'Oltremare nel tardo medioevo', in E. Maccioni and S. Tognetti eds., *Tribunali di mercanti e giustizia mercantile nel tardo medioevo* (Florence 2016), 83–105.

[79] Calegari, 'Patroni di mare', 62–63; Desimoni, *Statuto dei Padri del Comune*: XLV; L. Piccinno, *Economia marittima e operatività portuale, Genova, secc.XVII–XIX* (Genoa 2000), 75–76.

delegates, elected the members of this magistracy.[80] Following the reform law of 18 March 1602, originally for five years but made perpetual in March 1607, the appointment of the *Conservatori* passed to the *Serenissimi Collegi* who, in agreement with the *Minor Consiglio*, chose five nobles to fill these positions. The term *Collegi* encompasses members of the *Senato* and the *Camera* who, along with the *Doge*, held executive power. Furthermore, the *Collegi*, along with the *Maggior Consiglio* and the *Minor Consiglio*, also exercised legislative power.[81]

The Genoese rules on GA remained unchanged until the sixteenth century. This was a particularly troubled period in the history of the Republic, marked by a series of important political and administrative reforms, of which the best known were the 1528 *Reformationes novae* promoted by Andrea Doria, and the 1576 *Leges novae*.[82] The institutional solutions adopted following these events, and the alliance with the powerful Spanish empire, strongly characterized the Republic until the end of the eighteenth century. The alliance with Spain guaranteed international protection without creating excessive interference on the local political level. This alliance was the result of the intense commercial and financial relations between the two countries: in addition to being the financial centre of the Spanish empire, Genoa was a key territory for the Spanish dominions in Italy, pivotal for the supply of silver and troops to Flanders, and for the maritime trade of wool, wine and other goods with the eastern coasts of the Iberian Peninsula and the Balearic Islands.[83] Although it is therefore reasonable to assume the circulation and adoption of a text like the *Consolat* between the two allies, the presence of an anti-Spanish faction, the vagueness of some rules, and the conflicts of

[80] G. Forcheri, *Doge, governatori, procuratori, consigli e magistrati della repubblica di Genova* (Genoa 1968), 147–150. Biblioteca Universitaria di Genova (=BUG), 716.C.V.15, *Magistrati antichi e moderni, Consegli, Presidenze dal principio della repubblica*, manuscript from the eighteenth century, cc. 65v–66r.

[81] See Forcheri, *Doge, governatori, procuratori*.

[82] R. Savelli, *La repubblica oligarchica. Legislazione, istituzioni e ceti a Genova nel Cinquecento* (Milan 1981).

[83] M. Herrero Sánchez et al. eds., *Génova y la Monarquía Hispánica (1528–1613)* (Genoa 2011); see also C. Dauverd, *Imperial ambitions in the Early Modern Mediterranean. Genoese merchants and the Spanish crown* (New York 2015); G. Parker, *The army of Flanders and the Spanish road 1567–1659* (Cambridge 1972); W. Brulez, 'L'exportation des Pays-Bas vers l'Italie par voie de terre, au milieu du XVIe siècle', *Annales. Economies, sociétés, civilisations*, 3 (1959): 461–491.

jurisdiction in the stretch of sea belonging to the Republic, could all be factors that influenced the will to assert an independent Genoese jurisdiction.[84] As late as 1592, there are masters who arrive in Genoa and promise to pay for GA according to the 'customs of the sea'.[85] Towards the end of that decade, however, the promise to respect the Civil Statutes of Genoa became instead increasingly frequent. Another common formula was the promise to respect 'correctly the calculators' statutes and their function'.[86] The text cannot be easily interpreted: it could refer to the chapter on the calculators within the Civil Statutes or to specific statutes of this magistracy of which, up to now, all traces have been lost.

The long preparatory phase of the new Civil Statutes began in 1551 with the appointment of a first committee of 'experts' and ended only in December 1588 with the decree of promulgation and subsequent publication by the following June 1589.[87] These Statutes are an essential moment in the formation of the Genoese legal apparatus. Although the new corpus of laws of the Republic contained multiple references to the 1528 Dorian reforms, within the maritime and commercial sphere Genoa confirmed much older rules, dating back to the *Liber Gazariae*.[88] The compilers evidently opted for continuity in an area at the centre of the economic interests of the local ruling class whose representatives, nobles as well as businessmen and politicians, invested their capital in maritime trade and in associated activities. It should be noted that, despite Republic's geographical, political, and economic proximity to Spain, and the fact that probably, until recently, the *Consolat de Mar* had been informally integrated into the Genoese customs for the resolution of GA, we find

[84] According to Giulio Pace, the Genoese, dependent upon the king of Spain, lost juridical control over the Ligurian Sea; see G. Pace, *De dominio maris Hadriatici* (Lyon: Bartolomeus Vincenti 1619), 70–71, in Calafat, *Une mer jalousée*, 155.

[85] "[…] pagandomi […] l'avaria secondo il Costume del mare […]", in Archivio di Stato di Genova (=ASG), *Notai Giudiziari* (=NG) 630, 10/04/1592.

[86] "Juxta formam statuti de Calcolatoribus et eorum officio": see, for example, ASG, *NG* 636, 16/11/1599. The promise to respect the calculators' statutes, which can be found in ASG, *NG* 636, 07/01/1600, is cited also in Felloni, 'Una fonte inesplorata', 848.

[87] BUG, ms. C. III. 13, *Statutorum civilium Reipublicae Genuensis* (Genoa: Hieronymum Bartolum 1589). Biblioteca Civica Berio, F.Ant.Gen.C.110, *Degli Statuti civili della Serenissima Repubblica di Genova* (Genoa: Pavoni 1613). The draft text of these statutes can be found in ASG, *Manoscritti* 197.

[88] Savelli, 'Statuti e amministrazione', 362–363.

no mention of it within the Civil Statutes. According to the authoritative opinion of Casaregi, the *Consolat* had pre-eminence over Roman law, yet the Civil Statutes do not mention it, and in fact introduce some important innovations and clarifications at the institutional and procedural level that deviate from it.[89]

GA Rules in Genoa According to the Statutes: Jettison and Calculators

Genoese lawmakers tried to insert the GA procedure into a rigid institutional framework apparently autonomous from the *Consolat*. This involved several of the Republic's governmental bodies including a new office created ad hoc: the *calcolatori* (calculators). The new Statutes, as well as subsequent editions published without significant changes in the following centuries, devote ample space to the institution of GA with two chapters dedicated to it: vol. I, Ch. XI. *De calculatoribus et eorum officio* [On the calculators and their function]; vol. IV, Ch. XVI. *De jactu, et forma in eo tenenda* [On jettison and the procedure to be followed].[90] Apart from minor modifications, the Statutes remained largely unchanged until the end of the Republic. Although the topic, as observed in the *Consolat*, is vast, it is interesting to note that the legislators chose to focus only on two crucial aspects. One of these is jettison, a key element in the development of the GA concept itself. The other chapter, on the other hand, focuses on the calculators and their function. This is a novel and important element with respect to the Genoese and European legislation of the period.

Regarding jettison, the Genoese procedure recalled the practice laid out in the *Consolat*, while departing from it in some ways, also demanding

[89] Casaregi, *Discursos*, II, 2. The lack of clarity in the normative text on the hierarchy of the legal sources and the desire to emphasize the authority of the statutes is different, for example, from the clarity of the Venetian case described in 'Migrating Seamen': 54–83.

[90] As Rodolfo Savelli emphasizes, in Genoa the *Statuti* were printed and reprinted, while scarce attention seems to have been devoted to the laws. The final edition was published in 1787; see R. Savelli ed., *Repertorio degli statuti della Liguria (XII-XVIII secc.)* (Genoa 2003), 145, 150. Furthermore, a partial procedural continuity with the preceding period is discussed in E. Grendi, 'Genova alla metà del Cinquecento: una politica del grano?', *Quaderni storici*, 5/13 (1970): 106–160, 136. He found two GA calculations drafted in 1552 and 1558, in ASG, *Finanze, Atti*, 32.

a greater bureaucratic effort from the parties involved.[91] As in the *Consolat*, the Civil Statutes specified that the master evaluated the danger, which could be a storm or 'any other reason', and he proposed the jettison. The Statutes then went on to explain a rather complex procedure. The vote on the master's proposal was to be carried out between the crew officers and the merchants; only in the event of approval with a two-thirds majority could three consuls be appointed, two of which had to be chosen from the officers, and one from the merchants.[92] The master had to:

> [...] consult all officers of the vessel and merchants on it. If two thirds of them agree to make the jettison for the aforesaid salvation, in that case three consuls shall be elected, two of them from among the said officers and one from among the said merchants. [...]

It is not clear whether the criterion for establishing a two-thirds majority was based on an individual vote or on a vote by 'parties involved', where one part was represented by the master, one by the officers, and one by the merchants. If there were no merchants on board, however, the master was obliged to seek the consent of his crew. Those elected as consuls were called to hold a temporary position of great responsibility: they chose what to jettison and the common salvation depended on them. The master, therefore, proposed the solution to avoid the imminent danger, but it was not he who put it into practice. All losses were progressively recorded by the *scrivano* on board and the list was to be signed by the consuls.[93] Because of its complexity, it is legitimate to hypothesize that

[91] BUG, ms. C. III. 13, *Statutorum civilium*, *lib*. IV, chap. XVI. *De iactu, et forma in eo tenenda*, 154–157.

[92] "[...] facere consultam cum omnibus officialibus navigii et mercatoribus in eo existentibus, et si duae tertiae partes praedictorum concurrerint in faciendo iactu pro dicta salvatione, eligantur eo casu tres consules, quorum duo sint ex dictis officialibus et unus ex dictis mercatoribus [...]", in BUG, ms. C. III. 13, *Statutorum civilium*, *lib*. IV, chap. XVI, *De iactu, et forma in eo tenenda*, 154–155. In cases where there were no merchants on board, the *Statuti* called for the election of two *consoli* from among the "ufficiali di prua [bow officers]" and one from the "ufficiali di poppa [aft officers]".

[93] "[...] quicquid de ordine dictorum consulum iactum fuerit, scribi et annotari debeat per scribam navigii in suo libro in praesentia dictorum consulum cum eorum subscriptionibus, si scribere scirent [The scribe of the vessel must record in his book whatever was thrown overboard by order of the said consuls, at their presence and with their

this procedure was largely theoretical and aimed at ensuring the regularity of the process. A consultation certainly took place informally and this procedure was followed in the past, when merchants usually travelled alongside their goods. For example, Vilma Borghesi reports the election of the *consoli* in a jettison occurred in 1504.[94] However, taking into account that this was a response to immediate events, and that the speed of the measures adopted could make the difference between the safety or demise of the venture, all of these formalities were impossible to observe in daily practice.[95] Each jettison made according to this procedure was distributed proportionally: 'it must be divided by penny and by pound between the vessel, freight, goods and all other things on board at the time of the jettison'.[96]

The Statutes' chapter also indicates as contributing elements some types of goods, which seemed to be excluded in other ports such as Livorno: 'money, gold, silver, jewellery, male and female slaves and any other animal that was on the vessel'.[97] However, these assets could not in turn be jettisoned.[98]

signatures, if they know how to write]". See BUG, ms. C. III. 13. *Statutorum civilium*, *lib*. IV, chap. XVI. *De iactu, et forma in eo tenenda*, 155.

[94] This document is transcribed in V. Borghesi, *Il Mediterraneo tra due rivoluzioni nautiche (secoli XIV–XVII)* (Florence 1976), 74–77.

[95] Within the GA procedures consulted thus far, no mention has been found of a list drafted during a storm, nor of the election of the *consoli*, ASG, NG 629 (1590), 630 (1592), 634 (1598), 635 (1599), 636 (1600), 2084 (1639–1640). Based on the presence or absence of merchants on board, these types of expressions were used: "*fatto il debito consiglio* [with the crew and the merchants]" or "*d'accordo con li suoi ufficiali* [with the crew only]", see ASG, *NG* 2084, 18/04/1640; ASG, *Conservatori del Mare* (=CdM) 377, 28/02/1696.

[96] "[…] dividi debeat secundum aes et libram inter navigium, naula, merces et omnes alia res existentes in dicto navigio tempore iactus […]", in BUG, ms. C. III. 13, *Statutorum civilium*, *lib*. IV, chap. XVI. *De iactu, et forma in eo tenenda*, 155.

[97] "[…] compraehensis pecuniis, auro, argento, iocalibus, servis maribus et foeminus, quis et aliis animalibus existentibus in navigio de transitu", in BUG, ms. C. III. 13, *Statutorum civilium*, *lib*. IV, chap. XVI. *De iactu, et forma in eo tenenda*, 155. Although detailed regulatory sources are missing for Livorno, cases of exclusion of money and slaves from contributions have been found. These questions are presented in J. A. Dyble, *General Average in the Free Port of Livorno, 1600–1700*, Unpublished PhD thesis, University of Exeter and Università di Pisa, 2021.

[98] C. Targa, *Ponderationi sopra la contrattatione marittima* (Genoa: A.M. Scionico 1692), 324; this prohibition dates to the *Digest*; see also Constable, 'The problem of jettison', 211.

Although the Statutes do not specify it, the documentation examined shows that *Consolat* practice was usually followed for the calculation of the value of goods and freight. The Genoese jurist Casaregi reports this custom. Each piece of merchandise, both saved and jettisoned, was evaluated based on the moment in which the jettison took place, whether during the first or the second half of the journey.[99] The value was assessed on the basis of the price in the departure or the destination port. In case of doubt, as explained by both Targa and Casaregi, the value of the property at the port of departure was calculated, its value in the port of arrival was added, and the final sum was halved.[100] The freight contribution criterion is deductible from the documents examined. In theory, they only contributed if the damage had occurred during the second half of the trip, as only in this case were they 'earned':

> Since the freight rates for the overriding goods are not included in the present risk, because the accident happened in the port of loading, and so they are not earned for not having made not only half of the voyage, but [...] any part of it.[101]

Accidents had the same chance to happen in the first as well as in the second part of the voyage. As an example, freights contributed in 51% of calculations drafted between 1590 and 1616.[102] Finally, the Statutes specified that the ship contributed for the whole of its value.[103] This element would seem to favour merchants and their insurers: a higher contributing value would have allowed a reduced rate of the damages. However, writes

[99] Casaregi, *Il Consolato del Mare*, 88–89.

[100] Targa, *Ponderationi*, 323, Casaregi, *Discursos*, I: 164.

[101] Of the approximately 1200 cases between 1590 and 1705 that have thus far been analyzed, we often find the explanation of this principle. For example, in ASG, *CdM* 377, 20/08/1705: "Non ponendosi nel presente risico li noli delle soprascritte merci, perché il sinistro [...] è seguito nel caricatore, e così non per anche guadagnati per non aver fatto, non solo la metà del viaggio, ma [...] parte alcuna del medesimo". According to Targa, by contrast, freight makes up part of the calculation only when calculating the net value of the expense, as in *Consolat* chap. 96; See Targa, *Ponderationi*, 326. However, several cases show different procedures that deviate both from the Statutes and from the jurists' texts. I am currently studying the freight contribution criteria in a new research.

[102] Statistics based on sources in ASG, NG 629–640, 1643–1646, 1590–1616.

[103] BUG, ms. C. III. 13, *Statutorum civilium*, *lib.* IV, chap. XVI. *De iactu, et forma in eo tenenda*, 155.

Targa, the value of a ship consisted of both the body of the ship and its accessories: the latter counted for about half of the value of the vessel. Therefore, although the Statutes did not explicitly mention the *Consolat*, they referred to it and specifically so in Ch. 94 when they specify only 'ship' and not 'ship and accessories'. According to Targa, it would not be possible 'in one part of the world, with regard to maritime negotiations, to operate in one way and in another in a different way, for the common interest that so many different people can have in one instance'.[104] The juridical doctrine manages to collect and regulate the factor of diversity introduced by the Civil Statutes and inserting it into a Mediterranean, if not European, context.[105] However, the sources were explicitly against Targa's opinion. Calculations drawn up across all the seventeenth century explicitly record the values of the body as well as of each accessory of the ship, while those drawn up at the beginning of the eighteenth century record only the value of the body of the ship.[106] So far, the only calculation from the first half of the seventeenth century in which the calculators considered half of the ship's value, referred to a vessel bound for Majorca. It was only for this reason, according to the source, that half of its value was included in the GA.[107] According to Targa, the ship contributed two thirds of its value in the event of an 'irregular jettison', for example when, due to the necessity of prompt action, the necessary procedural formalities were not observed.[108] Even in this case, there are no calculations that confirm this part of the procedure.

The jettison chapter goes on to explain the conditions under which the journey should continue. After the event, in order to avoid fraud,

[104] "[…] non potendosi, in una parte del mondo, circa la contrattatione maritima operare in un modo e in altra in diverso, per l'interesse comune che tanta gente diversa puonno haver in un istesso fatto", in Targa, *Ponderationi*, 323–324.

[105] On this adaptability see V. Piergiovanni, 'Il valore del documento alle origini della scienza del diritto commerciale: Sigismondo Scaccia giudice a Genova nel XVII secolo', in *Ianuensis non nascitur, sed fit. Studi in onore di Dino Puncuh*, 3 vols. (Genoa, 2019), III: 1061–1068. In Venice, for example, in maritime matters preeminence was given to local statutes, on this Fusaro, 'Migrating seamen', 69.

[106] See, as an example, ASG, *NG* 2084, 20/03/1640, ASG, CdM, Atti Civili 124, 03/03/1699 and ASG, *CdM* 377, 27/08/1707.

[107] ASG, NG 1645, 18/12/1612: "La metà della pollacca, si li mette solo la metà conforme al Consolato perché la mercantia non veniva a consegnare in Genova ma in Maiorca, così a peritia del sindaco di Prestantissimi Conservatori di Mare […]".

[108] Targa, *Ponderationi*, 325.

an attempt should be made to 'freeze' the situation as far as possible until the final destination is reached, or in any case until the presentation of the request for the GA calculation. It was therefore forbidden for the master to load any goods other than the necessary supplies, the passengers baggages, or the '*merci sottili*', that is, those with high unit value and therefore for the most part excluded from a jettison.[109] Only if the jettison had occurred in the loading port would it then be possible to load as many goods on board as those previously jettisoned, regardless of their typology. In the event of a violation of this rule, or if the master had ordered a new load, and a new jettison should then occur, the latter's damages were the sole responsibility of the master.[110] In this case, the ship-owners paid the freight collected on the new cargo for one third to the insurers, and two thirds to the *Conservatori del Mare*.[111] It is significant that the section on insurance immediately follows that on the jettison, a sign of the correlation between the two institutions, and that in this section there is a definition of the term '*avaria*' [Average]. A peculiarity of Genoese GA law, starting from the 1589 Statutes, was the possibility of insuring cargo against the GA contributions:

> The insurers, if they have not made any legitimate agreements with the insured, are required to pay for the jettison proven in accordance with the Statutes. They are also required to pay for the Average, which is any damage that occurs as a result of an accident.[112]

[109] "[…] victualia pro usu et necessitate navigii, merce subtiles et capsias passageriorum […] [provisions for the needs of the ship, thin goods and passenger crates]", in BUG, ms. C. III. 13, *Statutorum civilium*, *lib.* IV, chap. XVI, *De iactu, et forma in eo tenenda*, 155. *Merci sottili*, were made up of finished products, usually woolen cloth and drapery. See A. Fiorentino, *Il commercio delle pelli lavorate nel Basso Medioevo. Risultati dall'Archivio Datini di Prato* (Florence 2015), 38.

[110] "[…] patronus […] teneatur ad satisfaciendum omne damnum in casu novi iactus […] [the master must pay for any damage in case of a new jettison]" BUG, ms. C. III. 13, *Statutorum civilium*, *lib.* IV, chap. XVI, *De iactu, et forma in eo tenenda*, 155.

[111] On the ties between these two institutions in Genoa, see the essay by L. Piccinno and A. Iodice, 'Managing Shipping Risk: General Average and Marine Insurance in Early Modern Genoa', in G. Rossi and P. Hellwege eds., *Maritime Risk Management: Essays on the history of Marine insurance, General Average and Sea Loan* (Berlin 2021), 83–109.

[112] "Assecuratores, si cum assecurato super infrascriptis nullum licitum pactum fecissent, teneantur de iactu secundum formam statutorum facto et probato, et etiam teneantur de avaria quae est omne damnum quod caso fortuito sequitur […]", in BUG, ms. C. III. 13, *Statutorum civilium*, *lib.* IV, chap. XVII, *De securitatibus*, 159.

Finally, the chapter on jettison ordered to the master to unload the remaining goods on board only in the agreed ports and by presenting the relevant bills of lading. All operations were to take place during the day, and the master had to request a certificate from the local customs authority: otherwise, he was required to pay the damages deriving from each jettison.[113] If, at the behest of the merchant who owned the goods or for other exceptional conditions, part of the goods were unloaded in a port other than the one envisaged, the 'consuls' elected during the jettison had to be present, in addition to the local Genoese consul or, in his absence, a local magistrate.[114] At the time of this unforeseen unloading, which took place before the calculation was done, the master was to demand the share of the contribution from the owners of the unloaded goods. The contribution rate was calculated based on the economic interests involved, by calculating them '*per soldo et per lira* [by penny and by pound]'.[115] However, since the calculation had not yet taken place and this instalment had not yet been officially established, the master would only make an estimate and, in case the contribution due from the previously unloaded goods resulted in an amount greater than foreseen, it was he who was obligated to pay the difference.[116] This rule was probably an additional incentive to carry out the calculation as soon as possible, to avoid both disputes with merchants and inaccuracies in the accounts.

The master had to ensure the drafting of a sea protest, a 'report', to register all of the lost or damaged goods in the first port reached after the jettison, with the help of the *scrivano* and the elected consuls. The *scriptura* [sea protest]—in the archival documents variously referred to as the '*consolato*', '*testimoniale*' and '*manifesto*'—was to be accompanied by the testimony of the officers, merchants and any passengers, under penalty

[113] BUG, ms. C. III. 13, *Statutorum civilium*, *lib.* IV, chap. XVI. *De iactu, et forma in eo tenenda*, 157.

[114] BUG, ms. C. III. 13, *Statutorum civilium*, *lib.* IV, chap. XVI. *De iactu, et forma in eo tenenda*, 157.

[115] This expression also appears in the statutes of Pera and Gazaria, just as it is possible to read in the *editio princeps* of the *Consolat*: "per sou et per liura et per besant", where this last term refers to the Byzantine coin; on this Corrieri, *Il consolato del mare*, 298.

[116] "[…] contributionem iuxta calculum fiendum cum damnis et interesse [contribution in accordance with the calculation, with damages and interest]", in BUG, ms. C. III. 13, *Statutorum civilium*, *lib.* IV, chap. XVI. *De iactu, et forma in eo tenenda*, 156.

of full responsibility of the master for any damage that had occurred.[117] This list was to be registered and approved by the Genoese consul or by the local magistrate, who had to provide an authentic, sealed copy to the master for the continuation of the journey on to the location where the final calculation would take place.

According to the Statutes, the vessel that had declared GA had the right of way over all other ships in the port, even those that had arrived before her. This is a relevant measure in a crowded seaport like Genoa in the seventeenth century.[118] The master and his *scrivano* had to go to the magistrate responsible for unloading the ships, or to an ordinary judge, and indicate the month, day and time of the jettison, providing also the list of damages. Although the Statutes did not require it, the vessel's tonnage was also frequently indicated in the first years following their promulgation. This custom almost completely disappears in the GA practice following a modification of the taxation system in 1638.[119] If officers or seamen were to break these rules, for example by unloading their belongings or other goods earlier than allowed, they would lose their jobs and their possessions on board.[120] The illegally unloaded cargo, on the other hand, could be confiscated by the *Padri del Comune*, the magistracy in charge of the management and maintenance of the port and piers,[121] or by the *Conservatori del Mare*: 'if goods unloaded against

[117] BUG, ms. C. III. 13, *Statutorum civilium*, *lib*. IV, chap. XVI, *De iactu, et forma in eo tenenda*, 156–157. According to Targa these three denominations have a precise logic, which is not always followed in practice: the *manifesto* refers to the master who 'manifests' the case; the *consolato* refers to the fact that the document was drafted in front of a consul; finally, the *testimoniale* refers to the presence of at least three witnesses; see Targa, *Ponderationi*, 309.

[118] G. Doria, 'La gestione del porto di Genova dal 1550 al 1797', G. Doria, P. Massa, V. Piergiovanni eds., *Il sistema portuale della repubblica di Genova. Profili organizzativi e politica gestionale (secc. XII-XVIII)* (Genoa 1988), 135–198, 152.

[119] See the contribution of Luisa Piccinno in this volume.

[120] "[…] amitta exonerata et privati remaneant officiis [be fired and relieved of duty]", in BUG, ms. C. III. 13, *Statutorum civilium, lib*. IV, chap. XVI. *De iactu, et forma in eo tenenda*, 157.

[121] See Forcheri, *Doge, governatori, procuratori*, 90.

these Statutes were found they would became the property of the *Padri del Comune* and of the *Conservatori del Mare* of the city of Genoa'.[122]

If the fraud was discovered thanks to an accuser, the latter was rewarded with a third of the assets and the promise that his name would be kept secret. The jettison chapter ends with a significant extension of jurisdiction: the aforementioned rules, in fact, apply not only to ship-owners and masters, but also to any other legal figure responsible for the ship, such as 'the prefect, the master or the person responsible for the vessel'.[123]

This legislation reveals an attempt to contain as much as possible the master's autonomy. On the one hand, in the event of an irregularity, he was directly financially responsible for any damage, while on the other hand he had great decision-making power together with his crew. In a period in which merchants travelled together with their goods with less and less frequency, he was an almost exclusive arbiter and narrator of any event that occurred during navigation. The complexity of the rules, though aimed at avoiding fraud and irregularities, also made it difficult to apply them effectively. Targa, who sat in the *Conservatori del Mare* office at the time of the approval of the master's sea protests in the mid-seventeenth century, confirms this[124]:

> […] when confronted with a great danger, precise respect of formal juridical procedures is not foremost in the mind, and in my sixty years of maritime legal practice of the great quantity of such proceedings that I have seen, I remember just four or five of these in which jettison happened with all the required formalities, and in each of these there was reason to question the premeditation of the act.[125]

[122] "Si bona fuerint reperta exonerata contra formam praesentis statuti sint effecta patrum communis et conservatorum maris civitatuis Genuae […]", in BUG, ms. C. III. 13, *Statutorum civilium, lib.* IV, chap. XVI. *De iactu, et forma in eo tenenda*, 157.

[123] "[…] prefectus, magister seu praepositus navigii", in BUG, ms. C. III. 13, *Statutorum civilium, lib.* IV, chap. XVI. *De iactu, et forma in eo tenenda*, 157.

[124] He participated in the Court's session as a *causidico*; a *causidico* acted in court representing the party, but he was not a lawyer.

[125] "[…] sopraggiungendo un grande pericolo, poco vengono a memoria li atti giuridici, et io in anni sessanta di pratiche maritime che n'havrò veduto gran quantità non mi ricordo haver veduto Consolati á pena quattro in cinque fatti per gettito notato giuridicamente alla forma prenarrata, et in ogn'un di questi vi è stato da criticare per esser parsi troppo premeditate", in Targa, *Ponderationi*, 253. Though his work was published

Targa believed that, when faced with a case that observed all the rules and complex theoretical indications envisaged, there was probably the desire of the masters or others to conceal far greater irregularities. Adaptation to an ever-changing reality therefore remained a necessary prerogative of maritime law. However extensive its provisions and instructions, laws and norms could never take into account every variable of a sea voyage. The appraisals, estimates, or the calculations of the contribution, in fact, leave space to strong arbitrary element even today. In Genoa, an important effort was made at the institutional level to limit this arbitrariness through the creation of the office of calculators, sanctioned in Book I of the Statutes.[126] According to the current state of research, this specific role seems to have been a local peculiarity. Genoese calculators were not experts appointed for one specific case and therefore theoretically susceptible to be rejected or contested by the parties, but rather institutional figures selected by the *Senato*.[127] Institutionalizing this figure was probably intended to save time and avoid possible litigation: if the *Conservatori* appointed experts from case to case, one of the merchants involved could complain and ask for a different person, precisely because it was a flexible procedure. On the other hand, setting up the calculators as a permanent office allowed Genoese maritime authorities to avoid the process of nomination and eventual acceptance, and to proceed directly to the drafting of the calculation. The magistracy was composed of three individuals who remained in charge for eighteen months, signed all of the calculations, and had their own specialized notary with a renewable five-year mandate. The calculators' mandate was renewable, but three years' pause was required between each mandate.[128]

in 1692, his name already figured among the *causidici* present during the drafting of the calculations in 1640, see ASG, *NG* 2084, 21/05/1640. On the life of Targa see M.G. Merello Altea, *Carlo Targa giurista genovese del secolo XVII*, vol. I: *La Vita e le opera* (Milan 1967).

[126] Moreover, we know that they dealt exclusively with GAs. See BUG, 716.C.V.15, *Magistrati antichi e moderni, Consegli, Presidenze dal principio della repubblica*, c.12r.

[127] Such a specialization can be observed in the notarial *filze* of Orazio Fazio, Gio. Agostino Gritta and Gio. Benedetto Gritta, significantly noted on the back as "Atti dei Calcolatori", see ASG, *NG* 629–637, 1643–1646, 2083–2088.

[128] There could also be some exceptions; an example was the extension of the mandate of Gio. Benedetto Gritta for two consecutive fifteen-years periods. See ASG, *Biblioteca Rari 8*, *Statutorum Civilium Serenissimae Reipublicae Ianuensis*, *lib.* I, chap. XI. *De calculatoribus, et eorum officio*, 1688, 29.

According to these laws, upon arrival in port the master was to ask the magistrate of the calculators to proceed with the account of the damage and of the individual contribution rate. Before carrying out this task, the calculators listened the interested parties (the master, the merchants, eventual insurers) and their witnesses, and then approved, or did not approve, the sea protest:

> Whenever the ship-owner, the captain, the prefect of the vessel, or anyone else who is in charge, will require the calculation of the jettison or average, the calculators' magistracy must listen to the parties and have the witnesses examined.[129]

At this stage, it was possible for the parties to make appeals regarding the jettison or the GA that had occurred. Following the approval of the master's report, the calculators had the power to order the unloading of the cargo and to require the presence of guards on the ship to prevent any fraud during this operation. In the documents, the presence of a '*giovane dei calcolatori*' [calculators' assistant] is often noted, who was to witness the unloading of the ships, and hand in a note listing the goods that he personally saw being unloaded.[130] A master guilty of irregularities during the unloading of goods on land would be fined one hundred *scudi* or the full value of the GA itself. The master was also to swear that he had not discharged anything in violation of the Statutes, and that he was ready to pay twelve *scudi* as a deposit. One third of the fine was to be collected by the calculators, and two thirds by the *Padri del Comune*.[131] In the presence of an accuser who reported the master's guilt to the magistrate, the third part of the fine was paid to him as a reward, as occurred in the anti-fraud procedure illustrated in the chapter on jettison.

The Civil Statutes also specified the remuneration due to these officers, which could receive between ten and one hundred and fifty *lire*

[129] "Quotiescumque patronus, magister seu prefectus navigii, aut alius ad quem de iure spectet, petierit fieri calculum de iactu seu avaria [...] Magistratus calculatorum intelligat partes, examinari faciat testes [...]", in BUG, ms. C. III. 13, *Statutorum civilium, lib*. I, chap. XI. *De calculatoribus, et eorum officio*, 19.

[130] See ASG, *NG* 2084, 1640.

[131] BUG, ms. C. III. 13, *Statutorum civilium, lib*. I, chap. XI. *De calculatoribus, et eorum officio*, 19.

per calculation. Half of the fee was subject to taxation by the *Conservatori del Mare*. If there were unexpected gains for whatever reason, these were handled by the *Padri del Comune* for the maintenance of the port.[132] Finally, the parties could agree to appoint 'external' calculators. For example, in 1640 the merchants Francesco Spinola, Nicolao Scaglie and Ambrogio Digherio agreed on the nomination of calculators in a GA in which they, along with numerous English and Genoese merchants, were involved. Thus, Carolus Vulstatuis, Michael Belhomus and Hieronimus Pallavicinus were appointed as calculators. It is interesting to note that Michele Bonomo and Geronimo Pallavicino were two official calculators whose names appear in almost all of the calculations from these years. The nomination of a third expert, probably Dutch, was thus in response to a need for oversight that was likely expressed by the English merchants involved. The calculation was to be approved also by the notary of the *Conservatori del Mare*, Filippo Camere.[133] However, if this agreement was not reached, the judges of the *Rota Civile* would assign the case to the ordinary calculators.[134] At the end of each calculation, a public reading followed in the presence of the interested parties, and the procedure then passed to the *Rota Civile*, which in turn ratified its validity by pronouncing a sentence:

> Let us say that the merchants and their insurers and others who have or may have an interest in this calculation must accept, discuss, and calculate. We release the master [...] from the said jettison followed because of the misfortune suffered. We reserve the actions to anyone against any person who sooner or later were interested in the present calculation. They compete, or can compete in ordinary judgement and so it is presented to

[132] "[...] et alia dimidia solvatur conservatoribus maris eroganda in usus dicti offici et pro eo, quod dictis usibus supererit, dando patribus communis in impensas portus et moduli erogando [and others are divided in half and given to the *Conservatori del Mare* for their office and use. And those that exceed the said use, shall be paid to the *Padri del Comune* for the expenses on the port and the docks]", in BUG, ms. C. III. 13, *Statutorum civilium, lib.* I, chap. XI, *De calculatoribus, et eorum officio*, 19–20.

[133] see ASG, *NG* 2084, 16/04/1640.

[134] More precisely, the foreign judges of the *Rota Civile* sent the case to the *Senato*, which was in charge of transferring back the responsibility to the calculators. See BUG, ms. C. III. 13, *Statutorum civilium*, *lib.* I, chap. XI, *De calculatoribus, et eorum officio*, 20.

> the magnificent Auditors of the *Rota Civile* of the Most Serene Republic to be accepted, reasoned, calculated and paid.[135]

This final passage was not specified in the Statutes. However, it emerged regularly in the daily practices. The *Rota Civile* made the calculation executive and it also had jurisdiction over appeals.

The Legislative and Procedural Changes of the XVII Century

During the seventeenth century, GA practice in Genoa experienced only slight changes. These were largely attributable to an increase in the authority, duties and involvement by the *Conservatori del Mare*, and to the competing dynamics in the evolution of the procedure between them and the calculators. Although the calculators appeared as an independent magistracy in the 1589 Civil Statutes, it seems that the *Conservatori* absorbed their office during the following century, thus they rapidly became the only ones to receive the masters who wanted to declare GA or PA. Furthermore, calculations underwent a progressive standardization.[136] The value of the ship and its equipment, for example, was increasingly provided by the *Conservatori del Mare*, so that the calculators would merely copy this estimate into the calculation.[137]

[135] The calculations regularly ended with formulae like "Diciamo doversi accettare, ragionare, e calcolare tra il mercanzie, o sia mercanti, e suoi assicuratori et altri che nel presente calcolo abbino o possano avere interesse, liberano come liberiamo il patrone [...] dal detto gettito seguito per colpa di detta fortuna patita, riservando siccome riserviamo le ragioni e azioni a cuiusvoglia contro qualunque persona che prima o poi del presente calcolo avesse o fossero obbligati tali quali li competano, o possono competere in giudizio ordinario e così in fero a magnifici Auditori della Rota Civile della serenissima repubblica doversi accettare, ragionare, calcolare e pagare", in ASG, *NG* 2084, 19/02/1640. On the role of the *Rota Civile* see V. Piergiovanni, 'Genoese Civil Rota and mercantile customary law', in his *Norme scienza e pratica giuridica*, II: 1211–1229.

[136] For an example of standardization in the sea protests, see the form mentioned in Targa, *Ponderationi*, 326–328.

[137] The person in charge of making this evaluation was the *Sindaco* of the *Conservatori*. This role, which lasted three years, included controls on the vessels departing from the port along with another regular member of the *Conservatori*, as well as the collection of a tax of 6 *soldi* for every 100 *salme* of loaded goods. See Forcheri, *Doge, governatori, procuratori*, 150.

From 1602, the authority to receive masters who presented a sea protest in the port of Genoa passed to the *Conservatori*, while previously it had been the responsibility of the calculators.[138] The procedure therefore arrived to the latter only for the redaction of the calculation of the damages and of the amount to be paid, following the *Conservatori*'s approval.[139] Probably based on their approval, the masters' sea protests were described as '*aperti e pubblicati*' or, in case of rejection, as '*segreti*'.[140] In order to guarantee the speedy execution of the proceedings/trials/cases, where any delay could cause extra costs and damages, this reform also restored to the *Conservatori* the criminal jurisdiction regarding the violation of navigation safety regulations. This authority had initially been under their jurisdiction but, in 1576, it had been entrusted to the *Rota Criminale*.[141] For example, the new powers of the *Conservatori* included the ability to force witnesses to 'tell the truth' and, failing this, to have them imprisoned and proceed against them with the same authority as the *Rota Criminale*. They could proceed as well against all those involved in the unloading and loading of ships in the port, such as 'the barge owners, camalli, and others'.[142] Perhaps part of these competencies had previously belonged to the calculators: a judgement of March 23, 1625, signed by the *Conservatore del Mare* Ottaviano Canevari, officially established that the calculators could not be judges in these cases, recalling that all judicial authority belonged to the *Conservatori*.[143] Unfortunately, at the present state of research, it is not possible to formulate further hypotheses regarding this administrative competition.

[138] In 1598, there was already an isolated case of a request approved by the chancery of the *Conservatori del Mare*. See ASG, *NG* 635, 31/12/1598. This practice, however, was only established during the early years of the following century.

[139] ASG, *Manoscritti Biblioteca* 9, *Legum 1590–1608*, 18/03/1602, 263.

[140] See, for example, ASG, *CdM Testimoniali all'estero segreti*, 277–301 (1635–1796).

[141] A further reform in 1605 authorized them to proceed at any time. See ASG, *Manoscritti* 41, *1576 in 1639, Leggi perpetue*, 27/05/1605, c. 104r.

[142] "I patroni delle chiatte, i camalli e altri", in ASG, *Manoscritti* 41, *1576 in 1639, Leggi perpetue*, 17 marzo 1607, c. 119r. At the beginning of the seventeenth century the crisis of the *Rota* led to the return to the use of earlier institutional practices such as the use of mercantile courts, made up of members of the citizen elite. This was also due to a deep-seated mistrust of the oligarchy regarding judicial experts; on this Savelli, *Politiche del diritto*, 1–3.

[143] This judgment appears in a *glossa* of the 1688 edition of the Civil Statutes. See ASG, *Biblioteca Rari* 8, *Statutorum Civilium Serenissimae Reipublicae Ianuensis*, 1688, 29.

The strengthening and centralization of the practice may have been the response to a specific petition from merchants and insurers who wanted greater institutional control against frauds. It should not be forgotten that the main merchants and businessmen of Genoa were often one and the same, or in any case were closely linked by business or family relationships, with the class of patricians running the state.[144] On 27 November 1654, the *Consigli*, the legislative body of the republic, issued a decree asking the *Conservatori* to take the necessary measures to stem the growing phenomenon of false declarations by the master.[145] These discussions resulted in a series of countermeasures, such as the possibility of proceeding *ex officio* against suspected offenders, and in an edict drawn up in 1698 (but approved and published in 1703), to prevent 'big averages founded on baseless calculations'.[146] By the eighteenth century, the calculators lost their own notary and there emerged the figure of the *Magistrato di Avaria*, directly dependent on the office of the *Conservatori*. Documents produced by this new magistracy appear to be complete for the period 1720–1817.[147] From the end of the seventeenth century, moreover, all of the Genoese documents on GA were preserved in the archival *filze* of the *Conservatori del Mare*.

GA proceedings, in Genoa as elsewhere, responded to the primary function of commercial justice: to render a judgement that ensured the sharing of costs and responsibilities quickly and to prevent imbalances, without 'wasting time' in the economic cycle of which maritime trade was a part. This is what guided Genoese businessmen and legislators in

[144] C. Bitossi, 'Il governo della Repubblica e della Casa di San Giorgio: i ceti dirigenti dopo la riforma costituzionale del 1576', in G. Felloni ed., *La Casa di San Giorgio: il potere del credito* (Genoa 2006), 91–107; G. Felloni, 'Il ceto dirigente a Genova nel secolo XVII: governanti o uomini d'affari?', *Atti della Società Ligure di Storia Patria*, 38 (1998): 1323–1340; C. Bitossi, *Il governo dei magnifici. Patriziato e politica a Genova fra Cinque e Seicento* (Genoa 1990).

[145] This edict is cited in a memorandum of a response of the *Conservatori* in ASG, *CdM* 444, 15/03/1655.

[146] "Grosse avarie fondate sopra calcoli insusistenti", in ASG, *CdM* 444, 15/09/1698. The path to publication of the edict seems to have begun on 20 November 1698 and ended on 26 September 1703. It is also interesting to note how the edict on sea loans, the financial tool discussed in this volume by Andrea Zanini, develops in parallel with the edict on GA, perhaps a sign of a link between these two institutions.

[147] ASG, *CdM* 451–453, *Sessioni diverse del magistrato d'avaria ed altro (1720–1817)*. A sampling of these folders shows that the acts are only the minutes from the meetings of this office. They only record date and names of the masters involved.

drafting the relevant rules, and it was precisely these needs that underpin such a continuous and detailed regulatory evolution, although in some cases it could lead to excessive bureaucratisation. The postponement of the appeal function to the *Rota Civile*, the presence of the merchants or of their delegates at the time of the approval of the sea protest and the calculation, as well as the speed of the procedure, were essential to the mercantile environment and to the customary practices that characterizes maritime law.[148] As written by Vito Piergiovanni:

> Since the commercial world moves in ever-increasing international spaces, it is not conceivable that the law becomes a barrier, and this is especially true in those cases – such as Genoa – that based their living and their fortunes on trade.[149]

These are likely some of the reasons why this institution, based in certain ways on experience, shared customs and 'trust' among the parties, has survived up to today, with the YAR regularly revised.[150]

[148] It is worth noting that the rules of Genoese GA regarding credit and insurance are also reported in the work of other jurists of the period as exemplary measures. For example, see Sigismondo Scaccia, *Tractatus de commerciis et cambio* (Venice: Sumptibus Bertanorum 1650), 351.

[149] "Se il mondo del commercio si muove su spazi internazionali sempre più ampi, non è pensabile che il diritto possa diventare un freno, almeno in realtà, come quella genovese, che sulla mercatura ha basato prima la propria sopravvivenza e poi le sue fortune", in Piergiovanni, 'Il diritto del commercio internazionale e la tradizione genovese', in Piergiovanni, *Norme, scienza e pratica giuridica*, I: 424.

[150] The latest edition are the YAR 2016, see: https://comitemaritime.org/work/york-antwerp-rules-yar/.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

The Economic Structure of Maritime Trade Calling at the Port of Genoa Through the Analysis of General Average Data (Sixteenth–Seventeenth Centuries)

Luisa Piccinno

This essay will discuss the preliminary results emerging from data extrapolated from General Average (GA) procedures in Genoa, between the last decade of the sixteenth century and the 1640s. The wealth of data provided by GA procedures compensates for some of the gaps in quantitative data which have held back research on the local maritime economy. Methodologically, this essay further develops the insights of Giuseppe

The research for this essay was conducted thanks to funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and Innovation Programme ERC Grant agreement No. 724544: *AveTransRisk—Average—Transaction Costs and Risk Management During the First Globalization (Sixteenth–Eighteenth Centuries)*. Translated by Monica Chojnacka.

L. Piccinno (✉)
University of Genoa, Genoa, Italy
e-mail: piccinno@economia.unige.it

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_11

Felloni's work on GA's potential for economic analysis.[1] The rich documentation produced during GA procedures, from the original report (*testimoniale*) to the final apportioning of costs (*calculus*), provides details for typology of vessel, provenance, route, flag and cargo. This data sheds new light on Mediterranean maritime trade during a fundamental period of structural change, characterized by the emergence of new protagonists and the creation of new equilibria.

Introduction

After the glorious era of the maritime republics, and the loss of its colonies in the Eastern Mediterranean and Black Sea, as is well known, Genoa regained a leading role in the European economic system around the mid-sixteenth century. This was thanks to the ability of its businessmen: merchants, bankers, ship-owners and insurers, who ushered in a historical moment that came to be known as the 'Century of the Genoese'.[2] During this period, while Genoese financial activity as moneylenders to the Spanish Crown seemed to prevail, and indeed acted as a driving force for the development of the city's economy, the port of Genoa was the nodal point of a vast network of traffic from the Mediterranean to the northern seas and the Atlantic Ocean. The Genoese mercantile and financial networks, controlled by powerful members of the city's patriciate, tended to intersect and often overlap. This led to a real Genoese 'diaspora', which assumed substantial proportions: according to data reported by Roberto Sabatino Lopez, probably overestimated but still significant, at the beginning of the sixteenth century there were about 10,000 Genoese in the Kingdom of Castile, 8,000 in the Kingdom of Naples, and almost 2,000 in Corsica.[3] As Edoardo Grendi stated, Genoa 'lives by virtue of the control of a space that transcends it. For Genoa, as for every port, these routes are, at least in part, the navigation routes, the space

[1] G. Felloni, 'Una fonte inesplorata per la storia dell'economia marittima in età moderna: i calcoli di avaria', in J. Schneider ed., *Wirtschaftkräfte und Wirtschaftswege. Festschrift für Hermann Kellenbenz*. II: *Wirtschaftkräfte in der europäischen Expansion* (Stuttgart 1978), 37–57; also in Id., *Scritti di Storia economica*, (Genoa 1998): 843–860.

[2] F. Braudel, *Civilization and Capitalism, Fifteenth-Eighteenth Centuries*, vol. III: *The Perspective of the World* (London 1984), 157–174.

[3] R. S. Lopez, 'The Cross Roads Within the Wall', in O. Handlin and J. Burchard eds., *The Historian and the City* (Cambridge, MA 1963), 27–43, 27.

is the Mediterranean, and the agents of control over this space are the Genoese'.[4]

Thanks to this phenomenon, the Genoese port during the early modern period became an important redistribution centre for a great variety of products from all over Europe. Already at the beginning of the sixteenth century, about 30% of the tonnage of Christian merchant ships active in the Mediterranean called at Genoa. By the middle of the century, the Republic's commercial fleet had a total capacity of about 15,000 tons (excluding small vessels dedicated to cabotage), and made up three quarters of Genoa's port traffic, while the presence of foreign vessels was much more sporadic.[5]

With the opening of new transoceanic routes and the arrival of new actors, the Genoese gradually abandoned the traffic related to spices and other products with high-added value. While maintaining their traditional interest in North African coral trade, they increasingly concentrated their resources on bulk goods, such as raw materials and foodstuffs, transport and marketing, both for themselves and on behalf of third parties.[6] The sixteenth century is in fact considered the 'century of grains', a period in which the transport by sea of large quantities of cereals increased to meet the needs of urban populations. Major Mediterranean ports became centres of supply and redistribution for these products, and the Genoese port was no exception.[7] Grains destined to feed the Republic's territories (which at the time numbered around 270,000–290,000 inhabitants), chronically lacking in this staple after the loss of the Black Sea markets following the Turkish conquest, came for the most part from Provence and from the Kingdom of Sicily and were transported mainly aboard

[4] E. Grendi, 'Traffico portuale, naviglio mercantile e consolati genovesi nel Cinquecento', *Rivista Storica Italiana*, 80 (1968): 593–638, 593.

[5] C. Costantini, *La Repubblica di Genova nell'età moderna* (Turin 1978), 164.

[6] L. Pezzolo, 'I traffici mediterranei, 1400–1700', *Le Note di Lavoro del Dipartimento di Scienze Economiche* (2009): 1–31, 8. https://www.unive.it/pag/fileadmin/user_upload/dipartimenti/economia/doc/Pubblicazioni_scientifiche/note_di_lavoro/NL_DSE_pezzolo_04_09.pdf (last accessed on 29 November 2021). On the Genoese presence in the Eastern Mediterranean and Black Sea: D. Jacoby, 'Western Commercial and Colonial Expansion in the Eastern Mediterranean and the Black Sea in the Late Middle Ages', in G. Ortalli and A. Sopracasa eds., *Rapporti mediterranei, pratiche documentarie, presenze veneziane. Le reti economiche e culturali (XIV–XVI secolo)* (Venice 2017), 3–49.

[7] On this see M. Aymard, *Venise, Raguse et le commerce du blé pendant la seconde moité du XVe siècle* (Paris 1995).

Ligurian vessels.[8] If we focus on grain trade between Sicily and Genoa in the 1530s, we find a timely confirmation of this phenomenon: in 1532, out of 54 ships loaded with grain that left the island for Genoa 33, or 61%, were Ligurians, 7 Spanish, 5 Sicilian and the few remaining French, Greek and Neapolitan. Similar data also emerges if we analyse the 49 carriers that five years later transported Sicilian products along the same route: 38 were Ligurian, equal to 77.5%. It is worth noting the appearance of Ragusan (present-day Dubrovnik) vessels, destined to increase their presence in the following decades.[9]

Only starting from the second half of the century, at least according to the rather outdated historiography, did the situation seem to change with a steady increase in foreign participation in maritime trade and the parallel decline of the Ligurian fleet.[10] A further change also coincided with the severe famine, and consequent food crisis, that hit the Mediterranean in 1590. This pushed the city authorities to grant the right of *portofranco*, or free port, to all vessels arriving in Ligurian ports with at least two thirds of their cargo consisting of cereals. This provision, initially valid for only one year, was subsequently renewed and modified in restrictive terms, limiting the concession to the port of Genoa alone, which effectively cut out all of the dominion's minor ports of call. At the same time, the men of government, aristocratic businessmen at the centre of a dense network of both commercial and financial relations with all the main European centres, were taking action to attract cargoes of wheat from northern countries: the objective was both to satisfy the needs of

[8] On the role of the Genoese port in the grain trade, and on the Republic's policies for supplying the city see P. Massa Piergiovanni, *Lineamenti di organizzazione economica in uno stato preindustriale. La Repubblica di Genova* (Genoa 1995), 71–93; L. Piccinno, 'A City with a Port or a Port City?', in W. Blockmans, M. Krom, J. Wubs-Mrozewicz eds., *The Routledge Handbook of Maritime Trade Around Europe 1300–1600: Commercial Networks and Urban Autonomy* (London–New York 2017), 159–176.

[9] O. Cancila, *Impresa redditi mercato nella Sicilia moderna* (Palermo 2003), 236; D. Gioffrè, 'Il commercio d'importazione genovese alla luce dei registri del dazio (1495–1537)', in *Studi in onore di Amintore Fanfani*, 6 vols. (Milan 1962), V:113–242, 194–195.

[10] More precisely, according to Claudio Costantini, in 1564 the total tonnage of foreign vessels arriving in the port of Genoa was more than that of the Ligurian fleet; see Costantini, *La Repubblica di Genova*, 165–168.

the local population and to generate a profitable re-export traffic to other ports in the Mediterranean.[11]

These factors drove a structural change in the port of Genoa's maritime traffic which is worthy of in-depth analysis. Historiography on this is rather scarce, as scholars have offered tentative estimates based on the available sources, while expressing the wish of finding new data. Edoardo Grendi, for example, repeatedly stressed in his work the lack of useful data necessary to accurately outline the trend of Genoese port traffic, and to shed light on phenomena understood up to now only in general terms. In his opinion, only an in-depth archival analysis aimed at reconstructing a sort of 'travel cards' [Images 1 and 2][12] of the ships entering the port of Genoa would have allowed him to find the missing answers and to correct any errors in the trends he suggested.[13]

New Data for Genoese Maritime Historiography: Average Procedures

This essay is a response to the historiographical challenge outlined above; the intent is to highlight symmetries and discrepancies with respect to what is known today about the port traffic in Genoa through the use of a source which up to now has been almost completely ignored: Averages (*avarie*). As clearly shown in this volume's contributions, within early modern European maritime trade, the term 'average' was used for a variety of risk management tools. However, within the Genoese environment only two typologies have emerged: General Average—voluntary loss to avoid a larger one—where the expenses were proportionally shared among all participants in the venture, and Particular Average, that is

[11] On the establishment of the Genoese *portofranco*, and its role as a political and economic tool, see T. A. Kirk, *Genoa and the Sea: Policy and Power in an Early Modern Maritime Republic, 1559–1684* (Baltimore 2005), 151–185.

[12] Centro di Studi e Documentazione di Storia Economica 'Archivio Doria' (=ADG), *G. Felloni*, box 1, fl. 630, n. 27.

[13] Grendi repeatedly underlined the need to integrate the data he analysed, which came primarily from the registers of the anchorage tax and the Health Ministry, with other sources; see especially E. Grendi, 'I nordici e il traffico del porto di Genova: 1590–1666', *Rivista Storica Italiana*, 83 (1971): 23–71, 23, 57–58.

CALCOLO DI AVARIA

COMUNE ( ) PER SCAMPARE A: PARTICOLARE (x) PER CAUSA DI: TEMPESTA ( ), INCENDIO ( ), PREDA ( ), ARRESTO ( ), REQUISIZIONE ( ), NAUFRAGIO ( ), INVESTIMENTO ( ), ROTTURA ( ).

Ordinato con decreto del
commesso a
sotto la direzione di
sottoscritto da il
presentato a il 23 aprile 1592
approv. e pubbl. da il 30 »

Tipo della nave: nave portata: lasti 200 circa Equipaggio:
Nome: La Carità
Capitano ~~patrone~~: Giovanni Hineman, di Amburgo
Descrizione generica del viaggio e del carico: da Amsterdam (?), con carico di grano per Genova

Porti di scalo	Ragione della sosta	Data di arrivo	Data di partenza
Amsterdam e Tessele		–	22 XI 1591

Origine dell'avaria: per timore di ( ), a causa di ( ) tempesta ( ); incendio ( ); attacco ( ) cattura ( ) da parte di pirati ( ), corsari ( ), nemici ( ); difesa della nave ( ); arresto ( ) navigazione convogliata ( ) per ordine di principe ( ); requisizione al servizio di principe ( ); naufragio ( ); investimento ( )
Natura dell'avaria: immissione d'acqua ( ); aggottamento ( ); getto ( ), danni ( ), perdita ( ) del carico; getto ( ), abbandono ( ), danni ( ), perdita ( ) del corpo, attrezzi, corredi ed armamenti della nave; rilascio forzato per riparazioni straordinarie ( ), per cattura ( ), per ordine di principe ( ); rilascio volontario per scampare a tempesta ( ), a pirati ( ), a corsari ( ), a nemici ( ); cambio marittimo ( );

Consolato Testimoniale fatto	Presentazione	Apert. e pubbl.	Approvazione
in Genova il 22 genn. 1592			
in il			
in il			
in il			

Valori espressi in Lire mon. gen. ~~di banco fuori banco corr. Pezzi da reali 8~~

MASSA PASSIVA (RISICO)	Val. contr.	Val. non contr.	Valore totale
1) CORPO, ATTR., CORR. ED ARMAM. DELLA NAVE	–		
In condizioni normali			
Nelle condizioni d'arrivo a Genova			
Apparati gettati o perduti prima dell'arrivo a Genova			
2) NOLI	–		
3) CARICO			
– grano caricato in Amsterdam per Genova per G. F. Castiglione: lasti 28	15.554 00 00		

Image 1 Giuseppe Felloni's 'travel card'

	Val. contrib.			Val. non contr.			Valore totale		
4) CORREDI E PROVVISTE DELL'EQUIPAGGIO									
5) TOTALE (1 + 2 + 3 + 4)									

MASSA ATTIVA (GETTITO DANNI E SPESE)	Importo			Periodo in giorni	Importo ad anno		
- danno su mine 17½ di carico:							
minor valore	304	14	05				
noli a ducati 33 il lasto	94	07	01				
avaria ordin. e pilotaggi a reali 5 il lasto	1	06	03				
- spese per [illegible] perizie ecc.	11	13	04				
TOTALE	412	01	01				

EQUIVALENZE METROLOGICHE ED OSSERVAZIONI

Lasto 1 = mine 25 ¼ mis. gen. (equivalenza effettiva)

Ducato 1 = Lire 5.07.10 ¼ mon. gen.

Nella premessa si fa riferimento ad altro calcolo fatto in Genova

Fonti: A.S.C.G., Mag. dell'Abbondanza, n° ______, doc. n° ______

A.S.G., Notai giudiziari, sala ______, scansia ______, n° gen. 630, n° part. ______

Notaio ______, pratica n° 27

A.S.G., Conservatori del Mare, n° ______, pratica n° ______

Redazione del ______ di ______

Istituto di storia economica dell'Università di Genova

Image 2 Giuseppe Felloni's 'travel card'

to say accidental damage whose costs was borne only by the individual affected.[14]

The legal procedure following an event that resulted in an Average claim provides plenty of evidence in this regard. The declarations presented by masters upon their arrival in port and witnesses' reports (*testimoniali* and *consolati*), the calculations determining the distribution of the damages and expenses incurred and additional supporting materials such as bills of lading, freight contracts and vessel appraisals, are all extremely rich in information relating to the voyage and the parties involved.

Pioneering work in this direction was started by Giuseppe Felloni in the 1970s. Through a detailed filing of a significant percentage of the Average procedures kept in the Genoa State Archives, he started a paper database made up of over 3000 'travel cards', corresponding to the Average reports presented to the Court of the *Conservatori del Mare* between 1589 and the fall of the Republic in 1797.[15] This valuable material, left for the use of scholars in the Department of Economics of the University of Genoa,[16] has been supplemented by further archival investigations aimed at enriching the information recorded, and to extend the analysis for some key periods for which Felloni only sampled the documentation. Thanks to this work, it has been possible to lay the foundations of a modern relational database, which also covers other European ports.[17]

[14] For details on the typology and procedure of Averages in Genoa, see the essay of Antonio Iodice in this volume.

[15] The early results of this are in Felloni, 'Una fonte inesplorata'. For an insight into his work on this subject see A. Iodice and L. Piccinno, 'Incertezza e rischio nel commercio marittimo. Le pratiche di avaria genovesi dagli studi di Giuseppe Felloni al database europeo AveTransRisk', forthcoming in the *Quaderni della Società Ligure di Storia Patria*. For an investigation of sources pertaining to Genoese maritime history, see G. Felloni, 'Organización portuaria, navegación y tráfico en Génova: un sondeo entre las fuentes de la Edad Moderna', in L. A. Ribot García and L. De Rosa eds., *Naves, puertos e itinerarios marítimos en la Época Moderna* (Madrid 2003), 237–267; L. Piccinno and A. Zanini, 'Genoa, Sixteenth Century-1797', *Revue de l'OFCE*, 44/140 (2015): 249–252.

[16] The more than 3,000 files left by Giuseppe Felloni are held today at ADG, *G. Felloni*, boxes 1–16.

[17] Database created through the project ERC Consolidator Grant 'Average-Transaction Costs and Risk Management during the First Globalization (Sixteenth-Eighteenth Centuries)'. https://humanities.exeter.ac.uk/history/research/centres/maritime/research/avetransrisk/. AveTransRisk online database. http://humanities-research.exeter.ac.uk/avetransrisk/ (last accessed on 29 November 2021).

Regarding the Genoese data, the sheer size of the extant material has forced us to operate a selection. Aiming at making the data comparable with that of other ports, especially Livorno, at this stage some sample years have been chosen and their full data has been uploaded into the database; by the end of the project, the plan is to cover the whole seventeenth century. The amount of information already available, although limited in chronological scope, allows us to carry out both macroeconomic analyses concerning the commercial traffic across the Mediterranean (goods, ships, ports of origin, nationality of the carriers), and microanalyses relevant to individual shipments (from the type of vessel to its value, the freight paid by the shippers, the duration of the voyage, the merchants involved, the causes that led to the Average declaration itself and the relative amount of damage suffered, to the profitability of the shipment).[18]

The first part of this essay is a macro-analysis aimed at establishing how the maritime trade arriving in Genoa changed over time. These changes will be examined side by side with the policies implemented by the city government in order to attract more traffic, and to prevail against a fierce competitor: the nearby port of Livorno, which was becoming a favourite destination for Northern European ships. I shall also discuss whether the analysis of the data shifts some historiographical trends such as the alleged crisis of the Genoese merchant marine following the entrance of Northern shipping in the Mediterranean; the rise and decline of Ragusa; the importance of the commercial relations between Genoa, Spain and France; the general crisis of the seventeenth century and, in particular, the effects of the Thirty Years' War.[19]

[18] With regard to the macro approach see L. Piccinno, 'Rischi di viaggio nel commercio marittimo del XVIII secolo', in M. Cini ed., *Traffici commerciali, sicurezza marittima, guerra di corsa. Il Mediterraneo e l'Ordine di Santo Stefano* (Pisa 2011), 159–179. For a micro analysis see the recent work of L. Piccinno and A. Iodice, 'Managing Shipping Risk: General Average and Marine Insurance in Early Modern Genoa', in P. Hellwege and G. Rossi eds., *Maritime Risk Management: Essays on the History of Marine Insurance, General Average and Sea Loan* (Berlin 2021), 83–109.

[19] G. Giacchero, *Origini e sviluppo del portofranco genovese* (Genoa 1972), 29, 33, 45, 62–69; Costantini, *La Repubblica di Genova*, 168–169. On the Northerners' arrival in the Mediterranean and its consequences see M. C. Engels, *Merchants, Interlopers, Seamen and Corsairs: The 'Flemish' Community in Livorno and Genoa (1615–1635)* (Verloren 1997); M. Fusaro, 'The Invasion of Northern Litigants: English and Dutch Seamen in Mediterranean Courts of Law', in M. Fusaro, B. Allaire, R. J. Blakemore, and T.

Where the data set available is sufficiently complete, it is also possible to reconstruct the characteristics of individual journeys in terms of journey length, ports of origin, vessel capacity and types of cargo. I therefore also focus on the period between 1589 and the 1641 and compare four particularly complete, and representative, data sets. The first two selected periods are the years 1589–1592 and 1597–1599, which contain 63 and 112 cases, respectively. This was a period dominated by the cereal crisis in the Mediterranean, leading to the first wave of Northern European ships loaded with grain to Genoa, a cycle which ended around 1597. The next series concerns the years 1600–1608; here a large amount of data is available, allowing for more detailed surveys (369 cases). It is therefore possible to compare the particular characteristics of the merchant marines of the Mediterranean and of the North of Europe, as well as between coastal and long-distance trade. This period is also particularly significant for Genoa, since it witnessed what Edoardo Grendi has defined as the 'great traffic', namely the second wave of Northerners arrivals, which took place between 1602 and 1622.[20] The last dataset under examination (151 cases) covers the years 1640–1641[21] and is therefore located squarely in the midst of the Thirty Years' War, at that time exacerbated by the entry into the conflict of France. This was a period of change for both the international political scenario and the main traffic routes. These in turn were affected by the precipitous rise of trade along the Atlantic routes. The Republic of Genoa, geographically close to France but under Spanish influence, was affected by the clashes between these two great powers and tried to maintain its neutrality. This was essential to ensure the flow of traffic to its port, especially against competition from nearby Livorno.

Finally, taking the period under consideration as a whole, it is essential to take into account two further elements influencing maritime traffic in the port of Genoa: population trends and *portofranco* (or free port) policies. Firstly, the demographic growth of the city was constant, despite some episodes of plague, and this created a parallel increase in food needs and therefore in imports, as the Ligurian territory was not very fertile.

Vanneste eds., *Law, Labour and Empire: Comparative Perspectives on Seafarers, c. 1500–1800* (Basingstoke 2015), 21–42.

[20] Grendi, 'I nordici', 31.

[21] Included in the analysis are declarations of Average submitted in 1640 but regarding vessels that left their departure port in the final months of 1639.

According to Felloni, the inhabitants of Genoa went from about 48,000 in 1581 to 62,000 in 1597, to 68,000 in 1608, and up to 75,000 thirty years later.[22] The average annual growth rate recorded for this period was about 1% (and 0.46% from 1597 to the end of the 1630s), therefore in line with the demographic model typical of *Ancien Régime* economies. However, this drove an overall population growth of 57% in the span of a little less than sixty years. For a region poor in resources, and therefore strongly dependent on imports, the control of the trade and redistribution of cereals, especially wheat, was particularly important.

This aspect is linked to the second element to be considered when analysing the trend and characteristics of Genoese maritime trade: the *portofranco* policies implemented by the government of the Republic, their effects on port traffic and, as a consequence, on the number of GA reports presented. Following the 1590 crisis, which was further aggravated by the breakdown of relations with Constantinople, and the consequent difficulty in finding resources on the Black Sea market, the right to *portofranco* was granted to all vessels arriving in Ligurian ports that carried a cargo of which at least two thirds consisted of grains. One year later, this provision was renewed but its validity was now limited to the port of Genoa.[23] This resulted in an initial, significant, wave of arrivals of vessels from Northern Europe loaded with cereals between the end of 1591 and the first months of the following year, followed by others attracted by the prospect of penetrating new markets: within a few months, almost 36,000 tons of grains, transported by about 200 ships, were unloaded.[24] The *portofranco* was maintained for the next several years, albeit with substantial changes: once the most acute phase of the food crisis passed, the minimum quantity of grain cargo necessary to be able to take advantage of this facility was reduced to 50% of the ship's capacity. At the same time, the exemption was only granted to carriers arriving from beyond the Strait of Gibraltar and with a minimum capacity of 300 mine, or 27 tons. According to Alfio Brusa, these restrictions were aimed at limiting the arrival of small vessels from Naples and

[22] G. Felloni, 'Per la storia della popolazione di Genova nei secoli XVI e XVII', in his *Scritti di Storia Economica*, 1177–1197, 1178–1179.

[23] Giacchero, *Origini e sviluppo*, 51–59; Kirk, *Genoa and the Sea*, 154–157.

[24] Grendi, 'I nordici', 24–25; Giacchero, *Origini e sviluppo*, 29, 33, 45, 62–69; Costantini, *La Repubblica di Genova*, 168–169.

Provence, which easily escaped both commodity and fiscal controls.[25] At the same time, these concessions represented a first response by the Genoese government to the policy initiated by Ferdinand I of Tuscany, aimed at making Livorno the main port of call and operational base for the merchant marines of Northern Europe.[26]

With the beginning of the seventeenth century, the Genoese *portofranco* system was consolidated and became a proper instrument of commercial policy, thus aimed not only at guaranteeing Genoa necessary supplies in times of crisis, but also at increasing commercial traffic.[27] Thus in 1609 the scope of the provision was considerably extended and the right of *portofranco* was granted to all vessels arriving in Genoa whatever their origin, with the exception of those arriving from the Genoese territories. This was just the first step, as in 1623 most of the restrictions still in force were abolished and it was declared a 'Portofranco libero, generale e generalissimo', which remained in operation until 1797.[28] This policy was successful, resulting in a general increase of traffic, especially in medium/long term. GA data clearly confirms the upward trend which had been hypothesized by Edoardo Grendi.[29]

[25] A. Brusa, 'Dal Portofranco della Repubblica genovese al deposito franco dei giorni nostri', in *Il Porto di Genova nella mostra di Palazzo San Giorgio* (Milan 1953), 134–135, 137–167.

[26] F. Braudel and R. Romano, *Navires et marchandises à l'entrée du port de Livourne (1547–1611)* (Paris 1951), 49–52; J. P. Filippini, *Il porto di Livorno e la Toscana (1676–1814)*, 2 vols. (Naples 1998), I:57–63; R. Ghezzi, *Livorno e il mondo islamico nel XVII secolo. Naviglio e commercio di importazione* (Bari 2007), 11–12; A. Iodice, 'Porto franco e capitani francesi a Genova (1590–1700)', in *Atti della Società Ligure di Storia Patria*.

[27] For a comparative view of the effects of the Livorno *portofranco* on GA see the essay of Jake Dyble in this volume.

[28] Giacchero, *Origini e sviluppo*, 119.

[29] Grendi, 'Traffico e navi', 358–359; Grendi, 'I nordici', 57–63.

The Structure of Shipping Traffic at the End of the Sixteenth Century, Between Old and New Actors

According to the preliminary estimates made by Felloni based on Average reports submitted between 1599 and 1601, about 60% of the vessels arriving in Genoa with a capacity exceeding 1500 *cantari* (76 tons)[30] presented a declaration of Average.[31] We find the same percentage for the period under consideration here, as well as for the subsequent decades, for which I have carried out sample surveys. Thus, the data and information that can be extrapolated from the study of Average practices allows for an investigation both in quantitative and qualitative terms.

A distinctive element of each vessel was the flag that indicated its nationality and, consequently, the authority to which it was subject. As is the case today, this identification carried with it different privileges, obligations and rights, as well as different levels of risk. For these reasons, masters not infrequently hoisted a flag different from that of their real one. This allowed them to avoid various kinds of prohibitions or the payment of taxes and duties that in some ports were imposed on foreign vessels, or to cross stretches of sea with a high risk of being attacked by privateers, or kidnapped by local authorities, with a greater level of protection. In this regard, the Average documents examined usually report the nationality of the *patrone* (*patronus*), or of the master who submitted the report. This was usually written in the document immediately after the *patrone* or master's name, while usually it does not contain information about the vessel's flag. From this element we can see how there was not necessarily an overlapping between these elements. It's worth also reminding how the ownership of vessels was often divided into shares (known as *carati*) belonging to different people who could be

[30] One Genoese *cantaro* was equivalent to 47.64 kg (G. Giacchero, *Il Seicento e le Compere di San Giorgio* [Genoa 1979], 695–696). For a broader view of the units of measures employed by *Ancien Régime* states, particularly the Republic of Genoa, and for conversion guides, see P. Rocca, *Pesi nazionali e stranieri, dichiarati e ridotti da P.F.R.* (Genoa: Stamperia Casamara, 1843); Id., *Pesi e misure di Genova e del Genovesato* (Genoa: Istituto Sordomuti, 1871); A. Martini, *Manuale di metrologia* (Turin: E. Loescher 1883), 223–226.

[31] Felloni, 'Una fonte inesplorata', 851.

of different nationalities.[32] For example, Genoese often held shares in Ragusan ships—a confirmation of their financial power—while the opposite was very rare. The *patrone* was the one in charge of running the ship and recruiting the crew; he entered into charter agreements and bore the responsibility for hull and cargo; generally he was also the owner or co-owner of the vessel.[33] Having said this, for the purposes of this essay, and similar to the approach used by other studies aimed at reconstructing the characteristics of maritime trade in this period, the *patrone*'s nationality is assumed to coincide with that of the vessel, a circumstance corresponding to reality in the majority of cases.[34]

Graphs 1 and 2 show a total of 175 cases analysed for the decade 1589–1599. About two thirds of these contain useful information about the masters' nationality, which is assumed to be that of the vessel. Although there is a hole in the documentation for the years 1593–1596, there is a sufficiently large number of cases to allow a reliable numerical reconstruction of the main nationalities involved in traffic to Genoa, and to analyse the changes caused by the 1590s crisis.

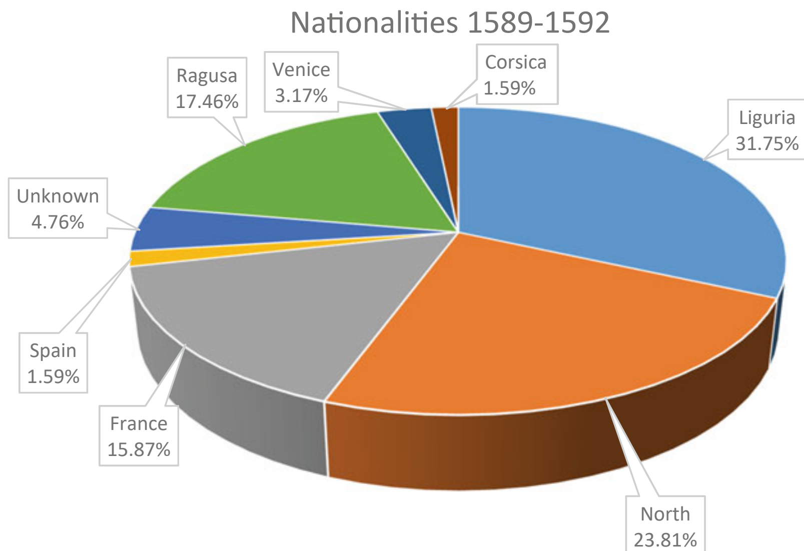
The data shows first of all the weight of the Republic's merchant marine: it made up 31.75% of traffic in the period 1589–1592 and 20.54% at the end of the century. The nationality of the *patroni*/masters of the vessel was indicated in some cases as Genoese, suggesting that they were citizens of the capital, while for those who were originally from the *Riviere*,[35] the documents identified them as 'Genoese of Sestri Levante', 'Genoese of Sestri Ponente', or simply named the place of

[32] On the procurement of capital and the available techniques used to reduce risk in maritime transport see the contribution to this volume by Andrea Zanini.

[33] The primary evidence does not allow to distinguish between owners and masters/owners, hence the choice of keeping the term *patrone* throughout this essay. On the *patrone* and his role, see Massa Piergiovanni, *Lineamenti di organizzazione economica*, 99–100; M. Calegari, 'Patroni di nave e Magistrature marittime: i Conservatori Navium', *Miscellanea storica ligure*, n.s., II (1970): 57–91, 59–66; Grendi, 'Traffico portuale, naviglio mercantile', 608–609. On financing Genoese maritime trade and its protagonists, see Andrea Zanini in this volume.

[34] Grendi, 'Traffico portuale', 598; V. Polonio, 'Devozioni marinare dall'osservatorio ligure (secoli XII–XVII)', in *Dio, il mare e gli uomini*, monographic issue of *Quaderni di storia religiosa*, XV (2008): 243–315, 305.

[35] The *Riviere* were the neighbouring coastal regions of the Republic, which extended its dominion along the coast from Monaco to the West (*Riviera di Ponente*) to Capo Corvo (next to Tuscany) to the East (*Riviera di Levante*), Genoa is in the middle of the Ligurian Gulf, between the two *Riviere*.

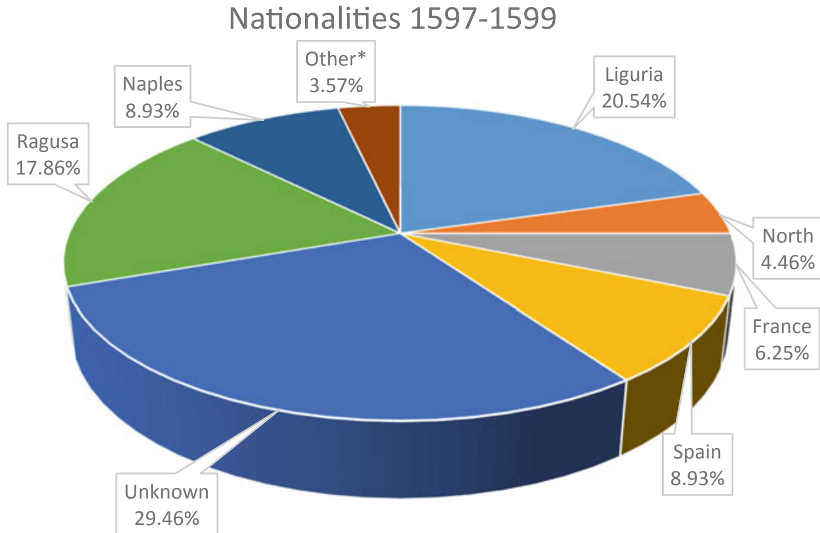


Graph 1 Nationality of *patroni*/masters submitting Average reports (1589–1592) (*Source* http://humanities-research.exeter.ac.uk/avetransrisk/ [last accessed on 29 November 2021]. The category 'North' includes Danes, English, Poles, Germans, Dutch and subjects of the Spanish Netherlands)

origin, including Portofino, Chiavari, Arenzano, Cogoleto, Savona. Most of the ships were *pinchi*, *saette*, *tartane*, *leudi* (i.e. vessels of relatively modest size, with a capacity ranging between 1500 and 3000 *cantari*),[36] as well as some galleons (with a capacity between 6000 and 12,000 *cantari*)[37] travelling mainly along the Tyrrhenian route to transport

[36] More precisely, the *pinco* was a round vessel of 10–15 metres length and a width of approximately 5 metres, with a 2/3 mast and a lateen sail. The minimum capacity was about 27 tons, but on average these vessels hauled between 108 and 180 tons. This vessel was widely used in the Republic, similarly to the *polacca*, which was also often used by Northerners; other common vessels included *tartane* and *leudi*, both used for a variety of cargoes (F. Ciciliot, 'Le navi di Varazze', in L. Gatti and F. Ciciliot eds., *Costruttori e navi. Maestri d'ascia e navi di Varazze al tempo della Repubblica di Genova (secoli XVI–XVIII)* [Genoa 2004], 83–153, 137–139; L. Gatti, *Navi e cantieri della Repubblica di Genova (secoli XVI)* [Genoa 1999], 201–236).

[37] In Genoese documents from the early modern period, vessels with this name had a fairly long hull (from 18 to more than 26 metres), a rounded form and a width of



Graph 2 Nationality of *patroni*/masters submitting Average reports (1597–1599) *Other = 1 Venice; 1 Corsica; 1 Savoy; 1 Tuscany (*Source* http://humanities-research.exeter.ac.uk/avetransrisk/ [last accessed on 29 November 2021]. The category 'North' includes Danes, English, Poles, Germans, Dutch and subjects of the Spanish Netherlands)

wheat, wine and various goods from Sicily to Genoa. This data confirms the relative importance of Ligurian merchant shipping in the last decades of the sixteenth century.[38]

Also of great importance was the presence of the Ragusan vessels, which remained stable in the two periods under examination representing approximately 17% of arrivals in Genoa. The Ragusan presence included

5–6 metres. The capacity was around 85 tons, even if there were also *galeoni* in use at the time with a considerably larger capacity, in some cases more than 230 tons (Gatti, *Navi e cantieri*, 166–167).

[38] Analysing port traffic data and estimates on the construction of new vessels in this period, Edoardo Grendi had stated that after 1560 there was no crisis in Ligurian shipping, see Grendi, 'Traffico portuale', 614.

'*navi*'[39] and galleons, medium-large vessels with a capacity between 2800 and 14,000 *cantari* (almost 700 tons). Their cargoes included wheat from Sicily along with salt, skins and others items from Spanish ports. By the 1570s, the merchant fleet of the Dalmatian city had reached its peak in terms of both number of vessels and tonnage, estimated by some authors at about 50,000 tons.[40] Its vessels had taken over not only large portions of intra-Mediterranean traffic, but extended also to North Sea ports where they brought wine, oil, skins, cotton and wax, and loaded light cloths which would then be redistributed in the markets of the Levant.[41] It is no coincidence that, according to the data provided by Grendi, their presence in Genoa reached its peak during these same years.[42] Ragusa had a close relationship with Genoa, both commercially and financially, thanks to the wide range of business opportunities available there. For example, Ragusans invested the proceeds deriving from maritime traffic in the fairs of Besançon thanks to the mediation of Genoese operators.[43] Their ships, generally of large size, plied the long-distance routes of Genoese traffic (from the East, to Sicily, and to the Spanish ports) and were often financed or hired by Genoese. By the end of the century, the Ragusan fleet still boasted over 31,000 tons of tonnage and 52 large units, and therefore still played an important role in Mediterranean trade, despite a slow decline that had begun in the 1590s. In the meantime, direct relations with Northern Europe had shrunk to the point of almost disappearing,

[39] This term was used rather generically for vessels of various capacities, but in all cases with three masts and two decks, with a length of 30–40 metres for 10–15 metres width, thus medium-large and either armed or capable of being armed (Gatti, *Navi e cantieri*, 145–155). On the Dutch record for the construction of such vessels, and the acquisition of Dutch vessels by Mediterranean ship-owners, see J. H. Parry, 'Transport and Trade Routes', in E. Rich and C. Wilson eds., *The Cambridge Economic History of Europe from the Decline of the Roman Empire* (Cambridge 1967), 155–219; also Ghezzi, *Livorno e il mondo islamico*, 22–23.

[40] B. Krekić, 'Le port de Dubrovnik (Raguse), entreprise d'état, plaque tournante du commerce de la ville (XIII–XVI siècle)', in S. Cavaciocchi ed., *I porti come impresa economica* (Florence 1988), 653–673, 673; M. Moroni, *L'impero di San Biagio. Ragusa e i commerci balcanici dopo la conquista turca (1521–1620)* (Bologna 2011), 121.

[41] Moroni, *L'impero di San Biagio*, 120.

[42] The peak was 1567, with 30 vessels with a capacity over 1500 *cantari*, see Grendi, 'Traffico portuale', 606, 636–638.

[43] D. Dell'Osa, 'La contabilità dei mercanti ragusei nel XVI secolo', in P. Pierucci ed., *La contabilità nel bacino del Mediterraneo (secc. XIV–XIX)* (Milan 2009), 123–142, 137–138.

while the Ragusan presence in Genoa, Messina and the Eastern Mediterranean remained strong, an unequivocal sign of the structural change in maritime trade that was taking place.[44]

Genoese trade with the South of the Italian peninsula was also assured by a significant number of Neapolitan ships. These had been largely absent up until 1592, but came to represent approximately 9% of arrivals between 1597 and 1599. The increase of Spanish vessels made up another trend, rising from 1.59 to almost 9%, while the presence of French ships declined from 15.87 to 6.25%. This last shift may be explained by the difficult internal situation of France during the Wars of Religion; periods of relative peace alternated with periods of intense conflict.[45] Both Spanish and French vessels arrived in Genoa primarily from Mediterranean ports: the former mainly carried wine, wool and salt; the latter operated also on the routes linking Genoa with the Tyrrhenian coast and carried a larger variety of goods.

The presence of Northern ships merits to be dealt in some detail: it made up 23.81% of traffic in the period 1589–1592, but this data needs to be analysed more carefully, since arrivals from Northern Europe were mainly concentrated in the years immediately following the establishment of the *portofranco*. According to data provided by Grendi, this represented a first rise in trade at the Genoese port parallel to the descent of Northerners. This first cycle ended around 1597, when the supply of cereals from the traditional markets of Sicily, Maremma and Provence fully recovered. The peak was in two-year period 1592–1593, when a total of 426 vessels arrived, of which 247, or 58%, can be classified as Northerners. Already in 1594, however, these made up only 10 out of 113 arrivals,

[44] Moroni, *L'impero di San Biagio*, 120–126; L. Kuncevic, 'The Maritime Trading Network of Ragusa (Dubrovnik) from the Fourteenth to the Sixteenth Century', in Blockmans et al. eds., *The Routledge Handbook of Maritime Trade*, 141–158.

[45] In April 1598, at the end of what is known as the Eighth War of Religion, King Henry IV issued the Edict of Nantes to normalize the position of the Huguenots and to try to restore peace. We can thus hypothesize that the country's internal crisis resulted in a contraction in local production, and consequently a fall in the transportion of these goods from the French coast and thus fewer French arrivals at the Genoese port. Grendi's findings regarding entry traffic and the nationality of the vessels are of little help because he presented no data for the time period under consideration here (Grendi, 'Traffico portuale', 638).

and this proportion was destined to remain substantially constant in the following years.[46]

This trend is also clear from the analysis of Average declarations submitted by Northern ships in the period under examination. Concentrated for the most part in the years 1591–1592, with a considerable decrease at the end of the century, these provide important information on the characteristics of these vessels. For the period 1597–1599, Northerner reports are only 4.46% of the total. These were vessels from the ports of Hamburg, Danzig, Amsterdam, Hoorn and Middelburg loaded with wheat or rye and had very similar characteristics, i.e. ships of medium-large size with an average capacity of around 100–150 *lasti*,[47] though we also find the arrival of some ships of 200 *lasti*, equivalent to about 450 tons. This is the case, for example, of the *La Carità*, master Giovanni Mineman of Hamburg, coming from Amsterdam and Texel and *The Three Kings*, master Andrea Ghiles of Copenhagen, coming from Middelburg. Both arrived at the end of 1591 loaded with wheat.[48] Masters classified as Northerners included Danes, English, Poles from Danzig, but also Germans from Hamburg and Lübeck, and Dutch or citizens of the Spanish Netherlands (Haarlem), as well as those whose 'generic' Northern European identity can be deduced from their names when the documentation does not specify their origin.

As it is known, the competitive advantage gained by Northern merchant navies in the Mediterranean basin was determined by their ability to build less expensive vessels with a high-load capacity, which reduced transaction costs in terms of freight rates and insurance premiums. However, as Luciano Pezzolo stated, and this is confirmed

[46] In this first phase, particularly between 1590 and1593, the Northern vessels docking at Genoa numbered more than those arriving at Livorno (300 vessels compared to 227), thanks to the intermediary work of Genoese businessmen in Flemish and Hanseatic marketplaces to attract loads of grain, necessary to combat the period of famine (Grendi, 'I Nordici', 24–30; and his 'Traffico portuale', 637).

[47] A *lasto* is the equivalent of a bit more than 48 *cantari*, or approximately 2.8 tons (Grendi, 'I Nordici', 29) On this unit of measure and the slight descrepancies across different nationalities, see *Enciclopedia del negoziante, ossia gran dizionario del commercio, dell'industria, del banco e delle manifatture*, 4 vols. (Venice: Antonelli, 1842), IV: 1047–1048.

[48] Source: https://humanities-research.exeter.ac.uk/avetransrisk/. Id 50057, 50054 (last accessed on 29 November 2021). On the Average procedure concerning the ship *La Carità* see the Felloni's paper card reproduced in Image 1.

by the data examined here, it would be wrong to think that the parallel decline of the Mediterranean fleets had the characteristics of a collapse, as these managed to maintain important positions for a long time, albeit far from the quasi-monopoly of the Renaissance era. This was thanks both to a general expansion of maritime trade from which everyone benefitted, and the ability to reconvert and redirect mercantile interests towards new traffic routes.[49] Genoese merchants, for example, took advantage of their privileged position with Spain which fostered significant commercial activity with Iberian ports.

Characteristics of the Ships Arriving in Genoa (1600–1608)

There are 369 Average declarations for the period 1600–1608 (Graph 3), a particularly high number. This is despite a gap in the documentation for the years 1604 (with only four extant declarations) and 1605 (with two),[50] although 105 and 90 ships, respectively, entered the port in those two years, and we have seen how about 60% of arriving ships usually declared an Average. It should also be borne in mind that, after a slight decline in the last years of the previous century (between 1596 and 1599 an average of 73 ships arrived per year), in these years there was a significant recovery (on average 136 ships entered the port per year), thanks above all to a new wave of Northerner arrivals, which petered out only in the early 1620s.[51] These years are also interesting as they immediately precede the 1609 extension of the *portofranco*.

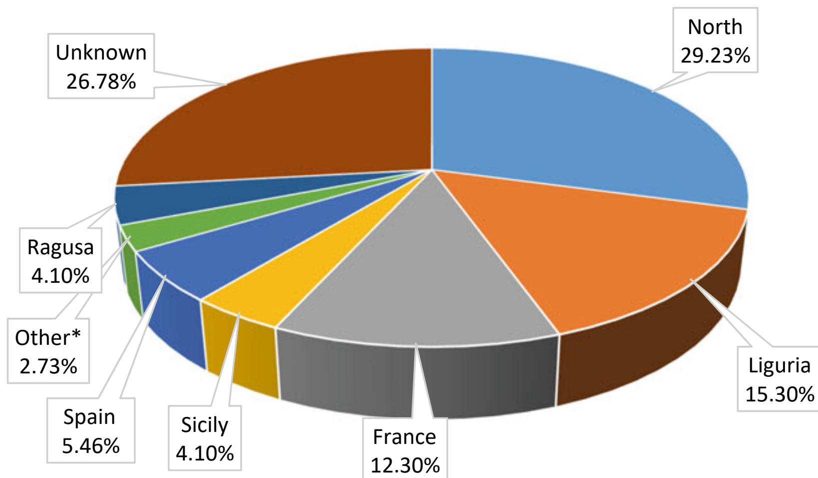
Of these 369 reports, approximately 73% contain useful information regarding the master's nationality. According to this data, ships from Northern Europe made up almost 30% of the total number of vessels submitting Average reports. Of these, 67 were Dutch, 14 German (mostly from Hamburg and Lübeck), and 14 Poles (12 from Danzig, which in recent years had reached its peak as 'the granary of Europe').[52]

49 Pezzolo, 'I traffici mediterranei', 22–24.

50 Archivio di Stato di Genova (=ASG), *Notai Giudiziari*, fl. 636–640, *Orazio Fazio*, years 1600–1608. These declarations of Average have not yet been entered into the database, so I have conducted my own analysis of the documentation.

51 Grendi, 'I Nordici', 65.

52 On the rise of Danzig and the grain traffic that departed from its port destined for the Atlantic ports of Spain and France as well as Italian ports including Genoa, see



Graph 3 Nationality of *patroni*/masters submitting Average reports (1600–1608) * Marche (1); Naples (1); Savoy (2); Apulia (2); Sardinia (1) (*Source* My analysis of data from ASG, *Notai Giudiziari*, fl. 636–640, *Orazio Fazio*, years 1600–1608; ADG, *G. Felloni*, box 1. The category 'North' includes Danes, English, Poles, Germans, Dutch and subjects of the Spanish Netherlands)

The most frequent ports of origin in the 1590s had included Amsterdam, Danzig and Hamburg, these remain frequent also in this sample, but we can also add: Lübeck, Bremen, Rotterdam, Texel, Le Havre and smaller ports in the Low Countries. Even at this stage, Northern ships had not yet got involved in intra-Mediterranean traffic, and thus did not really threaten the activity of local shipping. At the beginning of the seventeenth century, the Genoese merchant fleet was still rather active, although it recorded a decline compared to the last decade of the sixteenth century: fifty-six vessels submitting Average reports had *patroni*/masters who were subjects of the Republic, equal to 15.3% of

J. Wubs-Mrozewicz, 'Danzig (Gdańsk): Seeking Stability and Autonomy', in Blockmans et al. eds., *The Routledge Handbook of Maritime Trade*, 248–272; the same volume, on Lübeck see: C. Jahnke, 'Lübeck and the Hanse: A Queen Without Its Body', 231–247.

the total.[53] They operated exclusively along two routes: one crossing the Tyrrhenian from South to North, coming from the ports of Southern Italy and Sicily but also from Naples and its gulf (including Castellamare di Stabia and Sorrento); the other route crossing the Mediterranean from West to East, connecting Genoa with Iberian and Balearics' ports. They mostly imported wheat, wool and, especially from southern Italy, raw silk and wine. In addition to Genoese ships, many Sicilian and Spanish vessels were active on these routes. Sicilians made up 4.1% of the total, with masters from Catania, Messina, Palermo and Trapani, while the Spanish, who made up just under 5.5%, were for the most part led by Catalan masters and, to a lesser extent, from Valencia and Mallorca.

The presence of the Ragusan fleet had decreased to 4.1% compared to 17.86% in the previous period. Its decline was now evident, although the deep crisis that would determine its almost total disappearance from Mediterranean traffic started in the 1620s. This coincided with the contraction of the Ottoman economy and of Venetian trade which affected the Republic of San Biagio, forcing it not only to downsize its activity in the Adriatic, but also hampering its transport role on long-distance routes.[54]

A new and significant presence in the port of Genoa in this period was that of French vessels, 12.3% of all traffic, showing a return to levels close to those recorded for 1589–1592 (when it was approximately 15%) and almost twice the figure for the end of the sixteenth century. It's clear that the internal stability following the Edict of Nantes (1598) and the resumption of imports from Provençal ports had a positive impact. In cases, where Average declarations give precise indications regarding the master's place of origin (33 cases out of 45), we can see that they were for the most part located along the Mediterranean coast (Antibes, Cassis, Marseille, Saint Tropez and Toulon, or generally Provence), while only a scarce percentage (6 cases or 13% of the French total) originated from Atlantic ports such as Le Havre and La Rochelle.

This distinction is important because by observing the ports of origin of these ships, we can see that those based in French Mediterranean ports also operated outside the ports of southern France, transporting cereals

[53] On the restructuring of the international economy in the seventeenth century and the consequences for maritime traffic and the Genoese economy, see P. Malanima, *La fine del primato. Crisi e riconversione nell'Italia del Seicento* (Milan 1998), 113.

[54] Moroni, *L'impero di San Biagio*, 229–233.

(especially wheat and rye) from the ports of the Papal States, southern Italy, Sicily and the Maghreb coasts towards Genoa. In fact, Genoese merchants used French vessels for two reasons: first, they were considered safer for routes characterized by a high risk of attack by pirates; second, in periods of heavy traffic, the supply of transport by the merchant shipping of the Republic was not sufficient to meet the demand.[55] At this stage, however, this phenomenon did not seem to involve vessels coming from Atlantic ports, which operated exclusively along the connecting routes with Genoa. The Provençal market continued to be an important supplier of goods to the Republic.[56]

Finally, in very few cases vessels of other provenance appear in the *testimoniali*, indicating that their presence in the Genoese port was sporadic and therefore of little statistical significance: we find only one Neapolitan vessel (with a capacity of 1,600 *cantari* loaded with chickpeas from Sicily), two from Apulia, two from the Duchy of Savoy, one from the Marche region (on the Italian Adriatic coast) and one from Cagliari (Sardinia).

The substantial amount of data available for this period allows us to make a more detailed analysis of the ships that arrived in the port of Genoa and that declared an Average during the voyage. In Table 1, we see that there were proper Average calculations for 136 out of a total of 369 submitted declarations, meaning that only 36.8% of procedures were actually completed. This percentage, which is somewhat constant also across the other periods examined, can likely be explained by the popularity of Average reports in the Genoa marketplace. Reports were often submitted by the master for the sole purpose of certifying, and at the same time justifying, any damage to the cargo, in order to free himself of

[55] This issue was frequently raised by the Lomellini family, administrators of the Genoese possession of Tabarca between 1542 and 1741, who usually transported coral and other goods from the area back to Genoa on French ships (L. Piccinno, *Un'impresa fra terra e mare. Giacomo Filippo Durazzo e soci a Tabarca (1719–1729)* [Milan 2008], 177–185). For other similar cases see Grendi, 'I nordici', 349. This phenomenon emerges also from Average proceedings, with Averages declarations presented by French masters coming from Tabarka (ASG, *Notai Giudiziari*, fl. 1643, *Gio Agostino Gritta*). On the rise of French maritime trade in the Levant, and especially Provençal, see: Ghezzi, *Livorno e il mondo islamico*, 57–65.

[56] On the export of Provençal goods: G. Rambert, *Histoire du commerce de Marseille*, VII, *De 1660 à 1789, L'Europe* (Paris 1966), 389–415.

Table 1 Distribution of Average reports for the period 1600–1608, by type of vessel

Type of vessel	*N° of vessels submitting a declaration*	*N° of declarations of Average without calculation*	*N° of declarations of Average with one or more calculations*
Barca	24	12	12
Brigantino	1	0	1
Cimba	3	3	0
Feluca	6	4	2
Fregata	2	1	1
Galeone	18	9	9
Galeonetto	12	3	9
Latina	1	1	0
Nave	233	154	79
Polacca	27	19	8
Saetta/Sagittea	17	11	6
Tartana	6	3	3
Urca/Orca Fiamminga	5	1	4
Vascello	5	4	1
Unknown	9	8	1
Total	369	233	136

Source ASG, *Notai Giudiziari*, fl. 636–640, *Orazio Fazio*, years 1600–1608; ADG, *G. Felloni*, box 1

any responsibility.[57] It is no coincidence that declarations opened with the attestation of the ship's safety conditions and the correct stowage of the cargo and were reinforced by testimonies given by some crew members or passengers who were occasionally on board.

The greatest danger that weighed on maritime transport was bad weather, to cope with which the master was often called upon to take risky decisions that could give rise to a GA. Only through what had emerged from his declaration, and attached witness testimonies, could the magistracy responsible for Averages in Genoa (*Conservatori del Mare*) decide whether to accept the declaration and start the procedure for calculating the allocation of damages and expenses among all people involved in the venture, or whether to classify the incident as a PA. In this latter case,

[57] Such reports could also facilitate insurance pay-outs. In Genoa, insurance contracts could also include General Average costs, on this Iodice, Piccinno, 'Managing Shipping Risk', 83–92.

as mentioned before, any damage suffered remained the responsibility of the owner of the asset in question, or of its insurers. Furthermore, it cannot be ruled out that some of the reports of Average without an attached calculation were due to a voluntary interruption of the procedure by the parties, who might have decided to pursue a resolution through out-of-court agreements.[58]

The type of vessel most frequently found in the port of Genoa, 63%, was classified as a *nave*, although, as already underlined, the term '*nave*' in some cases was also used in a generic way, as a synonym for vessel. Proper '*navi*' were relatively large vessels, with a capacity that could vary from 240 tons up to as much as 1400–1500 tons, although it was usually 400–450 tons. These were mainly used by the Northerners because of their large size, their suitability for longer journeys and for the transport of bulk goods with low-added value, which usually meant cereals.

Another type of vessel widely used by the mercantile fleets reaching Genoa in this period were *polacche*: there were 27 among the cases examined here, equal to 7.3%. They too were mainly used for the transport of cereals despite their modest size (their capacity never exceeded 100 tons),[59] or for the transport of wine, and they travelled almost exclusively within the Mediterranean basin, often along the coasts. The *barche* had a similar capacity, although the largest could reach up to 380 tons, and were in use all around the Mediterranean in many variations.[60] They represent 6.5% of the cases analysed and generally transported the wine arriving from Southern Italy, in particular from Naples (9 cases out of 24).

Two vessels belonging to the same category[61]—*galeoni* and *galeonetti*—make up just over 8.1%. They were essentially distinguished by

[58] On the extensive use of declarations of Average in Genoa and the procedures regarding this, see the contribution of Antonio Iodice in this volume.

[59] Vessels with two masts and two decks, with an average length of 20 metres and a width of 7 metres, these *polacche* were primarily Provençal (Gatti, *Navi e cantieri*, 218–219).

[60] On the types of vessels arriving in Ligurian ports in the sixteenth and seventeenth centuries, see Gatti, *Navi e cantieri*, 189–194.

[61] The earliest information about *galeonetti* appears in Genoese notarial documents in the second half of the sixteenth century. *Galeoni* and *galeonetti* that began travelling in this period had different characteristics from those of earlier decades: these vessels became much more similar to other sailing vessels, except for a longer keel and the rule of proportion according to which the length of the main deck is three times the greatest width, which in turn is double the height to the second deck. By the second half

Table 2 Distance from the port of origin for ships submitting Average reports in Genoa (1600–1608)

Short distance (up to 90 nautical miles)	*Medium distance (90 to 400 nautical miles)*	*Long distance (more than 400 nautical miles)*	*Distance unknown*	*Total*
2.7%	12.2%	73.4%	11.7%	100%

Source My analysis of data collected from ASG, *Notai Giudiziari*, fl. 636–640, *Orazio Fazio*, years 1600–1608; ADG, *G. Felloni*, box 1

their size: galleons could carry up to 5,000 *salme* of goods (almost 1,200 tons),[62] and generally came from Sicily and Mediterranean Spain; *galeonetti*, on the other hand, had similar structure but much smaller dimensions and capacity (just under 150 tons), and were often used by French masters for the transport of various goods from Corse, Sardinia and Sicily. The use of *saette* was also quite widespread (17 cases and therefore 4.6% of the total) which is not surprising as these were fairly common in Ligurian and French merchant fleets.[63] These had an average capacity of 38 tons and were used to transport wine and wheat from Southern Italy. For this period, only 9 of the 369 declarations, or 2.5% of the total, report no information on the type of vessel subject of the Average report.

Vessels carrying a single product load comprised about 45% of the total, of which two thirds were represented by foodstuffs and above all cereals. The length of the journeys undertaken by carriers arriving in the port of Genoa (see Table 2) varied greatly. 73% of the journeys exceeded 400 nautical miles. Distances ranged from the 3,500 miles travelled by ships arriving from the ports of Poland, Denmark and Germany, to the approximately one thousand miles covered by those arriving from the Strait of Gibraltar and from neighbouring ports located on the Spanish coast, down to only 10–20 miles by the vessels that engaged in cabotage along the *Riviere*.

of the seventeenth century *galeoni* were rarely used by Ligurian ship-owners, and they disappeared altogether in the following century (Gatti, *Navi e cantieri*, 168–171).

[62] One *salma* is equal to 5 *cantari*, or 238 kg (Rocca, *Pesi e misure di Genova*, 97–98).

[63] These were vessels with three masts, between 15 and 25 metres in length and a crew of 4–5 men (Gatti, *Navi e cantieri*, 198–200; Ciciliot, ‘Costruttori e navi’, 139).

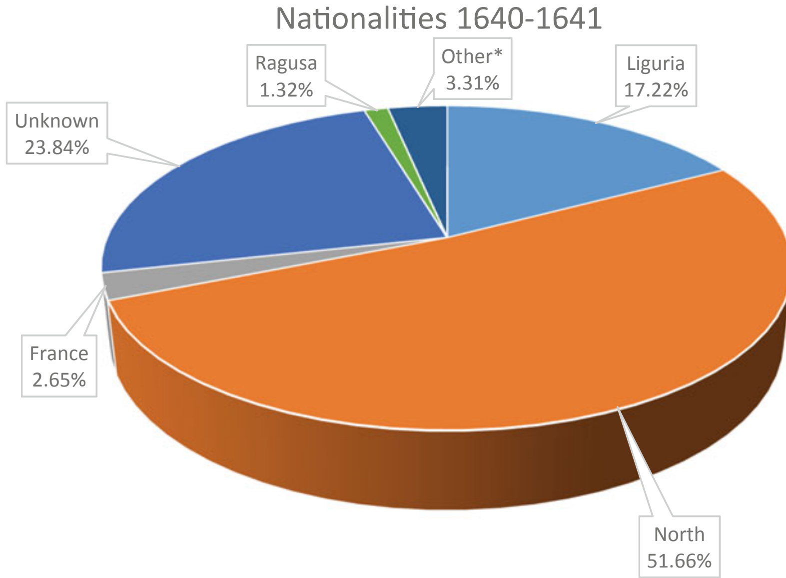
Of course, this data relates exclusively to vessels that had declared an Average. It can therefore be assumed that longer routes exposed carriers to greater risks, even if larger and thus safer ships were usually used for these voyages. Still, sailing along the coast with small vessels could also be dangerous. The presence of Average reports for modest-sized vessels (*saette*, *tartane*, *galeonetti*, *feluche*)[64] seems to confirm that even the short/medium distance routes and coastal navigation were not without risks.

Consolidation of the Northerners' Presence and the Subsidiary Function of Genoese Shipping in the Period of Crisis

An analysis of the traffic in the port of Genoa in 1640–1641 (Graph 4), based on 151 available and complete Average declarations, reveals important changes in both the nationality and typology of vessels. First, the total volume of incoming traffic of 'big' vessels (with a capacity exceeding 1,500 *cantari*) after registering a relatively regular growth from the beginning of the century to about 1620, underwent a decline lasting until 1628. This was followed by a positive phase, which reached its peak between 1630 and 1633 (despite the plague that hit Genoa in 1630–1631) and ended around 1637. The following period, which includes the two-year period analysed, was characterized by a slow decline that increased around the middle of the century and saw its lowest point in 1657 due to another, and more serious, bout of the plague.

This long downturn can be explained above all by the meagre results of the *portofranco* policies, which were hit by the provisioning policies of the city government, aimed at guaranteeing the supply of cereals for the sustenance of an urban population that had now reached 75,000, thus

[64] The *tartane* were midsize ships (9–12 metres in length) similar to *pinchi* and *polacche*, albeit smaller than *polacche*. The *feluche* were different from all other vessels, with specific characteristics: a long and narrow hull with a length between 8 and 13.5 metres, and one or two masts. They were popular for transporting passengers along the coast, and by the Neapolitan and Sicilian commercial fleets (Gatti, *Navi e cantieri*, 176–177, 222–223; Ciciliot, 'Costruttori e navi', 114–115, 142).



Graph 4 Nationality of *patroni*/masters submitting Average reports (1640–1641) (°). The category 'North' includes Danes, English, Poles, Germans, Dutch and subjects of the Spanish Netherlands. *Other = 1 Spain; 1 Corsica; 1 Naples; 1 Tuscany; 1 Persia. (°) This data includes vessels that departed in 1639 and submitted an Average report in 1640 (*Source* http://humanities-research.exeter.ac.uk/avetransrisk/ [last accessed on 29 November 2021])

limiting the possibilities of re-export.[65] In addition, there was a lack of return cargo for arriving ships as a result of the crisis in regional manufacturing production (silk, velvets, paper, soaps) and coastal agriculture (especially oil) caused by wars and famines. Another factor was the lack of warehouses for the storage of goods in transit, resolved only with the construction of new infrastructures that started in the second half of the century. The Genoese port could not yet be considered a real emporium (it would only become one the following century) and for this reason it

[65] For example, it has been estimated that in 1636 only 1/7 of grain imported to Genoa was re-exported. This situation changed only over the course of the eighteenth century, when the Ligurian port became a true grain entrepot (Grendi, 'I nordici', 62).

was very exposed to competition from both Marseille and Livorno, which offered incoming vessels more chances of obtaining return cargoes.[66]

Within the negative trend that characterized traffic in the 1630s and 1640s, as underlined by Grendi, it is possible to identify a 'Northern effect' which goes against this trend, as those shipping fleets which were already protagonists of trade along the North–South routes connecting Northern Europe with Mediterranean ports, now started to get involved in a significant percentage of Mediterranean trade.[67]

The picture that emerges from the 1640–1641 dataset confirms the trends discussed above and allows us to go into more detail. Shipping arriving at the Genoese port appears now firmly in the hands of the Northerners: from the 23.81% average annual activity during the so-called first wave, their presence had increased to 29.43% at beginning of the seventeenth century during the 'second wave', and by 1640–1641 had reached an impressive 51.66%. A contributing factor was the rise of the English presence in Genoa, which had been almost completely absent until the beginning of the seventeenth century. Of the ships filing Average reports which specified their origin, we find 19 English vessels (12.58% of the total), in contrast to the decline of the German presence due to the Thirty Years' War (in fact only two masters from Hamburg submitted declarations). We also find a substantial presence of Flemish masters (12, just under 8%). For the other cases examined, their Northern origin can be deduced from the information taken from the available documentation, but it is not possible to accurately trace the masters' provenance.

Another important change that occurred in this period concerns the carrying capacity of the Northern vessels which had grown, from an average of about 4,000 *cantari* at the beginning of the century to about 6,000 in the early 1640s. It should also be noted that these surveys were

[66] For the data on traffic at Genoa's port that can be deduced from the analysis of the registers of mooring tax, see Grendi, 'I nordici', 65–67; and his *Introduzione alla storia moderna della Repubblica di Genova* (Genoa 1973), 144–146. On the construction of new warehouses at the *portofranco*, see L. Piccinno, 'Città, porto, economia locale. I progetti di ampliamento del Portofranco di Genova tra Sei e Settecento', in Cavaciocchi ed., *Ricchezza del mare*, 773–794.

[67] Grendi, 'I nordici', 59.

based on the payment of port duties, which tends to provide underestimated values.[68] It is quite likely that declarations provided by masters for custom purposes upon their entry into the port, reported a capacity of the vessel lower than its real one, especially in periods of increased custom duties. The principal duty applied to vessels arriving in Genoa was the *jactus navium* (mooring tax) that was collected by the magistracy of the *Padri del Comune* which managed the port. In the last decades of the sixteenth century, it was two Genoese lire for every 1,000 *cantari* of capacity.[69] In 1638, however, following the increased financial needs due to improvements in the port's infrastructures, the customs system was modified with a considerable increase in the costs borne by the carriers.[70] The new system used as a unit of taxation the *salma di portata*—no longer 1,000 *cantari* (one *salma* was equivalent to about 5 *cantari*)—and decreed that vessels of over 800 *salme* had to pay a mooring tax of eighteen *denari*[71] per each *salma*, which dropped to eight for those with a capacity between 800 and 50 *salme*; vessels under 50 *salme*, on the other hand, had to pay a fixed fee, a sort of 'subscription', of four lire a year.[72]

[68] We should also remember that the cargo actually on board a vessel generally made up about 70% of the capacity. For an estimate of the capacity of Northern European vessels and an analysis of the relationship between cargo and capacity, see the data of A. E. Christensen, *Dutch Trade to the Baltic About 1600* (Copenhagen 1941), 91–104; and the elaboration of this data by Edoardo Grendi. He also attempted a correction of the data coming from fiscal sources in response to the problem of such values being underestimated (Grendi, 'I nordici', 38–39, 67).

[69] We should add to this other duties, mostly proportional to the vessel's capacity. These included the *gabella d'ormeggio* (the so-called '*schifato*') and the '*molagium*', aimed at vessels docking for the first time.

[70] The *Molo Nuovo* was built in 1638 to protect port from the insidious *Libeccio* South-Westerly wind. This had demanded considerable investment and the construction techniques used were copied by English architects for the construction of the mole at Tangiers (Massa Piergiovanni, *Lineamenti di organizzazione economica*, 92).

[71] The Genoese Lira was divided into 20 *soldi* and 240 *denari*. In this period, its value was 0.461 grams of gold and 6.236 grams of silver (see G. Felloni, 'Profilo economico della moneta Genovese dal 1139 al 1814', in G. Felloni and G. Pesce eds., *Le monete genovesi. Storia, arte ed economia delle monete di Genova dal 1139 al 1814* [Genoa 1975], 193–358, 210).

[72] The system remained unchanged until the fall of the Republic in 1797, on this see G. Doria, 'La gestione del porto di Genova dal 1550 al 1797', in G. Doria, P. Massa and V. Piergiovanni eds., *Il sistema portuale della Repubblica di Genova* (Genoa 1988), 135–198, 177–178.

Average documentation only occasionally reports the vessels' capacity, and therefore do not allow for an in-depth investigation of the increase in the size of Northern vessels. The very scarcity of this data, however, is itself rich in meaning. First, by analysing the calculations that took place for the distribution of damages and costs following the declaration's submission, we see that the carrying capacity, even where indicated, provides data that was not very relevant for the purposes of the calculation itself. Decisive elements were instead: the value of the vessel, generally verified through an appraisal ordered by the *Conservatori del Mare*; the value of the cargo, valued as per bill of lading; and the freight that had been paid.

The omission of the vessel's tonnage in declarations was particularly evident in the documentation relating to the period 1640–1641, immediately following the tax reform mentioned above. This had been reported in 36 declarations out of 63 submitted in the period 1589–1592—57% of cases. By contrast, in 1640–1641 this information appears in only 7 reports out of 151—4.6% of cases. Estimates of the vessels and their furnishings are instead almost always there.[73] It is likely that the customs tightening for arriving ships prompted masters to omit details on tonnage when submitting reports, in order to avoid problems in case of discrepancies with data provided for tax purposes.

Regarding the heavy presence of Northern ships in Genoa, we can verify which portion of traffic they had managed to penetrate, because in addition to monopolizing trade along the Atlantic route, they were now specialized in intra-Mediterranean tramp traffic. They appear to have replaced Ragusan ships, by now almost completely vanished; from 17% at the end of the sixteenth century, Ragusan presence dropped to 5% at the beginning of the following century, sinking to 1% by the 1640s. Sicilian and Iberian vessels had also disappeared, while French presence was marginal (only one master from Marseille and one French resident in

[73] See, for example, the appraisal of the *leudo Santa Maria Bonaventura*, drafted on 26 April, 1640, by the *Conservatori del* Mare. The document was drafted in order to proceed with the calculation and apportionment of damages following an Average declared due to bad weather in Sestri Levante, along the La Spezia-Genoa route. It is significant that in this official evaluation the vessel is classified as a *leudo*, while the *testimoniale* refers to a *cimba* and the calculation to a *fregata*. This makes clear that the only 'reliable' information was the actual value assigned to the vessel, in this case 310 Genoese *lire* (Source: https://humanities-research.exeter.ac.uk/avetransrisk/. Id. 50376 [last accessed on 29 November 2021]).

Venice emerge from the reports). The Franco-Spanish conflict, in progress since 1635 following the entry of Louis XIII in the Thirty Years' War, and the role of the Republic of Genoa, with its strategic position linking Spanish possessions in Italian territory and its proximity to the French border, all played a leading role in bringing about this decline.[74]

Ligurian shipping remained relatively constant, even slightly increasing compared to the beginning of the century. Report related to Ligurian ships now made up 17.22% compared to 15.30% in the period 1600–1608. Next to Northern shipping, the merchant fleet of the Republic, especially ships from the *Riviere*, represented the second pole, around which the traffic of the port of Genoa revolved. It increasingly specialized in the routes from Provence, Tuscany, Livorno and the two islands of Sardinia and Corsica, as well as in cabotage for the transport of local oil production.[75] Its dynamism is also confirmed by the activity carried out along routes where the port of Genoa was not the final destination. Average declarations in the database report some interesting cases like the *San Pietro Bonaventura* of the *patrone* Antonio Gracco of Alassio. Leaving Sardinia for Livorno in October 1640 with a cargo of dried tuna products (*tonnine*), wool and cheese, the *barca* was forced to make several stops to seek refuge due to bad weather, and due to the damage suffered declared Average in Calvi in Corsica the following December.[76]

The data above nuances the traditional historiographical view according to which the Genoese fleet suffered a significant decline starting from the last decades of the sixteenth century to reach its nadir at the end of the seventeenth.[77] There is no doubt that a high percentage of traffic was lost to the Northerners: this is evident for the connecting routes with Northern Europe, which at the beginning of the fourteenth century had been in Genoese hands thanks to a policy of increasing vessels' tonnage

[74] According to the findings of Renato Ghezzi, the decline of French shipping was evident also in Livorno, and not only during the Plague years (Ghezzi, *Livorno e il mondo islamico*, 33). One of the possible explanations is the internal revolts caused by Richelieu's tightening of fiscal policy to finance his military strategy (A. Tenenti, *L'età moderna* [Bologna 1980], 304–305).

[75] Grendi, 'I nordici', 54.

[76] Source: https://humanities-research.exeter.ac.uk/avetransrisk/ (last accessed on 29 November 2021); the declaration was then sent to Genoa as Corsica was then under the control of the Republic (ASG, *Notai giudiziari*, fl. 2084, *Gio Benedetto Gritta*, years 1639–1640, doc. 187).

[77] Ghezzi, *Livorno e il mondo islamico*, 223.

and, above all, thanks to the presence of small but dynamic communities of Genoese merchants and businessmen in England and Flanders.[78] It is equally undeniable, however, that at least until the first half of the seventeenth century, the Genoese managed to defend their role in Mediterranean maritime trade, performing a subsidiary function with respect to the maritime powers of Northern Europe and specializing in short and medium routes.

The Port of Genoa and Its Network (1640–1641)

The analysis of this data allows us to create a map of the traffic network connected to the Genoese port for the period 1640–1641 to visually verify its spread. Average reports always contain precise information regarding the vessels' port of origin and the stopovers made along the route, both for technical reasons (i.e. to find shelter in case of bad weather or for urgent repairs), and for loading cargo. Only in a small percentage of cases (less than 5%) it was not possible to trace the location of the landing places indicated in the documentation.

Map 1 provides an overview of the connections between Genoa and the entire European continent. Although it was made through the survey of the travel data from vessels that submitted an Average report in 1640–1641, as argued before, we can make fairly precise considerations thanks to the representative nature of the sample. The most distant port of call is the Russian port of Arkangelsk, at the mouth of the River Dvina on the White Sea, from which two ships arrived in 1640 (*Sancti Luiggi* and *L'Huomo Libero*). Their English masters both presented an Average report. Both left Russia on the 11 of September with a miscellaneous cargo. The *Sancti Luiggi* came up against two storms, one in the Øresund and the other off the Scottish coast, and docked in Genoa on the 21 of November after 71 days of travel. *L'Huomo Libero* suffered a storm near Cadiz which forced her to stop there for a lengthy period of time, arriving in Genoa much later, on the 14 of December.[79] Traffic between

[78] On this topic there is a rich bibliography. Among the most recent publications, see A. Nicolini, 'Commercio marittimo genovese in Inghilterra nel Medioevo (1280–1495)', *Atti della Società Ligure di Storia Patria*, n.s., XLVII (2007): 215–327 and bibliography therein.

[79] Source: https://humanities-research.exeter.ac.uk/avetransrisk/. Id. 50397, 50402 (last accessed on 29 November 2021). The year before there had already been an arrival

Genoa and Northern Europe involved a small number of ports, namely Hamburg in Germany and Amsterdam and Texel in the Netherlands (the Spanish Netherlands are absent) from which departed ships loaded with grain and miscellaneous goods. The same was true of the Atlantic coasts of the Iberian Peninsula, as only Lisbon, Seville and Cadiz are listed as ports of departure, with cargoes of sugar, cinnamon and cochineal, generally transported by English ships. The number of English ports involved was larger; in addition to London, with the greatest number of departures, there were also Dover, Plymouth and the Isle of Wight. With the exception of the arrival from Plymouth, loaded with salted fish (the so-called *salacche*), all other vessels loaded miscellaneous cargoes. In some cases, Genoa was just one of the stops planned, with some ships continuing towards Livorno, or up the Adriatic to Venice.[80]

The picture of the connections between Genoa and the Mediterranean basin is decidedly different: Map 2 highlights a dense network of ports and landings, with a greater density along the Ligurian coast (thanks to cabotage traffic), and more broadly in the area of the Northern Tyrrhenian Sea, including Corsica, which at this time was under the dominion of the Republic. The island's harbours and landings were often used as a refuge in case of bad weather by vessels that transported grain, chickpeas, pasta, salt and cheese to Genoa, in addition to rags for the paper mills of the Genoese hinterland, as well as exporting timber, oil and wine. Down the Tyrrhenian coast, the main destinations were Livorno and Piombino, from which marble and iron were imported; Rome for the import of rags and soda ash; Latina for timber, then up to the Campania ports of Naples, Sorrento and Ischia, from which came rags, wine, oil, woad and porcelain. Particularly noteworthy was the arrival of an Armenian master carrying a load of oil, cereals and fine fabrics from Corfu.[81] Moving towards the coasts of the Western Mediterranean, the French ports of Cannes and

from the same Russian port. This was the ship *Il Giove* with the English master William Cuous, who had departed on the 23rd of September with a cargo of various merchandise, and arrived in Genoa on 19 December 1639 after a stop in Alicante due to bad weather (ASG, *Notai Giudiziari*, fl. 2084, *Gio Benedetto Gritta*, doc. 95).

[80] Source: https://humanities-research.exeter.ac.uk/avetransrisk/. Id. 50284 (last accessed on 29 November 2021).

[81] This was the *galeone Santa Maria Bonaventura* whose master was the 'Persian' Bernardinus Armenius: it departed Corfù in June of, 1640, was forced by one storm to stop at the Island of Giglio along the Tuscan coast, and another storm near Corsica forced another to stop at Livorno. Among the most valuable cargo was a *gallone*, a precious cloth

Map 1 The European port network connected to Genoa (1640–1641) (*Source* http://humanities-research.exeter.ac.uk/avetransrisk/maps/ports/ [last accessed on 29 November 2021])

Marseille were both often used as a refuge for vessels coming from Spanish ports, but a small number of vessels were also coming from Marseille with cargoes of canvases. Traffic coming from the Iberian ports of Alicante, Cartagena, Cadaqués, Barcelona and the Balearic Islands was particularly

of silk with gold and silver used for ornaments (https://humanities-research.exeter.ac.uk/avetransrisk/). Id 50384 (last accessed on 29 November 2021).

Map 2 The Mediterranean port network connected to Genoa (1640–1641) (*Source* http://humanities-research.exeter.ac.uk/avetransrisk/maps/ports/ [last accessed on 29 November 2021])

intense and cargoes included hides, wool, salt, soda, sugar, fruit, honey and *libani* (i.e. vegetable ropes).[82]

As mentioned earlier, the transport of wheat absorbed a substantial share of traffic, not only from Northern Europe, but also from traditional supply centres such as Apulia (Taranto, Barletta, Trani and Manfredonia were the most common ports on loading); the islet of Tabarka (from which came Barbary products and precious raw coral), and above all Sicily (Trapani, Agrigento, Sciacca, Messina and Palermo).[83] Wheat travelled also along the Adriatic route, from Venice and Ancona, but also from further away, as we can see from an Average declaration submitted by a Flemish ship coming from Acre in Palestine, whence it had departed in October 1639 with a cargo of wheat, soda ash and silk, and encountered

[82] 'In seafaring language, the term libāno (descended from the Arabic libāno, meaning 'rope'), denotes a rope of plant fibres (esparto, reed or broom), braided and not twisted, used for various purposes in both navigation and fishing': G. Casaccia, *Vocabolario Genovese—Italiano* (Genoa: Tipografia dei fratelli Pagano, 1851), 273.

[83] On grain trade involving Genoese merchants see A. Iodice and L. Piccinno, 'Whatever the Cost: Grain Trade and the Genoese Dominating Minority in Sicily and Tabarka (Sixteenth-Eighteenth Centuries)', in L. Andreoni, L. Mocarelli, G. Ongaro, and D. Do Paço eds., *Minorities and Grain Trade in Early Modern Europe*, Special Issue—*Business History*, 2021, 1–19. https://doi.org/10.1080/00076791.2021.1924686.

a storm near Sicily. Due to the damage to the cargo, the master submitted his report in December in Livorno, and a few months later this reached the *Conservatori del Mare* in Genoa.[84]

Such cases, especially the last one, provide useful insights for future investigations of economic and maritime history through the analysis of Average documentation. We can learn about the circulation of goods, ranging from the most valuable such as silk, to the most voluminous and of lesser value such as wheat, both along traditional and new routes.

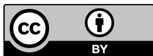
Average documentation also give insight into the characteristics of shipping carriers and their strategies; about the function of the emporium ports (Livorno and Genoa) as supply and redistributing centres; and to the mechanisms, partly still unknown, that underlay Average management. Finally, we can also gain a better understanding of how the difficult balance between those rules shared at international level, and local customs and regulations shaped the business strategies of commercial operators.

For example, regarding to the last case sketched above, why was the declaration presented in Livorno, only for this to be sent on to Genoa some months later? Why that procedure appears to have been halted? The last one an assumption made as the apportioning calculations are not there. Who were the protagonists of that case? And what might have motivated them to proceed in that way? Only through cross-referencing the data relating to the Average reports presented in Livorno and Genoa, and uploaded in the database, it will be possible to answer these questions and, more generally, to reconstruct a more complete picture of Mediterranean maritime trade in the early modern period.

[84] http://humanities-research.exeter.ac.uk/avetransrisk/. Id. 50194 (last accessed on 29 November 2021).

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.



Financing and Risk in Genoese Maritime Trade During the Eighteenth Century: Strategies and Practices

Andrea Zanini

Credit and Maritime Business

The study of the Genoese maritime economy in the pre-industrial age has seen some important contributions in recent years. These, in addition to shedding light on macroeconomic dynamics such as trade routes and merchandise flows, have enriched our knowledge about the organization of sea travel and the relationships bounding the various actors together: ship-owners, masters, merchants, charterers and insurers. One aspect of this topic that has remained in the shadows, however, is the role of investors: those who, though not participating directly in the sea shipment as ship-owners or merchants, nonetheless played a significant role since they provided the necessary money and shared in the risks related

Translated by Monica Chojnacka.

A. Zanini (✉)
Department of Economics, University of Genoa, Genoa, Italy
e-mail: zanini@economia.unige.it

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_12

to these activities.[1] Their investment in fact exposed them to the typical risks of maritime activities, including a reduction in expected profits and, in the most serious cases, a partial or total loss of the investment. Investors were fully immersed in the dynamics that shaped the relationships among the various parties involved. This was true not only in the extreme case of a shipwreck, but also in all situations of lesser gravity, which could themselves be the harbingers of significant losses and damages. Among these were also events that led to a General or Particular Average (*avaria*), from which a series of legal and economic implications emerge that require deeper examination.[2]

The analysis of capital supply paths, and of the tools available to operators and their evolution over time, is critical for understanding the dynamics that influenced the organization and management of economic activities. This is important not only from a microeconomic perspective at individual business level, but also from a macroeconomic perspective as, in order to clarify the evolution of a given sector and the underlying trends of the economy as a whole, we must reconstruct the link between production and finance, and between trade and finance.[3] Such an approach is particularly appropriate for the maritime sector, where there has always been a considerable need for credit to finance ship ownership and merchant activities. This need prompted the development of

[1] M. S. Rollandi, 'Mimetismo di bandiera nel Mediterraneo del secondo Settecento: Il caso del *Giorgio* inglese', *Società e Storia*, 23/4 (2010): 721–742; L. Piccinno, 'Rischi di viaggio nel commercio marittimo del XVIII secolo', in M. Cini ed., *Traffici commerciali, sicurezza marittima, guerra di corsa: Il Mediterraneo e l'ordine di Santo Stefano* (Pisa 2011), 159–179; L. Piccinno, *Genoa, 1340–1620: Early Development of Marine Insurance*, in A. B. Leonard ed., *Marine Insurance: Origins and Institutions, 1330–1850* (Basingstoke 2016), 25–45; L. Lo Basso, *Gente di bordo: La vita quotidiana dei marittimi genovesi nel XVIII secolo* (Rome 2016), 109–127; L. Piccinno, *Genoa: A City with a Port or a Port City?*, in W. Blockmans, M. Krom and J. Wubs-Mrozewicz eds., *The Routledge Handbook of Maritime Trade Around Europe, 1300–1600* (London 2017), 159–176; P. Calcagno, *Fraudum: Contrabbandi e illeciti doganali nel Mediterraneo (sec. XVIII)* (Rome 2019). Such studies have been made possible by the availability of rich archives; on this see G. Felloni, 'Organización portuaria, navegación y tráfico en Génova: un sondeo entre las fuentes de la Edad Moderna', in L. A. Ribot García and L. De Rosa eds., *Naves, puertos e itinerarios marítimos en la Época Moderna* (Madrid 2003), 237–267; L. Piccinno and A. Zanini, 'Genoa, Sixteenth Century-1797', *Revue de l'OFCE*, 44/140 (2015): 249–252.

[2] This is particularly evident in the fourth paragraph.

[3] For the period between the late Middle Ages and the dawn of the Industrial Revolution see J. B. Baskin and P. J. Miranti Jr., *A History of Corporate Finance* (Cambridge 1997), part I.

various legal institutions that also allow interested parties to share, limit or transfer all or part of the associated risks.[4]

As was the case in any other economic sector, maritime entrepreneurs could use two distinct channels to obtain funding: they could increase their own resources or resort to credit. In the first case, the entrepreneur acquired more resources through the reinvestment of profits or the provision of additional risk capital. This could be done by the entrepreneur himself if he had the liquidity to invest and was willing to increase his financial exposure in the business. Alternatively, one could find new members capable of bringing in fresh capital. The second channel available was the use of credit, often an easier alternative, especially where the diffusion of appropriate contractual tools and the characteristics of the financial market contributed to making this option quick and inexpensive. From an entrepreneurs' point of view, choosing one or the other option created profoundly different scenarios. If in fact the possession of adequate personal means was crucial to ensure the solidity of the business, on the other hand an excessive indebtedness, with the related increase in interest, could undermine the solidity of the enterprise itself.[5]

Profit margins were often modest for small- and medium-sized commercial shipping ventures. In order to increase one's own means, a primary strategy was to find new members through the sale of ship shares, the so-called *carati*.[6] This choice could be driven by situations of objective necessity, for example, when a single ship-owner did not have sufficient resources to acquire the entire ownership of the ship, or it could be part of a risk diversification strategy: instead of concentrating all its capital on only one ship, a ship-owner could choose to spread his investment by acquiring shares of several vessels. In this way, the firm's fixed capital was financed. The issue of working capital, however, remained

[4] R. Zeno, *Storia del diritto marittimo italiano nel Mediterraneo* (Milan 1946), 19.

[5] Regarding these aspects, not only with reference to the maritime sector, see B. Supple, *The Nature of Enterprise*, in E. E. Rich and C. H. Wilson eds., *The Cambridge Economic History of Europe*, vol. 5: *The Economic Organization of Early Modern Europe* (Cambridge 1977), 393–461.

[6] On ship-owning profits see: R. Davis, 'Earnings of Capital in the English Shipping Industry, 1670–1730', *The Journal of Economic History*, 17/3 (1957): 409–425; R. Davis, *The Rise of the English Shipping Industry in the Seventeenth and Eighteenth Centuries* (St. John's Newfoundland 2012 [1962]), 349–371.

open. There was in fact a time lag between the moment in which the start-up costs—the expenses to arm the ship, begin the voyage and acquire the goods—and the moment in which the corresponding revenues would be obtained once the destination was reached and the cargo sold. It was therefore necessary to have initial resources, which could be obtained by resorting to short-term credit.[7]

The credit tools developed over the centuries to meet the specific needs of ship-owners and commercial activities can be classified into two macro types: associative contracts and loan contracts. The former had the function of connecting the capital and the labour involved in the maritime enterprise, and of sharing profits and risks among them; the latter had a more specifically financial connotation and aimed to encourage the raising of capital to meet the multiple liquidity needs coming from the players operating in the maritime trade. Common to both types of tools was the lender's assumption of 'sea risk', since the obligation to return the capital, in addition to the corresponding profits or interests (depending on the type of contract), was conditional upon the ship's arrival. Therefore, the occurrence of a General Average had consequences for the different players involved in these contracts, depending on what was established by the respective laws or practices. These often differed substantially from one country to another. Beyond specific clauses linked to local rules and customs, the main difference was that in loan contracts the remuneration was fixed a priori, while in the associative contracts the profit, of a variable amount, was received only if the deal was successful overall, and was distributed according to the provisions of the law, the customs, or as agreed upon by the parties.[8]

The Genoese Eighteenth Century Context

To better understand the dynamics relative to the finance and management of risk in the modern age, we should turn our attention to a specific area and historical period. From this point of view, Genoa offers a particularly interesting case as the capital of a small, regional, Italian state (the Republic of Genoa) and an important Mediterranean port as well as an international centre of commerce and finance. Here, the focus is

[7] See the discussion by Davis, *The Rise of the English Shipping Industry*, 77–104.

[8] Zeno, *Storia del diritto marittimo italiano*, 289.

on the second half of the eighteenth century, a period in which, despite a relative decline of the political institutions of the Republic, the two pillars of the Genoese economy of the time—international finance and maritime trade—enjoyed a certain economic liveliness. Particularly during the period 1760–1780, *La Superba* (as Genoa was known) experienced a new expansionary cycle of high finance, evidenced by the huge foreign loans granted to states, lay and ecclesiastical entities and private citizens of different European countries. At the same time, it experienced a recovery in maritime traffic, which created an increased need for capital.[9]

Different forms of financing ship ownership and commercial activities coexisted in eighteenth-century Genoa. The most common associative contracts were the *commenda* and the *implicita*. Such agreements did not result in the formation of real companies, but rather in a sort of joint venture since the sharing of 'profits and risks' was limited to a single venture or to a well-defined period of time. These contracts were used to meet a particular type of financial need, i.e. the purchase of goods. There was a significant difference between the two contracts in terms of remuneration, at least theoretically: according to the *commenda* all of the participants in the venture, whether they contributed capital, labour or both, were to be compensated by a portion of the profits defined according to the law, custom or specific agreements between the parties; thus all participants could be considered full partners in the venture. In the case of the *implicita*, instead, the partner who contributed his own labour received a pre-established compensation rather than a share of the profits, resulting in a relationship that was more similar to a temporary employment. In practice, however, the distinction between *commenda* and *implicita* was not always so clear-cut.[10]

[9] On the Genoese economy in this period: R. Di Tucci, 'La ricchezza privata e il debito pubblico di Genova nel secolo decimottavo', *Atti della Società Ligustica di Scienze e Lettere*, n.s., XI/1 (1932): 1–63; G. Felloni, *Gli investimenti finanziari genovesi in Europa tra il Seicento e la Restaurazione* (Milan 1971); G. Giacchero, *Economia e società del Settecento genovese* (Genoa 1973); H.-T. Niephaus, *Genuas Seehandel von 1746–1848: Die Entwicklung der Handelsbeziehungen zur Iberischen Halbinsel, zu West- und Nordeuropa sowie den Überseegebieten* (Köln-Wien 1975) and A. Zanini, 'La Superba: Its Institutions and Fortune', in J. Bober, P. Boccardo and F. Boggero, eds., *A Superb Baroque: Art in Genoa, 1600–1750* (Princeton 2020), 5–21. On the decline of Genoese institutions: C. Bitossi, *'La Repubblica è vecchia': Patriziato e governo a Genova nel secondo Settecento* (Rome 1995).

[10] On the characteristics of these contracts, see C. Targa, *Ponderationi sopra la contrattazione marittima* (Genoa: A. M. Scionico 1692), 150–158; Gio Domenico Peri, *Il*

In addition to the risk at sea, the associative contracts also bore the business risk associated with the commercial arrangement, which could end with a high profit, a low profit, or even a loss. Factors could include a change in market conditions, incomplete or incorrect information upon which the transaction had been based, and fraudulent behaviour. This meant that the remuneration could be minimal or even zero, which made these contracts less attractive for those investors with liquidity, but who were unfamiliar with the maritime sector and therefore lacked the ability to evaluate their counterparts' professionalism and honesty, as well as the value of the deal. For this reason, the financing of maritime activity in eighteenth-century Genoa occurred mainly through credit. This was accomplished through contractual formulas that provided for a pre-established remuneration (interest) and required the investor to carry only the sea risk, placing the business risk on the debtor's shoulders. The most common tool in this area was bottomry, which was generally indicated in notarial deeds with the Latin expression of *cambium maritimum*.[11]

This was a speculative loan, a type already widespread in Genoa and other Mediterranean cities by the early-Middle Ages. It in turn derived from a previous credit instrument: the maritime loan or *foenus nauticum*, which had been abandoned during the thirteenth century because it was considered usury by Catholic Church after Pope Gregory IX's Decretal

Negotiante (Venice: Gio Giacomo Herz 1672–1673), part III: 38–42, part IV: 36–38. For a concrete case from this period, see Rollandi, 'Mimetismo di bandiera', 721–742.

[11] There is not a specific English word which means exactly the same as *cambium maritimum*, in the sense it had in early modern Genoa. Generally speaking, we can consider that it roughly corresponds to a bottomry contract. This was also the case of the French *prêts à la grosse aventure*, which, for example, in early modern Nantes was called *cambie*. See Y. Lemarchand, 'Comptabilité maritime (prêts à la grosse aventure): Prêts à la grosse aventure, profits aventureux (XVII^{e}s.–XVIII^{e}s.)', in D. Bensadon, N. Praquin and B. Touchelay eds., *Dictionnaire historique de comptabilité des entreprises* (Villeneuve d'Ascq 2016), 378–379. However, from a strictly juridical point of view, in English the Latin expression *cambium maritimum* could refer to different types of loans: a *bottomry loan* (the loan was guaranteed by the ship) or a *respondentia loan* (the loan was guaranteed by the merchandise) or a mixed form of the two (cf. the following paragraph). For these aspects, see: A. Baldasseroni, *Dizionario ragionato di giurisprudenza marittima, e di commercio, fondato sulle disposizioni del Codice Napoleone e conciliato alla pratica del codice di procedura*, 4 vols. (Livorno: Tommaso Masi e Co. 1810), II, 357–358; Alexander Annesley, *A Compendium of the Law of Marine Insurance, Bottomry, Insurance on Lives and Insurance Against Fire in which the Mode of Calculating Averages is Defined and Illustrated by Examples* (Middletown, CT: A. Riley 1808), 173–174.

Naviganti.[12] Bottomry had the primary function of making a certain sum of money available to the debtor to meet the needs of navigation, overseas trade, or both, by giving the ship and/or cargo as a guarantee.[13] Unlike the common loan agreement, however, in the case of bottomry, the debtor was released from the obligation to return the sum received if the mortgaged property was lost through adverse luck; otherwise, he would have to pay the creditor the initial amount plus the agreed-upon interest. The latter was higher than that provided for other forms of financing, because it included the compensation for the use of money, interest in the strictest sense, as well as the premium linked to the effective risk being run.[14]

Therefore, while structurally remaining a credit instrument, bottomry provided for the simultaneous transfer of sea risk from the debtor to the creditor. For this reason, in the event of a General Average, the creditor might be involved in the procedures for allocating damages and expenses according to established law, practice or the agreements struck between the parties. From this point of view, therefore, bottomry can be seen as analogous in some ways to the insurance contract, since, with reference to the effects given under the guarantee, the lender actually took on the same unknowns that an insurer would assume towards the insured. For this reason, many scholars considered bottomry as a sort of 'imperfect' ancestor of insurance.[15] However, this does not imply that with the

[12] G. Ceccarelli, 'Notai, confessori e usurai: concezioni del credito a confronto (secc. XIII–XIV)', in *Prestito, credito, finanza in età basso medievale* (Asti 2007), 113–153.

[13] C. B. Hoover, 'The Sea Loan in Genoa in the Twelfth Century', *The Quarterly Journal of Economics*, 40/3 (1926): 495–529; R. de Roover, 'The Organization of Trade', in M. M. Postan, E. E. Rich and E. Miller eds., *The Cambridge Economic History of Europe*, vol. III: *Economic Organization and Policies in the Middle Ages* (Cambridge 1963), 42–118, 53–59; R. De Roover, 'The *Cambium Maritimum* Contract According to the Genoese Notarial Records of the Twelfth and Thirteenth Centuries', *Explorations in Economic History*, 7/1 (1969): 15–33. On the structural differences between the *foenus nauticum* and the *cambium maritimum* see also G. Felloni ed., *Moneta, credito e banche in Europa: Un millennio di Storia* (Genoa 1997), 83–84 and 86–87. For a recent synthesis in the broader context of late medieval Italy, see Y. González de Lara, 'Business Organization and Organizational Innovation in Late Medieval Italy', in H. Wells ed., *Research Handbook on the History of Corporate and Company Law* (Cheltenham 2018), 65–87.

[14] On the many definitions of such contracts see Baldasseroni, *Dizionario ragionato di giurisprudenza*, vol. 2: 352–356.

[15] C. Kingston, 'Governance and Institutional Change in Marine Insurance, 1350–1850', *European Review of Economic History*, 18/1 (2014): 1–18, 2; Piccinno, 'Genoa,

advent of insurance bottomry disappeared: in many cases, such as the Genoese one, they coexisted for centuries. In particular, as well as marine insurance became widespread, bottomry acquired a more specific financial function, maintaining an important role within the maritime economy.[16]

The Structure of Bottomry Contracts

Bottomry contracts drawn up in eighteenth-century Genoa usually took the form of a notarial deed that was written in the presence of the interested parties or their representatives, along with two witnesses.[17] Depending on the guarantees offered, these could be divided into bottomries stipulated by the 'body, freight, tools, and equipment of the ship', by the 'goods, money and other items loaded or to be loaded', or both. In the first case, this meant a lack of resources linked to specific ship needs, such as costs for armament before departure or costs incurred during the voyage to deal with emergency situations that required repairs. In the second case, however, these were needs strictly related to the commercial operation, typically the purchase of the cargo on credit.[18] The guarantee provided depended both on the person taking out the loan, who had to own the mortgaged property or at least be able to dispose of it, and on the type of need to be satisfied.

The cost of this form of financing, i.e. the maritime interest rate, depended on the journey that was to be undertaken—such as route and length of the journey—and the risks connected to it, also in the context of

1340–1620', 29–30, see also the contributions of Giovanni Ceccarelli and Ron Harris in this volume.

[16] Despite its popularity in Genoese finance, bottomry over the course of the modern period has not yet been examined thoroughly. Among the few studies on this topic we find L. Lo Basso, 'Il finanziamento dell´armamento marittimo tra società e istituzioni: il caso ligure', *Archivio Storico Italiano*, 174/1 (2016): 81–107; and his 'The Maritime Loan as a Form of Small Shipping Credit (Seventeenth-Eighteenth Centuries): The Case of Liguria', in A. Giuffrida, R. Rossi and G. Sabatini eds., *Informal Credit in the Mediterranean Area (XVI–XIX Centuries)* (Palermo 2016), 145–173.

[17] This discussion of the structure of bottomry contracts is the fruit of an analysis from a sample of approximately 100 notarial acts from the second half of the eighteenth century, in Archivio di Stato di Genova (hereafter ASG), *Notai di Genova*, *I sezione*, 434, 538, 539, 540, 541, 562, 563, 564, 565, 838, 847, 999, 1000, 1001 and 1781.

[18] Targa, *Ponderationi sopra la contrattazione marittima*, 129–130, 138–139.

the current geopolitical situation.[19] In the late-Middle Ages, the remuneration due to the creditor for the loan granted and for the risks he assumed was commonly not indicated in explicit terms. Instead, it was hidden in the contract by resorting to the use of two different monetary forms: the currency used at the point of departure where the financing was provided, and the currency used at the arrival port for the return voyage; hence the expression *cambium* (exchange). This stratagem was essentially motivated by the desire to avoid any suspicion of usury and consequent condemnation of this credit tool. In Genoa, however, the practice was gradually abandoned. During the seventeenth and eighteenth centuries, the remuneration due to the creditor in bottomry contracts was always explicitly stated as a percentage of the sum lent.[20]

Regarding the duration of the loan, bottomries could be stipulated by the trip itself or by a deadline. In the first case, the bottomry might be for the outward journey only; in this case, the repayment of the capital and the payment of interest usually took place at the destination port and in that local currency, usually with a contact person who served in the creditor's stead. However, the parties could still agree that payment was to be made at the port of departure, as long as the journey was successfully completed. If, on the other hand, the return journey was also to be included, the payment would be made in the same currency as that of the place of the original contract, and usually to the creditor directly.[21]

In the case of contracts based on a deadline, the parties agreed that the bottomry would last for a predetermined period, generally from six months to two years (though longer times could also be agreed upon), during which time the master and/or owner were free to make any trips they deemed appropriate. The contract could include geographic restrictions, but also offer the freedom to navigate 'starboard and port in all parts of the world'. After the agreed-upon term, the so-called *termine fermo*, if the mortgaged objects were safe the debtor was then obligated to repay the loaned capital, generally within the next sixty days. However, it was often possible to extend the loan under the same conditions for a

[19] For some thoughts on this matter see L. Freire Costa, 'Privateering and Insurance: Transaction Costs in Seventeenth-Century European Colonial Flows', in S. Cavaciocchi ed., *Ricchezza del mare, ricchezza dal mare. Secc. XIII–XVIII*, 2 vols, (Florence 2006), II: 703–726.

[20] Targa, *Ponderationi sopra la contrattazione marittima*, 136–137.

[21] Targa, *Ponderationi sopra la contrattazione marittima*, 142, 146.

further period, until the so-called *termine di rispetto*, or deadline, was reached. In this way, the parties established a margin of flexibility from the outset regarding the maturity of the obligation. This granted more breathing space to conclude commercial transactions and find the money to repay the loan, which could be repaid in a single payment or, if applicable, in two or more instalments. After the deadline had passed, if the debtor was still delaying the repayment of the agreed-upon sum, the so-called land interest began to run on the lent capital, generally in the amount of four per cent per annum.[22]

As already mentioned, the creditor assumed the risks associated with the voyage, since in the event the cargo never arriving at its destination, he would not receive any compensation and would also lose the sum he had lent. He also risked suffering a pro quota reduction if the goods in question were only partially saved. The sea risk was not the only risk that the lender bore: as in any other credit relationship, he also ran the risk of the debtor's insolvency. A protection in this regard could be found in the presence of the mortgage guarantee, as a result of which, in the event of non-fulfilment, the creditor could request the initiation of an executive procedure with a consequent auction sale of the assets in order to repay his credit.[23]

With an eye towards avoiding abuses, according to the Genoese jurisprudence the amount of a bottomry loan should not have exceeded two thirds of the value of the assets given as collateral; if there was an excess, and an accident occurred, there was a presumption of fraud applicable to the debtor. This practice aimed to discourage opportunistic behaviour on the part of the latter.[24] The creditor, in turn, could easily ascertain compliance with this provision, possibly resorting to expert estimates, but had no way of knowing whether the asset in question had been used to obtain other financing, thus exposing him to excessive risk. To remedy this problem, a law was issued on the 20 of May 1644. This provided for the obligatory registration of all bottomry contracts stipulated in the city in a special register kept by the magistracy of the *Conservatori del Mare*, one of the bodies responsible for

[22] For example: ASG, *Notai di Genova*, *I sezione*, 1000 (18 December 1771).

[23] Targa, *Ponderationi sopra la contrattazione marittima*, 140–141.

[24] Targa, *Ponderationi sopra la contrattazione marittima*, 148.

managing the Genoese port.[25] The precise purpose of this provision was to avoid frequent abuses by ship-owners, masters and dishonest merchants. These, by taking advantage of the existing imperfect information in this area, sometimes entered into multiple bottomry contracts with different lenders, giving the same objects as collateral, with the result that, in the event of insolvency, the value of the mortgaged bills was insufficient to fully satisfy the creditors. It follows that potential investors were discouraged from venturing into this area and, at the same time, honest shipping operators risked not being able to obtain the capital they needed, or else were forced to pay exorbitant interest. As a result of the new law, at the time of signing a bottomry contract it was possible now to check whether or not there were previous loans on the assets being offered as a guarantee, and for what amount. This helped to reduce the uncertainties for creditors and therefore favoured the flow of capital into the maritime sector.[26]

Over time, the needs of the maritime economy prompted the implementation of further clauses aimed at protecting the lender in the event of a debtor's insolvency. The most common was to ensure that the debtor was responsible for the sum of his debt with all his assets; it was also possible to insert additional guarantees, such as sureties from third parties.[27] All of this took on particular importance when it was necessary to collect particularly large sums of money. In this regard, it should be noted that the amounts involved in bottomry contracts signed in Genoa during the eighteenth century ranged from a few tens to several thousand Genoese lire, with some individual transactions reaching above 50,000.[28]

When we turn to examine the reasons for signing such contracts, we should note that the practice satisfied a variety of needs related to both shipping and commercial activities (see Table 1). The first case is that in which a ship-owner acquired money through a bottomry to finance the

[25] Regarding this magistracy and its relationship with other entities involved in the management of the Genoese port, see L. Piccinno, *Economia marittima e operatività portuale: Genova, secc. XVII–XIX* (Genoa 2000), 67–82.

[26] ASG, *Conservatori del Mare*, 444; also in J.-M. Pardessus, *Collection de lois maritimes antérieures au XVIIIe siècle* (Paris Imprimerie royale 1837), vol. 4, 542–544.

[27] See, for example, ASG, *Notai di Genova*, *I sezione*, 1000 (4 January 1771), 1001 (3 June 1771).

[28] On the Genoese currency see G. Pesce and G. Felloni, *Genoese Coins: The Artistic and Economic History of Genoese Coins Between 1139 and 1814* (Genoa 1976).

Table 1 Types of bottomries contracted in Genoa during the eighteenth century

Debtor	*Purpose*	*Guarantee*	*Duration*
Ship-owner	Finance the construction of the vessel	Vessel	From one to eight years
Ship-owner or Master	Cover the costs leading up to departure or those incurred during the voyage	Vessel, freight; for emergency loans also the cargo	Either a single voyage or a round trip
Ship-owner or Master	Finance the shipping venture	Vessel and freight	Between six and eighteen months
Merchant	Finance the maritime business	The merchandise on board or to be loaded on board	Either a single voyage or a round trip

Source See the author's discussion of sources in footnote 17

construction of a ship, which acted as a guarantee. This form of raising capital was an alternative to the aforementioned sale of shares (*carati*) of the ship herself. In this case, however, a short-term or at most medium-term loan was used to finance a long-term investment, such as the ship, thus risking a financial imbalance in the shipping company as a result.[29]

The second possibility was that a ship-owner or a master entered into a bottomry contract to cover the costs necessary to furnish the ship, or for the unexpected expenses that would be incurred during the voyage. The borrower might be forced to borrow money because he lacked the necessary liquidity, or he might simply wish to limit his exposure to risk. The guarantee was represented by the ship, the freight and, for loans in emergency situations, possibly also by the cargo. In this case, the duration of the contract was linked to a single trip, or at most to a round trip. As for the loans obtained before departure, it was not uncommon for the creditor to be also the charterer of the ship. In this way, it was he who made the initial capital available to allow the owner or master to start shipment and thus be able to benefit from the transport service. Once the trip was concluded and the obligation to pay the freight had therefore matured, the parties could reach a net balance between their respective

[29] ASG, *Notai di Genova*, *I sezione*, 1000 (21 August 1770 and 12 March 1771), 1781 (13 January 1798).

credit and debit positions. This situation highlights a dependence of the maritime carriers on the merchants to find the working capital necessary for the smooth operation of the transport.[30]

The third case occurred when the master or the ship-owner entered into a time-limited contract. The guarantees were always represented by the ship and the freight, but this time the loan was to finance the ship-owning company for a certain period, thus guaranteeing a prospect of stability and the possibility of planning a series of trips (with possible geographic limitations on the viable routes) without the need to raise new capital for each and every shipment. In this case, the interest rate was often stated on a monthly basis, and could be graduated according to the geographical area in which the ship was to sail, with the rate increasing along with the distance of the journey. The debtor could thus evaluate the convenience of a new charter contract for a specific route, comparing the profits deriving from the transport service with the financial charges related to the provision of working capital. Here too, therefore, the bottomry was presented as an alternative to the search for new partners who provided liquidity in exchange for ship ownership shares.[31]

Finally, the bottomry contract could also be stipulated by a merchant, who obtained credit by listing the goods already loaded or to be loaded on the ship as security. The duration was linked to a single trip (or round trip); this type of contract represented a form of financing for commercial activities that was totally unrelated to the needs of navigation. It was therefore an alternative to associative contracts such as the *commenda* or the *implicita*.[32]

These primary functions could also be superimposed on the so-called indirect or 'passive' forms of insurance. Although the 'direct' or 'active' insurance contract was better at protecting the insured against the risk of the sea, some Genoese operators of the seventeenth and eighteenth centuries still preferred to resort to bottomries, which could also be contracted with an insurance function, though always in association with one of the four functions listed above. This occurred when the debtor was

[30] See, for example, ASG, *Notai di Genova*, *I sezione*, 1000 (24 April 1771) and 1001 (3 June 1772).

[31] ASG, *Notai di Genova, I sezione*, 1000 (21 August 1770, 12 March and 12 April 1771); also Targa, *Ponderationi sopra la contrattazione marittima*, 142.

[32] There are numerous examples in ASG, *Notai di Genova*, *I sezione*, 999, 1000 and 1001.

not forced to resort to credit due to lack of liquidity, but chose to enter into a bottomry contract with which to finance his shipping or commercial activity. In this case, the money he invested was not his property, and if the ship or goods he procured with these resources were lost he would not have to repay the sum received. Since, as mentioned previously, the amount of a bottomry loan could not exceed two thirds of the value of the assets given as collateral, in the event of an accident the damage suffered by the debtor could be limited to one third of the total value—i.e. that which was not covered by the loan received.[33] This made taking out an insurance contract to protect these assets less convenient, because the greatest risk fell on the creditor. If, on the other hand, the ship-owner or merchant invested his own capital, he would have a greater incentive to obtain insurance coverage, as a possible accident could result in a total loss.[34]

Although the interest on the bottomry was high, in certain circumstances it could be considered more convenient than paying an insurance premium. This was not an assessment linked to a particular route or situation: the rise or fall in insurance premiums, due to the increased or decreased risk of the itinerary or contingency, undoubtedly also determined a variation of the same type, and of similar intensity, of that of the bottomry rate. Other elements could help push in this direction. First of all, it should be noted that in the event of an accident there was a time lag before the insurers paid compensation. This represented a cost for the master, the ship-owner, or the merchant, who, in the meantime, would have to resort to credit or alternatively, reduce if not temporarily suspend his activity. In contrast, when using bottomry, the occurrence of the damage immediately eliminated the obligation to repay the loan without further consequences for the debtor.

There was also the important issue of the two options having a different tax regime: while bottomry contracts were exempt from taxes, insurance contracts were subject to the *gabella di sicurtà*: a tax of half a per cent on the insured capital, which contributed to increasing the charges borne by the contractor.[35] Additional elements that may have

[33] Targa, *Ponderationi sopra la contrattazione marittima*, 148.

[34] Targa, *Ponderationi sopra la contrattazione marittima*, 130.

[35] On this tax, see G. Giacchero, *Storia delle assicurazioni marittime: L'esperienza genovese dal Medioevo all'Età contemporanea* (Genoa 1984), 119–128.

made bottomries preferable were linked to imperfections in the Genoese insurance market, in particular the risk of relying on insurers who were not very solvent or were excessively exposed in this area, and who, in the event of an accident, might not be able to meet their obligations. Thus we see that the exchange rate played an important role in the panorama of the Genoese maritime economy not only in the late-Middle Ages, but also throughout the later centuries, both in financial terms and in terms of risk transfer. Also contributing to this was the partial inadequacy of insurance and the related market to provide appropriate responses to all requests coming from the sector, although even Genoa, starting in the 1740s, witnessed the birth of the first insurance companies established in the form of joint-stock companies.[36]

Bottomries, Average (*Avaria*) and Risk Management

In Genoese bottomry contracts, the standard formula used to indicate the risk linked to a shipment that the lender was taking on was 'risk of sea, corsairs, and fire', that is to say all those events that occurred independently of the will of the master and/or crew, resulting in partial or total loss of the vessel and/or cargo.[37] Therefore, theoretically, losses related to Averages and jettison were borne by the creditor. If there was an emergency intervention aimed at saving the ship and the cargo in the common interest of all parties involved, and therefore a General Average occurred, the creditor usually participated in the contribution in place of the debtor. In this case, the creditor was the interested party for the preservation of the assets given as security; therefore, the sharing of damages and charges deriving from General Average were the price that he was required to pay in order to avoid a total loss of the mortgaged objects, and thus preserve the right to repayment of the sum lent. If, on the other hand, the mortgaged objects suffered a specific damage falling within the case of a Particular Average, the obligation to repay the sum lent and the agreed remuneration were reduced proportionally according to the extent of the damage, since the relative risk had been transferred to the lender as a result of the bottomry contract. It would therefore be unfair to claim

[36] On the Genoese insurance market in this period, see Giacchero, *Storia delle assicurazioni marittime*, 137–164.

[37] D. A. Azuni, *Dizionario ragionato della giurisprudenza mercantile*, 4 tomes (Nice Società Tipografica 1788), IV, 57–58.

that the debtor, holding an asset whose value had decreased due to the Particular Average, was still expected to repay the loan in its entirety, thus bearing a double loss.[38]

However, this apparently clear theoretical framework corresponds to a somewhat nebulous operational context. This derives on the one hand from the different laws in force in different countries, and on the other from contractual practice. In Hamburg, for example, both General and Particular Average were borne by the debtor; in the Netherlands, on the other hand, the creditor bore the Particular Average, but not the General one, while in France the opposite situation occurred.[39] Other times, as in the Genoese case, specific regulatory requirements were lacking. These were partly compensated for by agreements between the parties who often inserted specific provisions when signing a bottomry contract. However, the scant indications found up to now in the documents relating to Average practices do not clarify how these events were managed from an operational point of view.[40] For their part, jurisprudence and doctrine both tended to extend the rules of insurance contracts to the bottomries by virtue of the aforementioned strong similarities existing between the two legal institutions.[41]

Faced with restrictive interpretation by the Genoese courts, jurists tried to clarify the situation by specifying that, in the context of the institution of General Average, it was necessary to distinguish between the so-called regular (or *piano*) and 'irregular' jettison. The former expressed a rational choice, based on a careful evaluation of the objects to be sacrificed and

[38] A. Baldasseroni, *Delle assicurazioni maritime*, 3 vols, (Florence: Stamperia Bonducciana 1786), III, 527–530; W. Benecke, *A Treatise on the Principle of Indemnity of Marine Insurance, Bottomry and Respondentia, and on Their Practical Application in Effecting Those Contracts and in the Adjustment of all Claims Arising Out of Them* (London: Baldwin, Cradock and Joy 1824), 71–116; P. S. Boulay-Paty, *Corso di diritto commerciale marittimo, giusta i principi e secondo l'ordine del Codice di Commercio*, 3 vols (Naples: Stamperia francese 1827), II, 483–488. On the differences between General and Particular Average in Genoa, see Antonio Iodice in this volume.

[39] Benecke, *A Treatise on the Principle of Indemnity*, 74–75.

[40] On the wealth of information derived from the cases of Average (*avaria*) and their uses in the study of maritime economy, see Luisa Piccinno in this volume.

[41] On the ties between General Average and insurance in the Genoese context, see L. Piccinno and A. Iodice, 'Managing Shipping Risk: General Average and Marine Insurance in Early Modern Genoa', in P. Hellwege and G. Rossi eds., *Risk and Insurance Law in History* (Berlin 2021), 83–109.

after agreeing with all parties involved. The second, on the other hand, was carried out in a situation of imminent danger, when there was no time to follow the regular procedure, and the crew acted mostly instinctively in a desperate attempt to avert shipwreck. According to eighteenth century Genoese doctrine, the exclusion of jettison from the list of risks borne by the lender was admissible only in the case of 'regular' jettison, but not for 'irregular' jettison, which, according to what appears from the surviving documents, represented the vast majority of cases of General Average. On the other hand, the exclusion of Particular Average appears to have been possible.[42]

Beyond the legal dimension in its many forms—something that was the subject of numerous and detailed analyses by the jurists of the time—to understand the significance of these dynamics from an economic-financial point of view, hitherto substantially unexplored by historiography, it is necessary to frame these aspects within the larger context of the risk management strategies adopted by eighteenth-century Genoese businessmen.[43]

An in-depth examination of bottomry contracts shows that, in order to contain the dangers inherent in shipping and commercial activities, the interested parties employed good practices dictated by prudence. When substantial amounts were at stake, for example, several creditors often participated, which limited their financial exposure and consequent risks. At the same time, when substantial capital was involved, it was common for the goods given as collateral to be loaded onto several ships, always with a view to mitigating the risk of the trip.[44]

This practice was accompanied by an extensive use of specific clauses introduced within the bottomry contracts for the declared purpose of limiting the sphere of sea risk borne by the lender. Through these restrictions, the creditor aimed to mitigate the possible negative consequences against him in exchange for a lower compensation than what would be expected in the absence of such limits. The debtor, for his part, bore a greater risk in exchange for lower financial charges. Additional clauses

[42] G. L. M. Casaregis, *Discursus legales de commercio*, 4 tomes (Venice: Typographia Balleoniana 1740), I, 165–166. On the judicial aspects of Average procedures in Genoa, see the essay of Antonio Iodice in this volume.

[43] See the contemporary considerations of Azuni, *Dizionario ragionato*, IV, 41–62.

[44] There are numerous examples in ASG, *Notai di Genova, I sezione*, 999, 1000 and 1001.

were linked to various factors, some of a contingent nature that connected the venture to the current geopolitical situation, others that reflected the power dynamic between debtor and creditor.[45]

The most frequently encountered contractual limitations included barratry and/or contraband. These were deliberate actions by the master either through wilful misconduct or negligence and, as such, usually invalidated the insurer's obligation to proceed with compensation. When these activities were explicitly excluded in the bottomry contract, and it was ascertained that the loss of the ship or cargo was in fact a consequence of one of them, it followed that the debtor was not released from his obligation to repay the sum lent along with the related interest. Such restrictions were aimed at avoiding opportunistic behaviour on the part of the master who had taken out a loan by giving the ship as guarantee and, by doing so, significantly increased the risk of damage or loss; in the event that the bottomry was stipulated by a merchant with a mortgage on the cargo, he would be able to file a claim against those responsible.[46]

A further restriction of this sort referred to the risks associated with the possible outbreak of war and resulting retaliatory actions. It was a less frequent clause than those described above, unrelated to the master's or owner's behaviour. This limitation was designed to protect the lender against a sudden change in the geopolitical framework following the signing of the contract, a change that could increase the risks to the cargo without it being possible to renegotiate the interest on the bottomry. This was a case of a completely hypothetical increase in risk, which would in no way justify a higher a priori interest rate, as would be the case had the conflict already begun.[47]

Despite the doctrinal perplexities and jurisprudential focus, contractual autonomy led to the provision of specific clauses to limit the exposure of the creditor in the case of a Particular Average, a General Average or both. These were the so-called free of Average (*franco d'avaria*), 'free of jettison' (*franco di gettito*) or 'free of Average and jettison' (*franco d'avaria e gettito*) clauses. Once again parallels emerge with the insurance

[45] For examples of the intersection of various clauses, see ASG, *Notai di Genova, I sezione*, 1000 (31 January, 12 March, 12 and 24 April 1771).

[46] ASG, *Notai di Genova, I sezione*, 838 (20 January and 6 February 1790). On barratry and contraband: Targa, *Ponderationi sopra la contrattazione marittima*, 195–196, 304–308.

[47] ASG, *Notai di Genova, I sezione*, 1000 (31 January 1771).

sector, where we find strikingly similar provisions aimed at limiting the liability of insurers.[48]

The establishment of these contractual limits was part of the normal dialectic between creditor and debtor, a way to find a compromise between the risks borne and the cost of the loan. This was regardless of the fact that, in the event of any disputes, the court could consider such provisions null and void and make the creditor bear the burden of the related charges. These clauses also likely acted as deterrents to abuse or misconduct. Average, General or Particular, could derive from the underestimation of a danger, from having overloaded the ship, from the incorrect stowage of the cargo and so on. An Average could even be completely simulated to mask serious negligence or to defraud the other interested parties.

More specifically, if the parties expressly agreed to exclude Particular Average, any charges fell entirely on the debtor, who had in any case to proceed with the return of the sum lent along with interest. In the case of a General Average, however, the debtor could still find partial relief from the losses suffered, by making use of a specific compensation tool, that is, by participating in the procedure for the allocation of charges and damages. Thus, any exclusion of General Average from the risks borne by the creditor was also motivated by the existence of a solidarity mechanism capable of cushioning the impact that such an event would have on the debtor, whether he was the ship-owner, the master or the merchant. On the other hand, it is more difficult to understand the extent to which the exclusion of General and/or Particular Average was the result of free negotiation between the parties or was imposed by one of the two. Although the debtor may have wanted these limitations in order to obtain credit at a lower interest rate, it is very likely that the creditor could tip the balance by being able to demand the consideration of such limitations as indispensable conditions for providing the loan. The contractual documentation does not allow us to investigate this aspect,

[48] F. Foramiti, *Enciclopedia legale, ovvero lessico ragionato di gius naturale, civile, canonico, mercantile-cambiario-marittimo, feudale, penale, pubblico-interno e delle genti*, 5 vols (Venice: Tipi del gondoliere 1838–40), 2, 473; Targa, *Ponderationi sopra la contrattazione marittima*, 133–135.

but some characteristics of the Genoese bottomry market are suggestive that these considerations were taken into account.

The Genoese Bottomry Market and Its Protagonists

In the eighteenth century, a bottomry loan proved to be a flexible instrument, capable of responding to the various needs of shipping and commerce, and capable of creating a favourable context for attracting investments. This was a crucial advantage, since Genoa offered an abundance of capital and considerable investment opportunities in both domestic and foreign markets.[49] In this regard, a fruitful avenue of investigation is that of capital supply circuits, and especially of those mechanisms facilitating the encounter of supply and demand. A second element worthy of further analysis concerns bottomry creditors; in particular, we need to understand whether and to what extent the maritime sector represented an attractive form of investment for Genoese capitalists operating in the high-finance sector. A further question is whether bottomries were mainly used to meet the needs of navigation, as the studies available up to now for the Ligurian area suggest, or whether they also met the needs of maritime trade.[50]

Like other markets, and despite the existence of specific established rules and practices, the Genoese bottomry market was an informal one, in which there were neither authorized brokers nor subjects appointed by law to provide credit. Therefore, the elements favouring the match between supply and demand were the debtor's reputation, his interpersonal relationships with potential lenders, the possible offer of additional guarantees, and/or the presence of clauses that limited the creditor's risk.[51]

[49] For an overview: G. Felloni, 'Genova e il capitalismo finanziario dalle origini all'apogeo (secc. X–XVIII)', *Atti della Società Ligure di Storia Patria*, n.s. LVI (2016): 71–90.

[50] Lo Basso, 'Il finanziamento dell´armamento marittimo', 81–107 and his 'The Maritime Loan', 145–173.

[51] Among the studies of other centres, see G. Coen, 'Il contratto di cambio marittimo nella piazza di Ancona nel Settecento attraverso gli atti notarili', *Quaderni storici delle Marche*, 2/1 (1967): 66–77; C. Carrières, 'Renouveau espagnol et prêt à la grosse aventure (Notes sur la place de Cadiz dans la seconde moitié du XVIIIe siècle)', *Revue d'histoire moderne et contemporaine*, 17/2 (1970): 221–252; R. Rodríguez Lopes, 'The

Regarding lenders, investigations of Genoese bottomry contracts reveal the coexistence of different financial circuits. In the case of contracts stipulated for relatively small amounts (up to 2,500 Genoese lire), financiers mostly belonged to the small- and medium-sized bourgeoisie of the city. Some of them were very active in this area: thanks to their good knowledge of the maritime sector and the operators who moved within it, they stipulated numerous contracts. This is the case, for example, of Alberto Macaggi, who between 1760 and 1765 concluded nineteen contracts lending a total of 19,950 Genoese lire, or of Nicolò Ghiara, who between the 1750s and 1760s signed ten contracts investing a total of about 12,200 Genoese lire.[52]

When the sums lent become large, however, the scenario changed significantly. The beneficiaries had to be figures of proven solidity, with a network of relationships that also included members of the upper-middle class and the aristocracy who were able to ensure them access to substantial capital. To understand these dynamics, it is necessary to change perspective with respect to most of the existing studies; instead of examining bottomries from the creditor's point of view, we should look at the situation from the perspective of the debtor.[53] The case of Nicolò Maria Cavagnaro is emblematic in this regard. He was a dynamic and enterprising businessman, well known in Genoa in the second half of the eighteenth century, whose business was characterized by a strong international focus. He operated in a wide and varied range of sectors: from manufacturing to shipping activities, maritime trade, high finance and was also involved in the management of public contracts on behalf of

Maritime Loan in the "Carrera de Indias"', *Revue international de droit de l'Antiquité*, 48 (2001): 259–276; A. Delis, 'Shipping Finance and Risks in Sea Trade during the French Wars: Maritime Loan Operations in the Republic of Ragusa', *International Journal of Maritime History*, 24/1 (2012): 229–242; S. Marzagalli, 'The French Atlantic and the Dutch, Late Seventeenth-Late Eighteenth Century', in G. Oostindie and J.V. Roitman eds., *Dutch Atlantic Connections, 1680–1800: Linking Empires, Bridging Borders* (Leiden-Boston 2014), 103–118; G. Spallacci, '*Il prestito a cambio marittimo ad Ancona nel XV secolo*', *Storia economica*, 21/2 (2018): 251–275; on the complexity of the Amsterdam case: C. van Bochove, 'Seafarers and Shopkeepers: Credit in Eighteenth-Century Amsterdam', *Eighteenth-Century Studies*, 48/1 (2014): 67–88.

[52] The data can be found in ASG, *Notai di Genova*, *I sezione*, 434, 538, 539, 540, 562, 563, 564, 565.

[53] J. F. Bosher, 'The Gaigneur Clan in the Seventeenth-Century Canada Trade', in O.U. Janzen ed., *Merchants Organization and Maritime Trade in The North Atlantic, 1660–1815* (St. John's Newfoundland 1998), 15–51.

foreign states. These activities were notable not only for their breadth, but also for the amount of the total assets they required (equity plus debts), which, at its peak, reached over six million Genoese lire.[54] Among the many transactions concluded there were numerous bottomries, an area in which he essentially operated as a debtor. Although during the 1760s the number of contracts was quite small, they peaked between 1770 and 1772, when Cavagnaro was the beneficiary of thirty-two bottomries, for amounts ranging from 1,300 to over 100,000 Genoese lire (with an average of 21,500 Genoese lire per contract). In this way, he managed to obtain a total of about 690,000 Genoese lire. This change in strategy was related to a new ambitious project that Cavagnaro carried out in partnership with a Genoese patrician, the Marquis Francesco Saverio Viale: to develop trade between Genoa and Morocco thanks to privileges obtained by the sultan Muhammad III (Muḥammad ibn ʿAbd Allāh).[55] This new business required huge capitals: in fact the bottomry contracts were almost all connected to round-trip travel between Genoa and Mogador (now Essaouira) and provided an interest rate of twenty per cent. Among Cavagnaro's lenders, we find very active operators in the field of bottomry from the Genoese 'middling sort' such as Domenico Lanata and Serafino Palmeri, but we also find members of the financial elite, including Francesco Barbieri, Giuseppe Brentani, Giovanni Nicolò Crosa and Francesco Maria Zanatta. It was precisely this latter group that provided the largest share of money: almost 80% of the total (see Table 2). Their participation might appear to be connected to that of a Genoese nobleman, the Marquis Viale. In reality, it was Cavagnaro who enjoyed close ties with these investors and persuaded them to finance the business. It is no coincidence that, a few months after the launch of the commercial company, Francesco Saverio Viale appointed Cavagnaro as his agent, granting him broad freedom to increase capital though bottomries, under the conditions he deemed most appropriate, in order to develop trade with Mogador.[56]

Therefore, while providing an attractive remuneration for a limited duration, bottomry contracts do not seem to have constituted a usual

[54] For more on him: A. Zanini, *Impresa e finanza a Genova: I Crosa (secoli XVII–XVIII)* (Genoa 2017), 89–100, 133–142.

[55] Zanini, *Impresa e finanza a Genova*, 95–96.

[56] ASG, *Notai di Genova*, *I sezione*, 1000 (30 August 1770).

Table 2 Bottomry loans obtained by Nicolò Maria Cavagnaro and his investors (1770–1772)

Investors	*No. contracts*	*Total amount* *	*Average amount* *	*%*
Francesco Barbieri	9	244,874	27,208.2	35.6
Francesco Maria Zanatta	4	120,000	30,000.0	17.4
Giuseppe Brentani	1	104,151	104,151.0	15.1
Giovanni Nicolò Crosa & C	3	79,318	26,439.3	11.5
Serafino Palmeri	6	55,930	9,321.7	8.1
Domenico Lanata	3	26,000	8,666.7	3.8
Giuseppe Lupi	1	22,000	22,000.0	3.2
Marcantonio Pittaluga	1	17,250	17,250.0	2.5
Gerolamo Carrosio	2	12,750	6,375.0	1.9
Domenico Centurione	2	6,000	3,000.0	0.9
Total	32	688,273	21,508.5	100.0

Source Extrapolation by the author based on ASG, *Notai di Genova*, *I sezione*, 999, 1000 and 1001
*Genoese lire

form of use of capital for international financial operators. Instead, they only occasionally availed themselves of this practice, when they believed to be able to evaluate the soundness of the transaction based on the individual debtor and his reputation.[57]

Finally, as far as the reasons behind the financing are concerned, we see that numerous bottomry loans, especially those of a higher amount, were not aimed at the needs of navigation, but were primarily contracted to finance commercial operations. In some cases, Cavagnaro agreed with his suppliers to convert their credit into a bottomry contract, giving the goods in question as collateral, and undertaking to repay the loan, plus interest, after the arrival at the ship's destination. In this way, Cavagnaro could sell the load and pay off his debt even if he lacked liquidity for the deal; at the same time this arrangement discharged the sea risk onto

[57] However, we should note that these bottomries did not have a happy ending: in 1773 Cavagnaro was forced to declare bankruptcy. This had heavy repercussions in all the businesses in which he was involved, including the Morocco enterprise and the related bottomry contracts; see Zanini, *Impresa e finanza a Genova*, 133–134.

Table 3 Bottomry loans obtained by Nicolò Maria Cavagnaro by type of guarantee (1770–1772)

Type of guarantee	*Amount (Genoese lire)*	*%*
Goods	315,491	45.9
Ship, freight and goods	195,080	28.3
Ship and freight	177,702	25.8
Total	688,273	100.0

Source Extrapolation of the author based on ASG, *Notai di Genova*, *I sezione*, 999, 1000 and 1001

the lender.[58] This situation suggests a dependence of some commercial operators on others, just as in the case of loans taken out by master or ship-owners who lacked the money necessary to furnish the ship and thus embark on the voyage. At other times, however, Cavagnaro took advantage of the opportunity to obtain a maritime loan by offering his own goods that were on a ship as collateral. In this case, the purpose was purely speculative, with the financial tool allowing him to obtain additional money to use in his business.[59]

By classifying the thirty-two contracts according to the guarantees offered, and therefore taking into consideration the reasons underlying the loan, we see that 45.9% of the sums refer to contracts in which the guarantee is represented by the goods; 28.3% to contracts in which there is a pledge on the ship and the goods jointly; and the remaining 25.8% on the vessel alone, i.e. for needs strictly related to navigation (see Table 3).[60]

Overall, it can be said that in eighteenth-century Genoa the market in bottomries was highly developed and flexible according to the varied needs of both shipping and merchant businesses. The elements highlighted here help shed new light on the relationship between the financing of maritime trade and the sharing or reduction of the associated risks and, at the same time, call for further exploration. In particular, the

[58] See, for example, ASG, *Notai di Genova*, *I sezione*, 1000 (9 January 1771) and 1001 (3 June 1772).

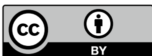
[59] Numerous examples can be found in ASG, *Notai di Genova*, *I sezione*, 1001.

[60] Some contracts with pledge on a ship involved vessels belonging to the Marchese Viale, these were also used to insure additional cash flow for the company: ASG, *Notai di Genova*, *I sezione*, 1000 (9 January and 18 December 1771).

search should continue for documentation capable of shedding light, from a practical point of view, on the participation of bottomry creditors in General Average procedures. This will help to verify whether and to what extent the doctrinal and jurisprudential norms were applied on an operational level, or if what had been agreed upon between the parties prevailed, taking into account that, as is well known, in the maritime sector theory and practice were not always aligned.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.



Mature Systems

Divide and Rule: Risk Sharing and Political Economy in the Free Port of Livorno

Jake Dyble

In February 1671 the English resident in Florence, John Finch, presented the Tuscan Grand Duke with a memorandum.[1] The merchants of London had made a representation to King Charles II, complaining of 'exorbitant' maritime Averages being awarded in Tuscany. According to the London merchants, the *Consoli del Mare di Pisa* (the Consuls of the Sea in Pisa) frequently granted outrageous damages to shipmasters by means of these

[1] John Finch to Cosimo III, 4 February 1671 (1670 in the Tuscan style where the year began on 25 March—both dates are given on the letter), Archivio di Stato di Firenze (ASF), *Miscellanea Medicea* (MM), Piece 358, Insert 17 (358-17).

The research for this essay was conducted thanks to funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and Innovation Programme ERC Grant agreement No. 724544: *AveTransRisk—Average—Transaction Costs and Risk Management during the First Globalization (Sixteenth-Eighteenth Centuries).*

J. Dyble (✉)
University of Padua, Padua, Italy
e-mail: jacobarthur.dyble@unipd.it

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_13

Averages.[2] While the abuses were various, the motivation behind them was clear: 'the same *Consoli*, with every ease, agree unto the pretensions of the masters of the vessels to invite them to the port of Livorno, though with damage to those that employ them'.[3] In short, the Tuscans were accused of having transformed a routine legal procedure into a tool of political economy. In order to redress these abuses, Finch requested that maritime jurisdiction over English merchants and mariners be transferred to the English national consul in the port.

This essay shows how the humble, quotidian procedure known as General Average (GA) was in fact repurposed by the Tuscan authorities to promote the commercial vitality of Livorno, the Grand Duchy's chief port. In doing so, it demonstrates how commercial justice—or perhaps more accurately, administration-as-justice—helped to constitute the free port's wider political economy, which was at once highly creative and intensely pragmatic. Just as Maria Fusaro has found in the case of Venice, commercial justice, and particularly the procedural element, could be utilised to achieve political-economic ends.[4] Finch was wrong, however, in claiming that GA was being used to 'invite' masters to the port; GA procedures were rather a defensive measure. Through an examination of seventeenth-century Tuscan GA documentation, this essay demonstrates how the Grand Duchy was able to successfully fend off threats posed by larger nation-states which had adopted increasingly protectionist, mercantilist policies.[5] By using GA to divide the cost of the French *cottimo* tax between all financially-interested parties, the Tuscans not only blunted the impact of a levy designed to squeeze Livorno out of trade with the

[2] John Finch to Cosimo III, ASF, MM, 358-17 (4 February 1671), 'l'esorbitanze frequenti del Tribunale di Pisa nel conceder Avarie sopra le mercanzie alli capitani di vascelli'.

[3] John Finch to Cosimo III, ASF, MM, 358-7 (4 February 1671), 'li detti consoli con ogni facilità accordando alli capitani di vascelli le loro pretenzioni per invitarli al Porto di Livorno, benché con danno di quelli chi li impiegano'.

[4] M. Fusaro, 'Politics of Justice/Politics of Trade: Foreign Merchants and the Administration of Justice from the Records of Venice's Giudici del Forestier', *Mélanges de l'Ecole Francaise de Rome*, 126 (2014): 139–160.

[5] The following analysis is principally based on analysis of GA cases housed in the Archivio di Stato di Pisa, specifically on cases from four sample years: 1600, 1640, 1670, and 1700. For each of these years, all GA cases adjudicated in that year were examined. Transcriptions of these cases can be found in the *AveTransRisk* database, accessible at http://humanities-research.exeter.ac.uk/avetransrisk.

Levant, but in fact ensured that merchants in Marseille helped to foot the bill. By clandestinely granting English and Dutch merchants in the port free rein in negotiating GA damages with shipmasters, they successfully resisted English attempts to win consular jurisdiction for themselves in Livorno. These findings not only demonstrate the limitations of nationalist commercial policies; they also serve as a reminder that commercial history cannot be analysed solely through the lens of national narratives.

The Free Port of Livorno and Its International Competition

The 'free port' of Livorno embodied a myriad of policy innovations geared towards attracting international shipping to a part of the world where it had little business being otherwise. In lieu of conspicuous natural advantages, Livorno had to find other ways to sustain commercial interest. Tuscany did not have much in the way of raw materials to offer the international customer. Its traditional textile industry, while somewhat diminished, continued to operate, buts its survival depended on having access to imported primary materials like wool.[6] Livorno's position in the Mediterranean was somewhat strategic, not least because it was one of the few Italian ports not under Spanish domination. Its remarkable success in the seventeenth century can be attributed firstly to investment in infrastructure and otherwise to policy innovations.[7] These included Grand Ducal protection for minority communities, targeted immigration policies and the famous 'free benefit', a law which allowed goods to be stored for up to a year and re-exported without the payment of duties.[8] Protection

[6] C. Tazzara, *The Free Port of Livorno and the Transformation of the Mediterranean World* (Oxford 2017), 30–31; P. Malanima, *La decadenza di un'economia cittadina: l'industria di Firenze nei secoli XVI–XVIII* (Bologna 1982), 294–295.

[7] For a summary of the development of Livornese infrastructure, both physical and institutional, see L. Frattarelli Fischer, 'Lo sviluppo di una città portuale: Livorno, 1575–1720', in M. Folin ed., *Sistole/Diastole: Episodi di trasformazione urbana nell'Italia delle città* (Venice 2006), 271–334; Some classic academic studies of the early modern port include J.-P. Filippini, *Il Porto di Livorno e La Toscana (1676–1814)*, 3 vols. (Naples 1998); M. Baruchello, *Livorno e il suo porto: Origini, caratteristiche e vicende dei traffici livornesi* (Livorno 1932); a recent single-volume history of the port is L. Frattarelli Fischer, *L'arcano del mare: un porto nella prima età globale: Livorno* (Pisa 2018).

[8] A. Addobbati, *Commercio, rischio, guerra: Il mercato delle assicurazioni marittime di Livorno, 1694–1795* (Rome 2007), 66; Tazzara, *The Free Port of Livorno*, 25.

from debts incurred in foreign states, for example—a privilege technically reserved for those intending to settle in the port—was routinely extended to anyone who asked for it.[9] Safe conducts which were initially intended to apply only to people were also applied to pirated goods which were resold on the Piazza.[10] By the mid-seventeenth century these protections, innovations and indulgences had given rise to a conception of Livorno as a 'free port'. Livorno can plausibly claim to be the world's first, though since there was no universally accepted definition of a free port in the seventeenth-century, the point is debatable. The institutional make-up of the port continued to evolve throughout the seventeenth century, culminating in the 1676 reforms, which saw the complete abolishment of import and export duties, with only an anchorage fee being levied on ships, and a flat fee—the *stallagio*—levied on every parcel brought into the city.[11]

By the second half of the seventeenth century, Livorno, little more than a fortress in a swamp one hundred years earlier, had become the boom town of the Mediterranean, but competition was intensifying. Livorno's rivals were emulating the free port's successful example, with customs reforms at Nizza Villafranca in 1667, Marseille in 1669, and Genoa in 1670.[12] While these reforms had severe limitations in practice, Livorno's comparative advantage was clearly being challenged, and not just by imitation alone. In 1664 the French authorities had instituted a new tax, the '*cottimo*' and a levy of around 20% on all ships flying the French flag who visited the Levant ports. Originally publicised as an *una tantum* (an extraordinary measure to be applied just once) to pay for the expenses incurred by the French nation in the Levant, it soon became a standard imposition. More worryingly, it also took on a protectionist aspect, since ships that sailed directly from the Levant to Marseille were exempted. The not-so-subtle aim of this measure was to starve Livorno, often an

[9] Tazzara, *The Free Port of Livorno*, 82–84.

[10] Ibid.

[11] L. Frattarelli Fischer, 'Livorno 1676: La città e il porto franco', in F. Angiolini, V. Becagli and M. Verga eds., *La Toscana nell'età di Cosimo III* (Florence 1993), 45–66.

[12] G. Calafat, 'Livorno e la camera di commercio di Marsiglia nel XVII secolo: consoli francesi, agenti e riscossione del cottimo', in A. Addobbati and M. Aglietti eds., *La città delle nazioni: Livorno e i limiti del cosmopolitismo (1566–1834)* (Pisa 2016), 237–276, here at 238.

intermediary stop on the way back from the East, of its Levant traffic.[13] The English meanwhile, through the diplomatic efforts of their resident, John Finch, were attempting to wrest maritime jurisdiction over Englishmen away from the Grand Duchy, and to secure jurisdiction for their own national consul. One response to these various pressures was made manifest in commercial justice and administration, specifically in the administration of Averages.

At this point, it is necessary to briefly explain this important but rather technical branch of maritime law. Maritime Averages are little-known outside of the shipping industry, but these humble procedures were and indeed remain an important lubricant in the vast machine of global transportation, determining who should bear the various extraordinary costs and damages sustained by ship and cargo during a sea voyage.[14] Such costs were part and parcel of the difficult and dangerous business of moving goods across the high seas. The word Average itself is used to refer to both the damage or expense itself and the procedure used to determine who pays. There were several different types in the early modern period, corresponding to different types of expense or damage, but the principal division was between Particular Average (PA) and General Average (GA). PAs were those damages incurred unintentionally as the result of a *force majeure*. GAs, on the other hand, were those damages voluntarily incurred in order to save the ship or cargo or to bring about the successful completion of the voyage, the archetypal example being a jettison, when cargo is thrown overboard to save the ship in a storm. While PA had to be borne by the owner of the damaged property alone, GA costs were shared over all stakeholders, both ship and cargo owners, in proportion to their financial interest in the voyage. (It is in this sense that 'average' gained its common contemporary meaning of a mathematical mean.) The Tuscan sources refer to both types using the word *avaria*, though the way that damages were divided points to a clear conceptual boundary between the two. While PAs could usually be resolved privately, since they concerned only one party and were usually non contentious, requests for declarations of GA could become more complicated.

[13] Calafat, 'Livorno e la camera di commercio di Marsiglia', 249.

[14] See Maria Fusaro's contribution in this volume.

In Tuscany, GAs were dealt with by the *Consoli del Mare di Pisa* who continued to retain jurisdiction over many commercial and maritime matters in Tuscany even after the port of Pisa was eclipsed by nearby Livorno.[15] These *Consoli* were two in number, both Florentine nobleman appointed by the Grand Duke, and were assisted by a chancellor who was a university-trained lawyer.[16] Though the court of the *Consoli* was thus a court of law, its function with regard to GAs might more accurately be described as 'administration-as-justice'. This is a concept rather foreign to our own world view, accustomed as we are a clear separation of powers, and autonomous administrative machinery.[17] GAs could indeed give rise to conflict and, on occasion, what can properly be described as 'litigation', and in these cases the *Consoli* did indeed have to adjudicate; in general, however, their role in GA cases was one of certification. Since voyages and hence GAs usually involved merchants from more than one port, it was necessary that the process be certified by a recognised judicial body in order that payments might be obtained from absent merchants. Since private agreements were only held to be binding upon those actually present, it was necessary that the decision to award a GA be officially recognised. Insurers might likewise refuse to pay towards Average contributions if they were not party to a private agreement.[18] It is for this reason that, though GAs could technically be dealt with privately, masters and merchants seem to have rarely availed themselves of this option in Tuscany. Livorno was often an intermediate stop which formed part of a longer voyage, in particular for those ships travelling from Northern Europe through the Mediterranean to the Levant, and thus there were frequently interested merchants located elsewhere.[19] Though we have

[15] On the court of the *Consoli* see A. Addobbati, 'La giurisdizione marittima e commerciale dei consoli del mare in età medicea' in M. Tangheroni ed., *Pisa e il Mediterraneo: Uomini, merci, idee dagli Etruschi ai Medici* (Milan 2003), 311–315; M. Sanacore, *Consoli del Mare a Pisa, dall'età medicea alle riforme leopoldine* (Unpublished tesi di laurea University of Pisa 1983); G. Calafat, 'La somme des besoins: rescrits, informations et suppliques (Toscane 1550–1750)', *L'Atelier du Centre de recherches historiques*, 13 (2015), available at: https://journals.openedition.org/acrh/6525 (last accessed 30 December 2021).

[16] ASF, *Auditore poi Segretario delle Riformagioni*, 116.

[17] L. Mannori and B. Sori, *Storia del diritto amministrativo*, new edn (Rome 2013).

[18] Balthazard-Marie Emerigon, *Traité des Assurances et Des Contrats à la Grosse*, 2 Vols (Marseilles Jean Mossy 1783) Chapter 12, 1: 652–653.

[19] Addobbati, *Commercio, rischio, guerra*, 52–56; Filippini, *Il Porto di Livorno*, 1, 45.

evidence of cases which were brought before the *Consoli* after participants had failed to resolve the matter between themselves, in most of these examples there were usually only one or two merchants involved, and in all cases Livorno was both the origin and final destination of the voyage, with all interested parties thus located in the port.[20]

To the Benefit of the Shipmaster?

The full circumstances of Finch's letter, raised in the context of a particularly tense moment in Anglo-Tuscan relations, merit their own separate treatment.[21] The complaint about Averages was just one part of an ongoing struggle between England and Tuscany over questions of commercial justice and jurisdiction, the most pressing of which was control over seamen's wages, a thing for which the English had long lobbied without success.[22] The dispute over Average was part of this ongoing struggle. On this occasion, analysis will be confined to the use of Averages more broadly.

Though Finch had correctly identified these as a tool of Tuscan political economy, he was wrong about exactly how this worked: his claim that the *Consoli* 'agree[d] unto the pretensions of the masters of the vessels to invite them to the port of Livorno' was somewhat wide of the mark. Although GA procedures were weighted in favour of the shipmaster, this was probably not a Tuscan peculiarity but was to an extent a structural feature of all Average procedures. What is more, seeking to favour shipmasters would have been a fairly ineffectual way of attracting traffic to the port.

[20] Archivio di Stato di Pisa (ASP), Consoli del Mare (CM), Atti Civili (AC), Register 27, Case Number 30 (27–30), Case adjudicated on 31 November 1600; ASP, CM, AC, 418-11 (14 May 1700).

[21] Finch's request and the circumstances surrounding it will be dealt with in full in a separate essay, co-authored with A. Addobbati: 'One hundred barrels of gunpowder: General Average, maritime law, and international diplomacy between England and Tuscany in the second half of the seventeenth century', *Quaderni Storici*, 168 (forthcoming)'; see also M. Fusaro and A. Addobbati, 'The Grand Tour of Mercantilism: Lord Fauconberg and his Italian Mission (1669–1671)', *English Historical Review*, 137 (2022): 692–727.

[22] See M. Fusaro, 'The Invasion of Northern Litigants: English and Dutch Seamen in Mediterranean Courts of Law', in M. Fusaro, B. Allaire, R. Blakemore and T. Vanneste eds., *Law, Labour, and Empire: Comparative Perspectives on Seafarers, c.1500–1800* (Basingstoke 2015), 21–42, 31–34.

Shipmasters held several advantages in Average procedures, one of which was a large degree of control over the evidence on which the case was based. GA cases in Tuscany began, as elsewhere, with the production of a narrative which explained how the damage or expense in question had been incurred. This document was generally referred to as the *consolato*, deriving from the fact that it was often made in front of a consular authority. It seems to have been widely understood that such a document should be made at the first available opportunity after the accident.[23] As such, a Tuscan Average procedure could be initiated using an accident report which had been produced elsewhere. About half the cases in the year 1670 were cases of this sort. The other half had *consolati* which had been produced in Tuscany itself, and here the proper forum for the creation of this document was the court of the Governor of Livorno and his *auditore*. Once the master brought the case before the *Consoli*, a second document was drawn up, referred to as a *testimoniale e domanda*, which was usually an exact copy of the narrative in the *consolato* with an official request for GA attached.[24]

Thanks to the nature of a sea voyage, it was difficult for merchants to challenge this narrative.[25] Since the incident usually happened far from land, it was almost always impossible to independently certify what had happened. When examined individually, the *consolati* give a striking sense of immediacy and human drama.[26] When examined collectively, however, it is very clear that these documents were created with legal help and

[23] There does not appear to have been any specific written norm concerning this. Nevertheless, masters filed their reports in the first port they could enter as a matter of course. The importance of making the *consolato* at the first available opportunity is likewise demonstrated by instances in which the shipmaster, forced to take shelter somewhere outside of a port, made a short provisional statement in front of a local castellan before later making a standard *consolato*. See ASP, CM, AC, 196-37 (2 January 1639/40); ASP, CM, AC, 25-3 (28 June 1600).

[24] This nomenclature is not rigidly observed by the sources. The *consolato* is sometimes referred to as a *testimoniale* and vice versa. Sometimes the *consolato* is also referred to as a *relazione* or *dichiarazione*. They are, however, the most common labels applied to these documents and have been adopted for the sake of clarity.

[25] See also the contribution of Antonio Iodice in this volume.

[26] On the *consolati* see P. Castignoli, 'Struttura e funzione dei consolati per fortune di mare a Livorno', *La Canaviglia,* 8 (1983): 39–42; M. Berti, 'I rischi nella circolazione marittima tre Europa nordica e Europa mediterranea nel primo trentennio del Seicento ed il caso della seconda guerra anglo-olandese (1665–1667)', in S. Cavaciocchi ed., *Ricchezza del mare ricchezza dal mare: secc. XIII–XVIII* (Florence 2006), 809–839.

naturally converged towards a formulaic standard specifically designed to trigger a GA declaration. The resulting account usually takes the form of a series of pre-fabricated modules stacked on top of one another, designed to counter the most predictable objections to the sacrifice. These begin with the unimpeachable condition of the ship at the outset of the voyage, followed by the unavoidability of assuming voluntary damage, and then relating the active decision of the master to assume that damage, usually with the consultation or at least consent of the rest of the crew.[27] A master had a strong incentive to make sure that his actions were portrayed in the best possible light: since there had been damage to the ship and/or cargo, he had to prove in the first instance that he was not culpable if he wanted to receive his freight.[28] A declaration of GA could also benefit the master financially if there had been damage to the ship and he was a shareholder, since the damages would also be shared with the cargo interests.[29]

The master's account had to be supported by the testimony of witnesses, usually between two and five depending on the jurisdiction in which the *consolato* was drawn up. The merchants were also represented by a *procuratore* (attorney) in front of the *Consoli*, who submitted a list of interrogatories on which the witnesses could be examined. Yet in the vast majority of cases encountered in the Pisan archive the only witnesses produced were the other seamen on board.[30] Since the master might handpick which witnesses he produced, we should not be surprised that these replicated their master's testimony in the vast majority of cases. In one particularly contentious PA case, that of *La Madonna del Rosario, San Domenico, e Sant'Antonio di Padova*, the master appears to

[27] For example, the majority of the narratives begin by describing the condition of the ship at the beginning of the voyage, 'good, strong, watertight, provided with the things necessary for navigation, ready to undertake whatever voyage', e.g. ASP, *CM,* AC, 319-13, (28 February 1669): 'Il comparente il S. Giuseppe di Nicolò Olandese, Capitano della nave *S. Gio.* in suo proprio nome, et in ogni miglior modo quale brevemente dice come il di 26 settembre prossimo passato fece partenza dal porto d'Arcangelo con detta sua nave, buona, forte e stagna, attrassata [sic] e corredata per fare qualsivoglia viaggio'.

[28] See G. Rossi, 'The Liability of the Shipmaster in Early Modern Law: Comparative (And Practice-Oriented) Remarks', *Historia et Ius*, 12 (2017): 1–47.

[29] C. Cipolla, *Il burocrate e il marinaio: La 'Sanità' Toscana e le tribolazioni degli inglesi a Livorno nel XVII secolo* (Bologna 1992), 101.

[30] There appears to be no discernible pattern regarding the selection of witnesses. Sometimes a mixture of crew and officers are selected, sometimes all officers, sometimes all crew.

have deliberately selected witnesses he knew would be unavailable for re-examination on arrival in Livorno.[31] The ship had headed to Crete with a cargo of wine, where the Christian fleet was fighting the last, desperate stages of the War of Candia. According to the *consolato*, the ship had been at anchor in the bay of Standia when the vessel of the 'generalissimo', Vincenzo Rospigliosi, had come into sight. The French and Papal ships at anchor in the bay had given the customary salute, and such was the explosive force of these repeated blasts that many of the boxes of wine came loose and scattered, ruining the contents.[32] A list of twenty-one interrogatories to be put to the witnesses, asking them whether they felt such a thing would have been possible had the wine been properly secured in the first place. Unfortunately, the two witnesses were not available for comment, one having left the ship in Milazzo, and the other having left in Genoa. In their stead, the master put forward two new witnesses, who, rather than responding directly to the interrogatories, simply affirmed the testimony of their former colleagues.

The *Consoli* were thus beholden to the carefully curated information with which they were presented. The only thing against which the narratives could be checked was the physical evidence of the ship itself, if it had not already been repaired (and this was no use at all in a jettison, of course). Such examinations were sometimes carried out by the master carpenters assigned to the galleys of the Order of St Stephen.[33] These were hardly definitive, since the experts might easily be bribed to give a certain verdict.

Similar difficulties beset other maritime procedures, of course—insurance claims, for example—but the problem was particularly acute with regard to Averages because of the nature of the conceptual dividing line between PA, paid by the affected individuals, and GA, which was paid for collectively. PA was used when damages had been incurred involuntarily

[31] ASP, CM, AC, 319-6 (5 February 1669).

[32] ASP, CM, AC, 319-6 (5 February 1669), 'et essendosi cominciati a visitare li genti delle galere di Malta et altri capitani de vascelli per le visite delli quali si sparorno diversi tiri di cannone dalle galere et essendo il comparente con tutti gli altri vascelli che quivi si ritrovassero ancorato fra il mezzo della dette galere per le vicinanza per lo sparo che esse facevano… la nave travagliò in maniera che le botti si allentorno e si sparorno senza poterni porte rimedio alcuno'.

[33] ASP, CM, AC, 319-25 (18 April 1670); ASP, CM, AC, 320-2 (9 May 1670); ASP, CM, AC, 321-25 (25 August 1670).

as the direct result of a *force majeure*; GA was used when damages had been incurred intentionally to avoid total loss or even greater damages. In reality, however, this line was far from clear cut. From the right point of view, almost any event could be made to seem the result of a voluntary action, and the master's control of information could ensure this was the case.[34] The case of the French ship *Cavallo Marino* is a case in point, demonstrating how damage resulting from a storm might be recast as the result of human action with a few narrative convolutions:

> and because [bailing out] was not enough, there being always more water in the bilge in such a way that the ship was in evident danger of sinking and being lost with all its cargo, with… the advice of his officers and mariners and for the universal benefit, to save the ship, he resolved to run before the wind towards Baffa, and in order to round the point that he found there, and thus enter into the harbour, he made to make all sail, during which [manoeuvre] the mizzen mast broke.[35]

We cannot be sure whether all sail was necessary or not (the *Consoli* could not be sure either, and that was partly the point). What is clear is that an event which might more obviously be related as the direct result of natural forces ('storm breaks mast') could equally be presented as the result of human endeavour ('master breaks mast through evasive actions'). Since a master would most likely be making *some* proactive steps in a crisis, the scope for such reframing was large. Since the decisive criterion for dividing PA from GA was that the action be voluntary—an internal decision on the part of the master—this could not be easily disproved.[36]

Though GA cases were challenged on occasion, these features meant that the master entered the procedure from a position of strength, and he could be fairly certain of getting at least some of what he asked for. Masters could not afford to develop a reputation for abusing Averages,

[34] See Andrea Addobbati's contribution to this volume.

[35] ASP, CM, AC, 319-20 (18 March 1669), 'perché ciò non era bastante essendo sempre più l'acqua nella sentina di modo che la nave si ritrovava in evidente pericolo di sommergersi e perdersi con tutto il suo carico, e però con il consiglio de suoi offici e marinari e per beneficio universale per salvare la nave suo carico, risolse poggiare verso Baffa, e per montare la punta che ci ritrovava avanti di potere entrare in quella spiaggia fece fare tutta forza di vele mediante la quale si ruppe l'albero della mezzana'.

[36] See Andrea Addobbati's contribution to this volume.

but considerable leeway was on offer. If the *Consoli* favoured the ship-master, therefore, this was not necessarily the result of deliberate policy but was rather a reflection of these structural advantages. What is more, even had the *Consoli* been particularly friendly to masters, this could not, as Finch had claimed, have increased traffic to the port. In in order to declare a GA, it was necessary to be a port where at least some of the receivers were present; doing otherwise would have been highly irregular, and no instance has been found in which a master attempted to do so. While the *consolato* needed to be made as soon as possible after the accident, this document then had to be taken to a scheduled stop in order to actually carry out the GA. It was therefore impossible for a master to make a declaration in a port which was not already a scheduled stop. Decisions about where to stop were based on merchants' calculations about markets and profits, not by masters themselves.[37] GA alone was thus unable to augment port traffic because any ship declaring GA in a particular port had been due to stop there anyway.

The French *Cottimo*

When GA was used as a political tool, it was used in a way which benefitted both masters and merchants—or, at least, those merchants present within the port of Livorno. One of the ways it did so was by allowing the French *cottimo* tax to be shared through GA, even though it could not be described as a voluntary sacrifice. The *cottimo*, as mentioned, was a levy of around 20% on all ships flying the French flag who visited the Levant ports, with the exact amount determined by a ship's tonnage and port of origin. The term had originally been used by the Venetians in Alexandria to describe an imposition levied to fund the debts of the community; the French *cottimo* was likewise originally instituted to fund the activities of the French nations in the Levant in 1664. In subsequent years it was strengthened and took on protectionist aspects, in that any ship which travelled directly to Marseille from the Levant was made exempt.[38] The intention was to cut Livorno, a great rival of Marseille, out of the trade with the Levant. Guillaume Calafat has noted however, that despite the

[37] See Sabine Go'scontribution to this volume, where she argues that the Chamber was a means of persuading masters/merchants to finish the voyage in Amsterdam.

[38] Calafat, 'Livorno e la camera di commercio di Marsiglia', 249; on the rivalry between Marseille and Livorno see Filippini, *Il Porto di Livorno*, 1, 93.

imposition of this ‘French Navigation Act’, and despite the large funds it raised for the Marseille chamber of commerce, ships flying the French flag continued to call at Livorno.[39]

The evidence of maritime Averages demonstrates how the use—or abuse—of GA helped the Tuscans to offset this new handicap. There are several instances in the Tuscan documentation of ships flying the French flag placing the cost of the *cottimo* payments into GA, thus sharing them with the other interested parties in the voyage. The justification for doing so under existing GA norms and practices was not obvious. Firstly, normative material on GA was ambiguous as to whether GA should be used only to save a ship in peril, or whether it can be used more widely for the ‘general benefit’ in order to aid the onward progress of the voyage through the payment of extraordinary expenses.[40] The *Lex Rhodia de Iactu*, the section of Justinian’s *Digest* which deals with GA, contains contrary statements on the matter, with most jurists claiming that the procedure was for ship’s saved from peril, and others suggesting that GA was any sacrifice made for the general benefit.[41] The evidence of the Tuscan accident reports, which make frequent reference to sacrifices made for the ‘universal benefit’, show that, in practice, the latter conceptualisation prevailed, but even here there was a clear expectation that the expense should be incurred voluntarily or intentionally.[42] Even if the

[39] Calafat, ‘Livorno e la camera di commercio di Marsiglia’, 252.

[40] This is, essentially, the issue which divided English GA practice from GA elsewhere at the time of the compilation of the York-Antwerp Rules. See R. Cornah, ‘The Road to Vancouver: The Development of the York-Antwerp Rules’, *Journal of International Maritime Law*, 10 (2004): 155–166. Islamic jurisprudence ruled that the ship had to be in a state of peril, on this see Hassan Khalilieh’s contribution in this volume.

[41] A. Watson, *The Digest of Justinian*, 4 vols (Philadelphia 2011), 2: 419–422; for analysis of the *Lex Rhodia de Iactu*: J. J. Aubert, ‘Dealing with the Abyss: The Nature and Purpose of the Rhodian Sea-Law on Jettison (*Lex Rhodia de Iactu*, D 14.2) and the making of Justinian’s Digest’, in J. W. Cairns and P. J. du Plessis eds., *Beyond Dogmatics: Law and Society in the Roman World* (Edinburgh 2007), 157–172. On these issues see also Daphne Penna’s contribution in this volume.

[42] In the cases from 1640, every single judgement and *testimoniale* contains this phrase (8 out of 8). In the cases from 1670 just over half (10 out of 19) of the *testimoniali* contain it, as do around a third of the judgements (6 out of 19). In the 1700 cases, 11 out of the 12 judgements contain a reference to the universal benefit, and it is mentioned in either the *testimoniale* or the *consolato* in 9 of those cases. The exception to the rule is, interestingly, the cases from 1600, where it finds its way into only 3 *testimoniali* or *consolati* out of a possible 12 cases and is mentioned in only 1 judgement.

cottimo might be described as an extraordinary expense necessary for the successful prosecution of the voyage, it could hardly be described as a sacrifice voluntarily or intentionally incurred. The fact that the placement of the *cottimo* into GA was unorthodox, even abusive, is suggested by the fact that the accident reports—the *consolati* and *testimoniali*—never mention the *cottimi* in their account of the voyage. Although there are reports contained in the files signed by the French consul which attest that the *cottimo* was in fact levied, and although they appear in the final GA calculation, there is no mention of its payment in the official report and call for GA, and thus no explicit justification for why GA should have been used.[43]

Despite its somewhat dubious legality, however, the use of GA to divide these costs was an ingenious decision on the part of the Tuscan authorities. Most straightforwardly, the use of a cost-sharing device like GA blunted the impact of the imposition by sharing it; rather than being borne by the shipmaster or ship-owners, or those who had freighted the ship, the cost was now equitably borne in by all interested parties in a straightforward manner using existing procedures which were understood by all. Moreover, the involvement of all interested parties meant that it was not just the Livornese merchants who bore the cost. Those merchants who were resident in Marseille—the final destination of many of the ships flying the French flag—would likewise be called upon to make their contribution. The effect was to involve those same merchants which the protectionist measure was designed to protect. The use of GA could not entirely neutralise the effect of the *cottimo*, of course; it still, ultimately, increased the cost of including Livorno in any voyage. But these costs now fell in a more convenient manner and in a way far less prejudicial to the interests of the Tuscan port. The evidence certainly suggests that the result was bearable for the affected merchants, since French traffic continued to land at Livorno as before.

Co-opting the port of Marseille into paying for its own protection was possible because of the full mutual recognition granted to different jurisdictions in matters of GA, despite differences that might have existed in the way that those different centres adjudicated Averages. This was a necessary concession if the system was to work at all. A ship might touch in several different ports under several different jurisdictions during the

[43] ASP, CM, AC, 319-20 (18 March 1669); ASP, CM, AC, 322-33 (16 December 1670); ASP, CM, AC, 322-39 (23 December 1670).

course of the voyage, and in an age of slow communications, the GA contributions decided upon in one centre had to be respected in others. There was little chance for redress in this context. If the system was to work at all, most decisions had to be accepted as *fait accompli*. This problem is illustrated by the case of the *Madonna di Monte Nero*, a ship which had carried out a large jettison in order to escape a corsair in 1671. The original *consolato* had been made in Zante and the GA itself was processed in Messina. When the ship arrived in Livorno, it was discovered that a few items of jettisoned cargo had not been accounted for in the original *calcolo* made at Messina, and the cost of these was added into the Average by the Pisan *Consoli*.[44] A few months later one of the interested merchants, Giovanni Francesco Cardi, petitioned the case to the Tuscan Grand Duke, arguing that the Average ought to be struck down.[45] In their response to his petition, the *Consoli* argued that, on a practical level, reversing the case would be impossible:

> since many receivers in Messina will have come up with and paid the said Average and [this] being not really their interest but that of their correspondents, they will have passed on the debt of the payment... it would not be right if the receivers were held to account when they have acted in good faith and in execution of a sentence and calculation passed in judgment of the tribunal…it does not seem appropriate to retract a sentence and calculation of Average done in the tribunal of the *Consolato del Mare*...otherwise would follow from it that which is never done, that a sentence and calculation given and made in the tribunal of their magistrate would be retracted, and it would bring great confusion to navigation and mercantile commerce.[46]

[44] ASP, CM, AC, 326-13 (26 June 1671).

[45] ASP, CM, Suppliche (S), 985-333 (Decision by Florentine Ruota, 8 February 1671).

[46] ASP, CM, S, 985-333 (8 February 1671). 'Perché non pare conveniente si possi retrattare [sic] una sentenza et calcolo di Avaria fatto nel Tribunale del Consolato dell [sic] Mare della Città di Messina, altrimenti ne seguirebbe quello che mai si è praticato, che verrebbero retrattate le sentenze et calcoli che vengono date e fatti nel tribunale del magistrato loro, et apporterebbe grandissima confusione alla navigatione [sic] et commercio mercantile… ancora perché molti ricevitori di Messina che haveranno [sic] riscosso e pagato detta Avaria et essendo l'interesse non proprio ma delli mercanti loro corrispondenti, à quali haveranno dato debito del pagamento… non sarebbe giusto che fussero [sic] tenuti del proprio, quando ciò hanno fatto in virtù et esecutione [sic] di una sentenza e calcolo di quel tribunale passato in giudicato'.

Similarly, we find GAs adjudicated in Marseille being given full legal recognition in Tuscany. On one occasion, a shipmaster brought a case before the Pisan *Consoli*, claiming that he was having trouble extracting payments from merchants in Livorno for a GA which had been originally adjusted in Marseille.[47] The *Consoli* commanded that the merchants in Livorno pay the contributions without hesitation, and the merchants themselves did not even bother to object.

Tuscany's 'Northern' Policy

The use of GA for the *cottimo* strained the contemporary understanding of GA and the norms which governed it; the Tuscan policy regarding GAs requested by English and Dutch shipmasters, on the other hand, was irregular in procedural terms. As has been noted, when the ship had sustained damage as part of the 'sacrifice', it was customary that the court should appoint experts to assess the ship, itemising damage and deciding how much compensation should be received for each. Yet here appears to have been a clear distinction in this regard between the treatment given to the majority of shipmasters and those who originated from Northern Europe. Whereas Italian masters continued to receive a visit from experts to assess damage, 'Northerners' were often allowed to submit their own damage reports, detailing what they thought their claim should be worth. In some cases, these damage reports were not even notarised.[48]

The *Consoli* were careful to give these irregularities the outward appearance of probity. In these cases in which they allowed Northerners to submit their own damage assessments, the *Consoli* awarded an explicitly 'reduced' level of compensation for the shipmaster in their final judgement.[49] At first glance then, it would seem that, far from penalising

[47] ASP, CM, AC, 322-16 (8 November 1670).

[48] Notarised examples: ASP, CM, AC, 319-13 (28 February 1669); ASP, CM, AC, 320-7 (28 May 1670). Unnotarised examples: ASP, CM, AC, 319-28 (28 April 1670); ASP, CM, AC, 321-30 (30 August 1670).

[49] It is of course difficult to say that a ship 'belonged' to a particular nation before the practice of registered home ports. Even after the advent of this practice, labelling a ship 'Dutch' or 'English' (other than in a narrow legal sense) would be of questionable analytical value and validity, since the owners of the ship, its crew, and its cargo might all be of different nationalities (none of which might be the same as the registered nationality). The Tuscan documents give 'national' labels only to persons, i.e. shipmasters and seamen, which may or may not reflect these actors' own identification. I therefore

Northern merchants as Finch's letter suggests, the *Consoli* were being especially diligent in safeguarding their interests. They even appointed a *curatore* to represent those who were absent. The choice of *curatore* and the objections raised are revealing however. Let us take just two examples: the GA case of the *Principe Enrico Casimiro*, a ship with a Dutch master, and the GA of the English ship, the *Alice and Francis*, which both unfolded in the year 1670, the year before Finch's complaint.[50] In both cases, the ship had survived combat with a corsair, occasioning not only damages but also large expenses for material used in combat. In both cases, the choice of the court for the position of *curatore* fell upon a Doctor Michele Moneta. This character was certainly no stranger to the *Consoli*, since we later find him attesting a citation in the position of vice-chancellor of the court.[51] In both cases, this Moneta railed rhetorically against the 'null and invalid request' which he solemnly promised to oppose in 'beginning, middle, and end', refusing to validate 'even one of the intentions of the present adversary'.[52] In each case, he then made the following identical objections: that the things related in the *testimoniale*

restrict myself to talking of Northern masters rather than ships. That said, the five ships in question clearly had strong associations with Northern Europe:

ASP, *CM*, AC, 318-26 (22 January 1669). *Speranza Incoronata*: Master and all three witnesses from Hamburg, list of damages submitted in Dutch and translated by the 'consule Amburghese' in Livorno.

ASP, *CM*, AC, 319-13 (28 February 1669). *San Giovanni*: Master and all three witnesses from the Netherlands,

ASP, *CM*, AC, 319-28 (28 April 1670). *Mercante Fiorentino:* Master and all three witnesses from England, final destination was London.

ASP, *CM*, AC, 320-7 (28 May 1670). *Principe Enrico Casimiro*: the ship bears a Dutch name, list of damages submitted in Dutch, Master from the Netherlands, two witnesses from the Netherlands, two from Hamburg. Final destination was Amsterdam.

ASP, *CM*, AC, 321-30 (30 August 1670). *Alice and Francis*, Master and all witnesses from England, Voyage began in London, Finch's letter attests the involvement of English merchants.

[50] ASP, CM, AC, 320-7 (28 May 1670); ASP, CM, AC, 321-30 (30 August 1670).

[51] ASP, CM, AC, 322-16 (9 November 1670); ASP, CM, AC, 322-27 (9 December 1670).

[52] ASP, CM, AC, 321-30 (30 August 1670), 'nulla et invalida domanda alla quale l'habbia [sic] impugnativa relatione [sic] e premesso solenne pretesto in principio, mezzo, e fine della presente scritta et di non convalidare cosa alcuna dalli intentione [sic] del presente l'aversario [sic]'. ASP, CM, AC, 320-7, 'nulla et invalida domanda alla quale l'habbia impugnativa relatione e premesso solenne protesto in principio mezzo e fine della presente scritta et di non convalidare cosa alcuna dall'intentione del predetto signore avversario'.

were not true, that the master had not made his request in the proper form, nor proved that the *consolato* was true, but had rather done everything fraudulently. That is to say, he made the most bombastic and least specific objections he possibly could have done. Such objections padded out numerous exceptions raised by merchants against GA claims, but were usually accompanied by at least one far more concrete objection.[53] What is more, the truth or otherwise of the events outlined by the *consolato* was hardly the pertinent issue in these specific cases. No one could reasonably doubt the essential truth of what had happened because both ships were in convoy with other vessels including a ship of war. By the time the *Alice and Francis* was filing for Average in Livorno, the news of its battle with Algerian corsairs had already reached the London Gazette.[54] The devil, if he were to be found, would be in the detail, i.e. in the specific amounts requested by the master. But on these specifics Moneta's objections were conspicuously lacking.

In the light of these objections, the *Consoli*'s 'concession' to the Northerners begins to reveal itself as illusory. This was not legal wrangling but rather a conspicuous simulacrum of it. The *Consoli* made a show of resistance and probity before settling on a stern but fair compromise. It seems likely that many masters were aware of the role assigned to them in this courtroom melodrama: in the case of the *Principe Enrico Casimiro*, it was the master who formally requested the *curatore*. In reality, what seems most likely is that in cases involving 'Northern' shipmasters, the shipmaster and the merchants in the port were resolving the GA claim between themselves, and that the reduction offered by the *Consoli* in fact reflected a compromise figure agreed by the various parties; the *Consoli* were simply fulfilling the function of certification which was necessary in order to export the judgement abroad and were accepting these agreements at face value without carrying out the investigative functions with which they were ostensibly charged.

In at least one GA case, that of the English ship *Alice and Francis*, it is certain that the case had been agreed between master and merchants beforehand.[55] There are several discrepancies in the chronology of the

[53] E.g. ASP, CM, AC, 320-7; ASP, CM, AC, 197-29 (26 April 1640); ASP, CM, AC, 196-37 (2 January 1639).

[54] *The London Gazette*, n.495 (11 August–15 August 1670).

[55] This case as explored in greater detail in Addobbati and Dyble, 'One hundred barrels of gunpowder'.

case which can only be explained by prior agreement between master and merchants. For instance, the *testimoniale* which initiated the case at the court of the *Consoli* states that that the master of the vessel 'came before' the court on 20 August 1670; but the master, Stephen Dring, only received permission from the *Magistrato di Sanità* (health board) to disembark from his vessel on 21 August. Travelling to another city to present oneself in a court of law would have been impossible without this permission. The case must therefore have been initiated by the receiving merchants rather than the master.[56] What is more, another legal dispute preserved in the Florentine state archive in the files of the lawyer Andrea Capponi demonstrates that the merchants involved in the GA of the *Alice and Francis* were later convicted of trying to defraud the customs house by trying to smuggle merchandise into the city undeclared, a thing they could only have attempted with the shipmaster's help.[57] In the case of the *Alice and Francis*, the reduction mandated by the court was a mere 5%, the lowest reduction mandated by the *Consoli* in the cases examined. It is not difficult to understand the connection between the two cases; the smuggling operation was part of a wider deal struck between the interested merchants in Livorno and the English shipmaster: they would agree to the majority of the damages he requested in return for help in avoiding customs charges. Nor is the case of the *Alice and Francis* the only concrete evidence for this kind of rubber-stamped, out-of-court settlement. In another case, that of the *Mercante Fiorentino* bound for London, the English master's request for damages—unnotarised—is even countersigned by 'Giacomo Gould', one of the receiving merchants.[58] In this case too, the master was clearly proceeding with his suit with Gould's cooperation from the start, rather than as his adversary as the rhetoric of the court case would suggest.

The decision to concede *de facto* control over GA to the 'Northern' communities in the port while maintaining *de iure* jurisdiction makes sense within the economic context of the free port and the political context of the Grand Duchy. Livorno lacked a strong native merchant corps, instead depending largely upon foreign merchants working as

[56] ASP, CM, AC, 321-30 (30 August 1670); Archivio di Stato di Livorno, *Sanità*, 68–338.

[57] ASF, *Auditore dei Benefici Ecclesiastici poi Segretaria del Regio Diritto*, 5682-40.

[58] ASP, CM, AC, 319-28 (28 April 1670).

commission agents for principals located abroad: such was the economic reality of a port of deposit.[59] The English and Dutch were the most important of these, but the English made frequent threats to decamp to other ports such as Genoa.[60] Such threats may have been empty in reality but could be used as leverage for more favourable treatment from their Tuscan hosts. Keeping hold of both these merchants and political and judicial autonomy became a central policy goal of the Tuscan state. By tacitly conceding jurisdiction over GAs to the master and the merchants, the Tuscans met both these aims. They pacified resident merchants, who were thus dissuaded from siding with their sovereign in requesting jurisdiction; at the same time, they maintained the principal of Tuscan jurisdiction, which not only maintained the Grand Duchy's prestige, but also allowed the Tuscans to use their jurisdictional powers in a situation of dire need.[61] The losers were the merchants in other ports, who had neither a say in the process nor effective representation.

It is not entirely clear how this process of unofficial delegation worked when there were considerable numbers of merchants from various different ethno-religious communities involved. In the case of the *Alice and Francis*, the majority of the merchants seem to have belonged to the English *natio*. In the case of the *Principe Enrico Casimiro*, many of the interested merchants were Jewish or Armenian, and both Jewish and Armenian representatives made official objections to the GA in the

[59] F. Trivellato, *The Familiarity of Strangers: The Sephardic Diaspora, Livorno, and Cross-Cultural Trade in the Early Modern Period* (New Haven 2009), 106; Tazzara, *The Free Port of Livorno,* 48–77; Filippini, *Il Porto di Livorno*, 1: 87, 90–91; R. Ghezzi, 'Il porto di Livorno e il commercio mediterraneo nel Seicento', in A. Prosperi ed., *Livorno 1606–1806: luogo di incontro tra popoli e culture* (Turin 2009), 324–340.

[60] Cipolla, *Il burocrate e Il marinaio*, 103–106; T.A. Kirk 'Genoa and Livorno: Sixteenth and Seventeenth-Century Commercial Rivalry as a Stimulus to Policy Development', *History*, 86 (2002): 2–17; M. Fusaro, *Political Economies of Empire in the Early Modern Mediterranean: The Decline of Venice and the Rise of England 1450–1700* (Cambridge 2015), 95; on the growing importance of Northern shipmasters in Genoa, and in the Mediterranean in general, see Luisa Piccinno's contribution in this volume; on the importance of commercial institutions like Average for commercial competition between port cities see Sabine Go's essay in this volume.

[61] A. Addobbati, 'Until the Very Last Nail: English Seafaring and Wage Litigation in Seventeenth-Century Livorno', in Fusaro et al. eds., *Law, Labour and Empire*, 43–60, at 49–51; in the same volume see also D. Pedemonte, 'Deserters, Mutineers and Criminals: British Sailors and Problems of Port Jurisdiction in Genoa and Livorno During the Eighteenth Century', 256–271.

form of exceptions and a request that the assessor—a legal expert attached to Pisa University—be involved in the case. In this case, the reduction offered in the judgement of the *Consoli* was very large: a 57% reduction of the master's original request. Perhaps these official interventions were made by the Jewish and Armenian communities to prevent their being cut out of the process; perhaps they were a negotiating tactic to persuade the master to accept a lower total. Sometimes, then, resolution was arrived through a mixture of formal acts and informal discussion outside of the courtroom, even if Northern masters do seem to have enjoyed a greater degree of autonomy in this respect.[62]

Regardless of the extent to which the GA had been presented to the *Consoli* as a *fait accompli*, the result of this Tuscan approach towards Northern masters was an abnegation of responsibility: everyone could blame everyone else for the outcome. When ships from England or the Netherlands touched in Livorno it was rarely as the voyage's final destination; Livorno was an intermediate stop on the way to the Levant, North Africa, or some other Mediterranean destination. Those who were negotiating these sorts of GA were not those who were directly interested in the cargo but rather commission agents, rewarded with a percentage of each transaction they undertook on behalf of their principals. Masters and the court itself were insulated from the dissatisfaction of principals by the agents resident in the port who had benefitted from negotiating the GA; the agents could excuse themselves with reference to the decision of the court. They most likely disassociated themselves from the process, presenting the imposition as an arbitrary and unavoidable injustice on the part of the *Consoli*. This helped to undermine faith in the Tuscan authorities. Every player needed to protect his individual reputation, of course, and this imperative must have acted as a brake on repeated or egregious abuse: but when Livorno's reputation as a 'free port' renowned for generosity towards those who trafficked there clearly preceded it, those abroad were willing to believe that it was the *Consoli* who were in the wrong.[63]

The strength of this system was that existing networks could be used to co-ordinate an inherently international procedure in a world where

[62] See Marta García Garralón's contribution in this volume for similar conflict resolution practices.

[63] L. Lillie, 'Commercio, cosmopolitismo e modelli della modernità: Livorno nell'immaginario inglese a stampa, 1590–1750' in Addobbati and Aglietti eds., *La Città delle Nazioni*, 337–357.

communication was difficult and slow. The unavoidable weakness was that it encouraged an abnegation of responsibility. While masters had to maintain good relationships with the factors, and factors had to maintain good business relations with their correspondents, middlemen were always less likely to contest a demand than the merchants ultimately footing the bill. The suggestion of Finch's letter, that the 'principal merchants' should have been able to object, was nevertheless unworkable on a practical level, with information flows being far too slow to contemplate such a cumbersome back-and-forth, and masters waiting in port while time-sensitive cargoes spoiled in warehouses. As so often was the case in early modern long-distance trade, finding a trustworthy agent was the best one could hope for.[64]

Conclusion

GA relied on cooperation across large distances, but this was cooperation without trust. It was necessary to recognise the decisions made in other jurisdictions because the process was inherently transnational. The natural propensity of GA was to favour ship interests because this side enjoyed advantages in both information and coordination, and it is thus no surprise that concerns were periodically raised about malpractice. In a way then, Finch's complaints about Average to the Grand Duke have a universal quality to them, and the complaints of the London merchants may not be unfamiliar to the modern-day Average adjuster. If the high degree of blind trust and cooperation which was required led to a certain degree of corruption and leniency towards masters, this was to a large degree inevitable if the system was to function at all. In the midst of all the squabbling, it should be remembered that GA was ultimately 'a good thing'. It allowed masters to take positive action to avoid greater damage without fear of reprisal while ensuring a more even distribution of unforeseen costs across the trading community, complementing the work of premium insurance. The result of less generous procedures from a business point of view would have been higher upfront costs in the form of freight charges, a possible brake on commercial growth. That said, the Tuscan authorities were indeed manipulating GAs, both in doctrinal and procedural terms, to best suit their own political economy.

64 Trivellato, *The Familiarity of Strangers*, 153.

This political economy did not seek to deny the multilateral nature commerce, but rather used GA to leverage that same quality in order to defend against the aggressive unilateral policies of more powerful nation-states. The language of John Finch's letter suggests that GA was under the direct control of Princes, who by their benevolent laws protected the commerce of their subjects. Its vague references to the King of England's laws on the subject suggest an important role for sovereign law and sovereign intervention in GA's operation—all this despite the fact the most important normative texts concerning Averages at this point were not royal collections, but collections of customary law, the most important in the Mediterranean being the *Consolat de Mar*.[65] Here, we can clearly perceive the influence of that phenomenon which Istvan Hont, following David Hume, labelled the 'Jealousy of Trade'.[66] To this way of thinking, commercial success was central to national greatness and survival and state power should be brought to bear to ensure it. At the root of these princely pretentions over GA was a desire to assert political sovereignty over economic forces.

In reality, the Tuscan use of GA was effective precisely because it reflected the interconnected nature of the maritime economy. In seeking to protect the port of Marseille, the French *cottimo* tax was in fact harming the interests of French subjects in Marseille and in Livorno; sharing the costs via GA merely made sure of this fact. By conceding tacit jurisdiction to the English merchants inside the port, moreover, the Tuscans exploited the fact that the interests of English subjects in the port, English national consuls, the London merchants and the English state were not necessarily aligned. English merchants in Livorno relished the autonomy they were offered and did not necessarily welcome the prospect of English consular jurisdiction.[67] It should be remembered

[65] John Finch to Cosimo III, ASF. MM, 358-17 (4 February 1671). On the importance of the *Consolat de Mar* as a normative source see O. F. Robinson, T. D. Fergus, and William M. Gordon, *An Introduction to European Legal History* (Abingdon, 1985), 158; Addobbati, *Commercio, rischio, guerra*, 117–118; 225. See also the contribution of Antonio Iodice in this volume.

[66] I. Hont, *Jealousy of Trade: International Competition and the Nation-State in Historical Perspective* (Cambridge, MA 2010).

[67] Marta García Garralón likewise finds that the consular court was not necessarily the preferred forum for resolving Average cases in Seville, see her contribution to this volume.

that, when the French attempted to enforce their own consular jurisdiction in Livorno in 1713, it was the concerted resistance of the French merchants in the free port that ended the attempt.[68] By allowing English merchants and masters to negotiate their GAs, the Tuscan state not only helped placate those merchants but prevented them from siding with their own states against the Grand Duchy. GA was not so much an active strategy to attract traffic, as Finch had suggested, but a defensive weapon; the ideal weapon, in fact, for a weak state seeking to defend its economic and political advantages over determined rivals.

[68] M. Aglietti, *L'istituto consolare tra Sette e Ottocento: Funzioni istituzionali, profilo giuridico e percorsi professionali nella Toscana granducale* (Florence 2012), 43.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

GA Adjustments in Amsterdam: Reinforcing Authority Through Transparency and Accountability (Late Sixteenth–Early Seventeenth Century)

Sabine Go

Introduction

'…[B]y various Merchants [it] has long been requested that the disputes of [General] Average same as Insurance by certain Commissioners should be decided, and various [General] Averages by Persons made has by

The research for this essay was conducted thanks to funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and Innovation Programme ERC Grant agreement No. 724544: *AveTransRisk—Average—Transaction Costs and Risk Management during the First Globalization (Sixteenth–Eighteenth Centuries)*. The author would like to thank Maria Fusaro, Gijs Dreijer and Giovanni Ceccarelli for helpful comments on earlier versions of this essay.

S. Go (✉)
Vrije Universiteit Amsterdam, Amsterdam, Netherlands
e-mail: sabine.go@vu.nl

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_14

experience failed…'.[1] With this introduction in December 1598, the Amsterdam municipality formalized the expansion of the responsibilities of the Chamber of Insurance by adding General Average (GA) disputes to its jurisdiction.[2] Apparently, the handling of GA claims had led to disputes and discord, and thus, as of then, the Commissioners of the Chamber of Insurance would also adjudicate GA claims and disputes.[3]

In this essay, I will focus primarily on GA procedures in Amsterdam in the late sixteenth and early seventeenth centuries.[4] This period was critical for the development of these procedures in the rapidly emerging mercantile centre of Amsterdam. This essay is based on research of a manuscript, the Statute Book of the Chamber of Insurance and Average (henceforth: The Chamber), of which I will discuss the regulations it contains, the clarifications of the rules and the Chamber's judgements and accompanying calculations. This manuscript is quite unique as it combines regulation and the enforcement of the rules and municipal laws. It was most likely compiled in the early 1620, a few decades after the Chamber's formal establishment. What was the objective of the Amsterdam authorities when they ordered the compilation of this manuscript? What was the significance of this manuscript for the Chamber and GA adjudications? With this essay, I aim to contribute to our understanding how institutional development took place in the early modern period.

As stressed by Douglass North, institutions and institutional development have proven pivotal for economic growth—some institutions

[1] Nederlands Economisch-Historisch Archief (Netherlands Economic History Archive, Amsterdam, hereafter NEHA), Bijzondere Collecties (BC) 277, Archief College van de Commissarissen van Assurantie (1598–1621) folio (f.) 27r. {Translation by Sabine Go}.

[2] The first reference to General Averages and the Chamber was dated 16 September 1598, NEHA, BC 277, f. 29r. For a definition and explanation of General Averages, see Maria Fusaro's contribution in this volume.

[3] The first formal reference to the name Chamber of Insurance and Average dates back to an alteration of 4 December 1606: H. Noordkerk, *Handvesten ofte privilegiën ende octroyen mitsgaders willekeuren, costuimen, ordonnantiën en handelingen der stad Amsterdam*, I (Amsterdam 1748), 656.

[4] For more on the adjudication of insurance disputes, see S. C. P. J. Go, 'On Governance Structures and Maritime Conflict Resolution in Early Modern Amsterdam: The Case of the Chamber of Insurance and Average (Sixteenth to Eighteenth Centuries)', *Comparative Legal History*, 5/1 (2017): 107–124.

will hamper economic growth whereas others will advance trade, transport and economic development.[5] However, the process of institutional development is not linear, but erratic and both the pace and direction vary—per country, per city or per industry.[6] Oscar Gelderblom has shown that institutional development in the pre-modern Low Countries was fostered by competition between commercial centres, like Bruges, Antwerp and Amsterdam. Early modern merchants were known to be highly mobile, they would easily move from one location to another if the commercial possibilities and conditions were favourable. Cities were, as Gelderblom argued, aware of the tendency of merchants to move their business and belongings to greener pastures, and were determined to avoid a pre-modern capital and brain drain. Creating an efficient commercial infrastructure was considered crucial to attract new merchants to cities and to prevent merchants from leaving to set up shop elsewhere.[7]

An important issue of doing business in early modern times was related to the possibility of contract enforcement. Did a city's infrastructure include legal institutions that were impartial, affordable and easily accessible?[8] Amsterdam became an important destination during the last quarter of the sixteenth century, especially for many merchants fleeing Antwerp, the commercial centre that quickly lost its dominant position due to political unrest.[9] The burgomasters of Amsterdam were well aware of the importance of creating the 'right' institutions, in particular a legal system that would guarantee impartial, expert and quick justice. One of the city's initiatives was to establish the Chamber of Insurance, which would adjudicate disputes relating to the quickly expanding, and potentially very profitable, marine insurance market. This was a novelty, as beforehand marine insurance issues were usually handled by consular

[5] D. S. North, *Institutions, Institutional Change and Economic Performance* (Cambridge 1990); see Ron Harris' essay in this volume.

[6] North, *Institutions, Institutional Change*; A. Greif, *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade* (Cambridge 2006).

[7] O. Gelderblom, *Cities of Commerce, the Institutional Foundations of International Trade in the Low Countries, 1250–1650* (Princeton 2013).

[8] Gelderblom, *Cities of Commerce*.

[9] Rotterdam also became a safe haven for many merchants; on this O. Gelderblom, *Zuid-Nederlandse kooplieden en de opkomst van de Amsterdamse stapelmarkt (1578–1630)* (Hilversum 2000).

courts or the city's principal court, the Eschevin Court (the *Schepenbank*).[10] Less than a year after its establishment, GA cases were added to the court's jurisdiction. In spite of this, it seems that even after a few decades the Chamber's authority had to be reinforced—and this is where the Statute Book comes into play.[11]

I will argue that the Statute Book of the Chamber of Insurance and Average was part of the city's commercial strategy, the objective being the reinforcement of the Chamber's authority and jurisdiction and promoting its reputation by advancing its consistency and expertise in insurance and GA cases. In the following sections, I will first give a short introduction to the Chamber of Insurance, its foundation, authority and procedures, followed by a study of the GA regulations and judgements in the Statute Book. I will then discuss the importance of the Statute Book within a broader setting and conclude with some remarks.

GA and the Amsterdam Chamber of Insurance and Average

Marine insurance and GA are both tools to manage the risks of long-distance trade.[12] Both concepts have advanced maritime trade and transport and, as a result, they were and often still are 'lumped' together, even though the concepts are rather different. Marine insurance is the transfer of risk to a third party for a set price (the premium), whereas GA is an instrument providing risk sharing based on mutuality. GA and insurance only interact when a merchant is insured and his underwriters are

[10] See Gijs Dreijer's contribution in this volume.

[11] Gelderblom, *Cities of Commerce*; Go, 'On Governance Structures'.

[12] There are, of course, other methods to manage the risks inherent to long-distance maritime trade, like bottomry, cooperatives and self-insurance. See for more on marine insurance: V. Barbour, 'Marine Risks and Insurance in the Seventeenth Century', *Journal of Economic and Business History*, I (1928/1929): 561–596; K. Davids, 'Zekerheidsregelingen in de scheepvaart en het landtransport, 1500–1800', in J. van Gerwen and M.H.D. van Leeuwen eds., *Studies over zekerheidsarrangementen, risico's, risicobestrijding en verzekeringen in Nederland vanaf de Middeleeuwen* (Amsterdam 1998); F.C. Spooner, *Risks at Sea: Amsterdam Insurance and Maritime Europe, 1766–1780* (Cambridge 1983); H. L. V. de Groote, *De Zee-assurantie te Antwerpen en te Brugge in de zestiende eeuw* (Antwerpen 1975); J. P. van Niekerk, *The Development of the Principles of Insurance Law in the Netherlands from 1500–1800* (Johannesburg 1998); S. C. P. J. Go, *Marine Insurance in the Netherlands 1600–1870: A Comparative Institutional Approach* (Amsterdam 2009).

required to pay for his contribution in the GA damages.[13] At the end of the sixteenth century in Amsterdam, GA was a generally accepted default rule, a concept acknowledged by ship-owners and merchants. Nonetheless, there were many discussions regarding the limitations of the concept, the method of valuation of the assets, the interpretation of specific regulations and the effects for all those concerned. At the same time, there were also concerns about the quickly expanding insurance industry which had emerged in the mid-sixteenth century.[14] Merchants appealed to the city authorities to regulate the insurance market, which was characterized by the intricate nature of the transactions and was prone to fraud. Until the end of the sixteenth century, the principal court of the city, the Eschevin Court, handled insurance disputes, but apparently the number and complexity of these cases had greatly increased and swamped the *Schepenbank*.[15] Therefore, when in 1598, the city promulgated the first municipal insurance ordinance ('*Ordonnantie op 't Stuk van de Asseurantie*'), it also established a specialized court, the Chamber of Insurance, to adjudicate insurance cases.[16] By the end of that same year, again at the specific request of various merchants, the city added the adjudication of General Average disputes to the responsibilities of the Chamber's Commissioners, as stated in the quote above. GA was considered, as marine insurance, a complex construct, and it was acknowledged that the adjudication of conflicts relating to either of these concepts required specialized knowledge and experience.

The Chamber was located prominently in City Hall and the Chamber's three Commissioners, who were assisted by a Secretary and a Messenger, held court at the same days as the Eschevins. The Court's judgements held the same legal authority as those of the Eschevins and could be enforced, if necessary, by the city's Sheriff.[17] The judgements could be

[13] See Ron Harris' essay in this volume; Van Niekerk, *The Development of the Principles*, 60–79.

[14] Van Niekerk, *The Development of the Principles*; Go, *Marine Insurance*.

[15] Van Niekerk, *The Development of the Principles*, 207–208.

[16] For more on the Chamber of Insurance and Average and its importance for the marine insurance market in Amsterdam, see Go, 'On Governance Structures' and Van Niekerk, *The Development of the Principles*, 207–219.

[17] For more on the Amsterdam municipality: M. Hell, 'De oude Geuzen' in W. Th. M. Frijhoff and M. Prak eds., *Geschiedenis van Amsterdam II-2 zelfbewuste stadstaat 1650–1813* (Amsterdam 2005), 241–248; J. E. Elias, *De Vroedschap van Amsterdam 1578–1795*,

appealed at the Eschevin Court, followed by the *Hof van Holland and West-Friesland* and finally at the *Hooge Raad*.[18] It is important to note that even after the establishment of the Chamber, GA could still be settled by 'good men'—as was common before 1598. However, after 1598, GA adjustments made by anyone other than the Commissioners could be amended or overruled by the Chamber.[19]

The Chamber's Commissioners were often prominent merchants rather than legal experts, a position as Commissioner (*Commissaris* or *Assurantiemeester*) was considered honourable. The *Assurantiemeesters* most probably did not accept the position for financial reasons as they received only a modest compensation for their efforts.[20] Various renowned names are among those who have served as Commissioners. Gerrit Bicker, for example, was Eschevin and would go on to become one of the city's mayors. He was also one of the founders of, and served on the executive board of the Dutch East India Company (VOC). Commissioner Frans Oetgens van Waveren, who was known to be extremely wealthy, also served as Eschevin and would also later become mayor. Gilles Jansz Valckenier was part of the executive board of the VOC and he served on the Admiralty.[21] On average, Commissioners held their position for six (usually consecutive) years and they were never all replaced in the same year, in order to prevent the loss of tacit knowledge and to promote stability.[22] It was often presumed that the Chamber did not become active until its formal Charter had been confirmed in 1612 by the Estates of Holland (*Staten van Holland*); however, the Statute Book is testimony

2 vols (Amsterdam 1963); J.E. Elias, *Geschiedenis van het Amsterdamse Regentenpatriciaat* (The Hague 1923); A. Porta, *Joan en Gerrit Corver: De politieke macht van Amsterdam (1702–1748)* (Assen 1975), 23–26; Go, *Marine Insurance*, 69–71.

[18] Van Niekerk, *The Development of the Principles*, 218, 230, J. Wagenaar, *Amsterdam in zijne opkomst, aanwas, geschiedenissen, voorregten, koophandel, gebouwen, kerkenstaat, schoolen, schutterij, gilden en regeringen*, 23 vols (Amsterdam 1760–1767) II: 439; Go, *Marine Insurance*, 111–114.

[19] NEHA, BC 277, Archief Commissarissen, f. 29r.

[20] Van Niekerk, *The Development of the Principles*, 209–211; Go, *Marine Insurance*, 100–104.

[21] Elias, *De Vroedschap*, I, 102 (Oetgens van Waveren), 174 (Bicker), 411 (Valckenier); Wagenaar, *Amsterdam* II, 440–444; Go, *Marine Insurance*, 100–104.

[22] Go, *Marine Insurance*, 100–104.

to its activities as of the date of its foundation in 1598.[23] The Chamber existed until the end of the eighteenth century, when the Batavian Period indicated the end of the Republic and its institutional structures.[24]

Although both insurance and GA cases were dealt with by the same Commissioners and Secretary, in administrative terms the records of the two types of cases were strictly separated. There were separate ledgers and registers for the insurance and GA cases. The archives of the Chamber covering the period between 1598 until 1700 have unfortunately been lost, with the exception of this Statute Book, which was drawn up in the 1620s and covers both the GA and the insurance responsibilities of the court.[25]

The Statute Book of the Chamber

The Statute Book contains formal regulations, interpretations of these regulations, elucidations, examples, and judgements. The manuscript also contains a wealth of information regarding the variety of goods traded in Amsterdam, their values, the routes travelled, and the names of merchants and underwriters. In addition, it holds information concerning weather patterns, the size and make of ships, the composition of crews, the names of the Commissioners, and the formal texts of the insurance ordinance and the GA regulations (Image 1).

Although some of the information was already known through other sources, the Statute Book includes information on the handling of GA, especially on the process of adjusting in Amsterdam, which was not yet known. Whereas marine insurance was strictly regulated by the previously mentioned municipal ordinance and various adjustments and alterations, GA was not strictly regulated.[26] According to the municipality, GA cases

[23] The fact that the Chamber's Commissioners were often called upon can be derived from the references to cases in the Statute Book, on this see Go, 'On Governance Structures'.

[24] Go, *Marine Insurance*, 95–100.

[25] In the municipal archives of Amsterdam, the archives of the Chamber of Insurance and Average cover the years 1700–c.1810, Stadsarchief Amsterdam, Toegangsnummer 5061, Archief van Schout en Schepenen, van Schepenen en subalterne rechtbanken (1524–1811), Assurantiemeesters (Bank van assurantiën en avarijen) (1700–1810) (hereafter: SAA 5061, Archief Schout Assurantiemeesters) inventory numbers 2633–3050.

[26] Before the first municipal ordinance, both insurance and GA were regulated by the *Placcaten* of Charles V and Philip II. See Gijs Dreijer's essay in this volume and M.Th.

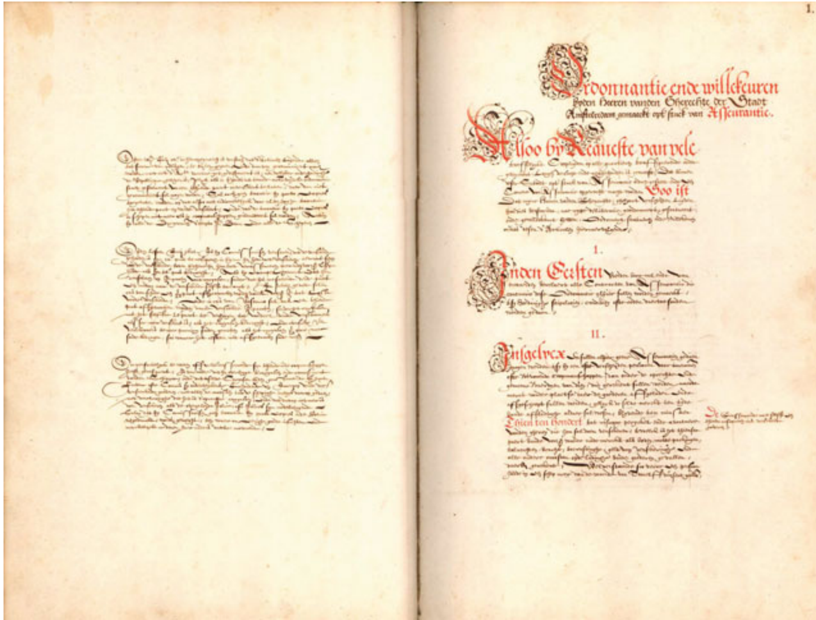


Image 1 The first insurance ordinance of 1598 of the city of Amsterdam (*Source* Manuscript Chamber of Insurance and Average, NEHA, BC 277, Archief Commissarissen, folios [ff.] 0v and 1r)

were so varied, so distinctly different, that no general ordinance would be able to regulate it. It was therefore left to the expertise of the Commissioners to assess these disputes.[27] Although having GA adjustments handled by the Chamber became an option as of September 1598, and adjustments made by arbitrators could be overruled by the Commissioners, the municipality formally added GA adjustments to the

Goudsmit, *Geschiedenis van het Nederlandsche Zeerecht* ('s-Gravenhage 1882), 205–215, 229–269; S. C. P. J. Go, 'The Chamber of Insurance and Average: A New Phase in Formal Contract Enforcement (Late sixteenth and Seventeenth Centuries), *Enterprise & Society*, 14/3 (2013): 511–543; Van Niekerk, *The Development of the Principles*, 198–207.

[27] Noordkerk, *Handvesten ofte privilegiën*, 2, 667; I. Schöffer, 'De vonnissen in averij grosse van de Kamer van Assurantie en Averij te Amsterdam in de 18de eeuw,' *Economisch-Historisch Jaarboek*, 26 (1956): 72–132, in particular 73.

Chamber's responsibilities only that December when they decreed that the Chamber was to be the court of first instance for GA cases.[28]

At first, only a few simple principles were laid out, with an emphasis on the authority of the Commissioners and the distinction between 'normal' operational expenses and damages that could be attributed to GA. For example, spent ammunition would not be admitted into GA, but was considered as a normal operating expense of mercantile trade.[29] Also, when a 'donation' was made (a ransom paid in case a ship was detained), it was only admitted into GA if this donation had been made under conditions of extreme distress. Damages due to storms or bad weather were not considered GA, and merchants were obliged to state the 'right' value of their assets.[30] In the following years, a number of further clarifications were added, including a specific stipulation regarding loading of goods on the orlop deck. Normally, this was not allowed, but for ships travelling on the Baltic, there was an exception: If jettisoned goods had originally been loaded on an intermediate deck (called the *Coebrugghe*), these too would be accepted in GA as this deck was easily accessible and these goods would often be the first to be jettisoned.[31]

Starting on folio 47 (see Image 2) guidelines regarding GA were given, which consisted of thirteen articles and were meant to guide the master's conduct when disaster loomed.[32] These guidelines were clearly inspired by the *Placcaat* of 1563, for example, the requirement that masters needed to consult the merchant before jettisoning goods, cutting ropes or anchors or deliberately stranding the ship.[33] If the merchant did not agree with the master's intended actions, the master could still take action—providing the majority of his crew agreed.[34] In case part of the cargo

[28] NEHA, BC 277, Archief Commissarissen, ff. 27r, 29r.

[29] NEHA, BC 277, Archief Commissarissen, ff. 27r, 29r; see Gijs Dreijer's essay in this volume for more on the *Placcaat* of 1563.

[30] NEHA, BC 277, Archief Commissarissen, ff. 29r, 30r.

[31] Loading on this deck was not always considered safe and was thus often subject of debate. NEHA, BC 277, Archief Commissarissen, ff. 29r, 30r.

[32] The term used in the manuscript is *Schipper* who acts as a representative of the ship-owner(s) or owns the ship or a part of the ship himself.

[33] NEHA, BC 277, Archief Commissarissen, f. 48r; Goudsmit, *Geschiedenis van het Nederlandsche Zeerecht*, 238; also see the contribution of Gijs Dreijer in this volume.

[34] Many of these stipulations can already be found in the Ordinance of 1563 and in Weytsen's standard work: Q. Weytsen, *Een Tractaet van Avarien, dat is: gemeene*

had to be jettisoned to save the ship and the remaining goods, the master should first jettison cargo that was highest in weight and lowest in value.[35] Other stipulations declared that in case a master or a member of the crew was killed, wounded or maimed while defending the ship and goods, the related expenses (including that of his burial) would be accepted into GA.[36] The regulations end with stipulations regarding pilot's expenses and the requirement that masters needed to consult with their crew before setting sail.[37] Finally, theft of goods by a master or his crew would be punishable by death.[38] These thirteen articles were meant to guide the master (and his crew) to make choices that would minimize the total damages of incidents; these were precautionary stipulations, not actual GA regulations.

These guidelines for masters were followed by a section titled *Memorie*—explaining the Chamber's procedures when a case was brought before them. In the space of five folios, a sort of 'manual' was provided for those not familiar with GA procedures and requirements (Image 3).[39]

The *Memorie* first states the basic requirements when a case is brought before the Court: One should provide proper evidence, including the statements of two trustworthy witnesses who will confirm the master's account of the incident and the surrounding circumstances. A specification of the damages should be given and supported with documents. Merchants were required to state the quantity, quality and value of the goods; the ship was to be valued as it was before the incident took place.[40] The Commissioners would then assess, based on the account of the incident and the evidence provided, whether this was indeed a

contributie van de koopmanschappen ende goederen in den schepe bevonden om te helpen dragen, 't verlies van eenige kooplieden ofte schippers goeden, gewillighlijck gebeurt om lijf, schip, ende goedt te salveren, 1663; NEHA, BC 277, Archief Commissarissen, f. 47r.

[35] NEHA, BC 277, Archief Commissarissen, f. 47r.

[36] Ibid.

[37] If the expense of a pilot did not exceed 6 Flemish pounds (or 36 guilders), it was considered to be a normal operational expense, payable by the merchant. If it exceeded 6 Flemish pounds, it could be added to GA damages. NEHA, BC 277, Archief Commissarissen, ff. 50r, 51r.

[38] A master or his crew would be quartered. Anyone else would be hanged. NEHA, BC 277, Archief Commissarissen, f. 51r.

[39] NEHA, BC 277, Archief Commissarissen, ff. 52r–54r.

[40] NEHA, BC 277, Archief Commissarissen, f. 52r.

Image 2 The first folio of the stipulations to guide the conduct of a ship's master (*Source* Manuscript Chamber of Insurance and Average, NEHA, BC 277, Archief Commissarissen, f. 47r)

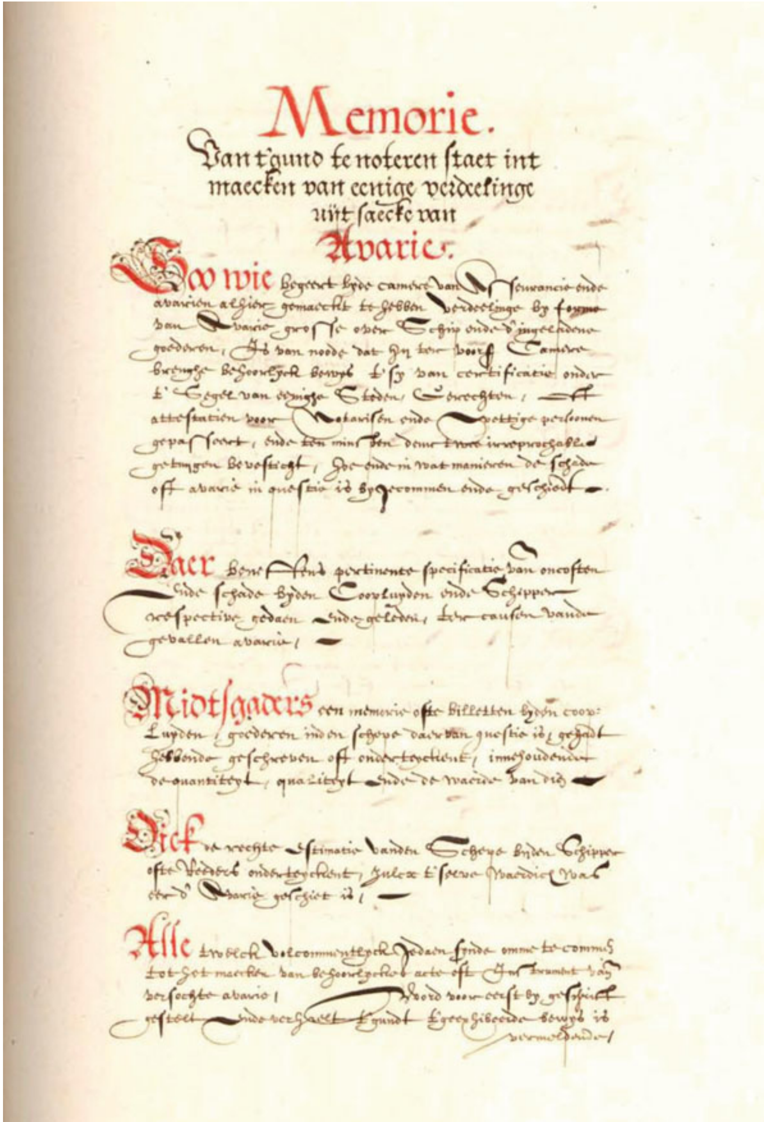

Memorie.
Van t'gunt te noteren staet int
maecken vant eenige verdeelinge
uijt saecke van
Avarie.

Image 3 The first folio explaining the procedure of GA adjustments at the Chamber of Insurance and Average (*Source* Manuscript Chamber of Insurance and Average, NEHA, BC 277, f. 52r)

case which fell under General Average. If the case met the requirements for GA, the damages suffered by both merchants and master would be assessed. The Commissioners would review every item of damage claimed and would either accept the item and the claimed amount (*approberen* or *passeren*), accept the item but for a lower amount (*diminueren*), or reject the damages as GA (*royeren*). The changes in value and rejections had to be written down in the margins. In case a substantially large amount was either reduced or totally rejected, the Commissioners were required to give a short explanation of their decision.[41] The 'manual' then specified that the Commissioners' fee and the wages of the Messenger were to be added to the damages to determine the amount that had to be distributed among all parties involved.

The next step was to calculate the total value of the enterprise, which consisted of the value of the ship or that of the freight fees and that of the cargo.[42] To calculate the so-called *omslag* (GA factor), the Commissioners would divide the total damages by the total value of the enterprise. Finally, the contribution per merchant and ship-owner was calculated by multiplying the GA factor with the value of the merchant's or ship-owner's asset (Image 4).[43]

After the guidelines and the explanation of the procedures in the *Memorie*, the creators of the manuscript added the texts of various judgements to exemplify the regulations and procedures. These judgements, the *dispaches*, had a formal legal status. Although the term, *dispaches*, is still in use in contemporary GA adjustments, the *dispaches* from the Chamber were formal judgements, whereas currently the term refers to the final report of the adjustment process.[44] The texts in the Statute Book, which include the assessment of the damages, the valuation of the enterprise and the calculation of the contribution, are copies of original judgements. References were added to the original registers where the

[41] NEHA, BC 277, Archief Commissarissen, ff. 53r and 53v.

[42] According to Weytsen, the total value of a journey or enterprise consisted of three components: the value of the ship, the value of the freight fees and the value of the merchandise. However, it was general practice to only take either the value of the ship or the value of the freight in order to calculate the contribution of the ship-owners. Weytsen, *Een Tractaet van Avarien*.

[43] NEHA, BC 277, Archief Commissarissen, f. 53v.

[44] Schöffer, 'De vonnissen in avarij-grosse', 82.

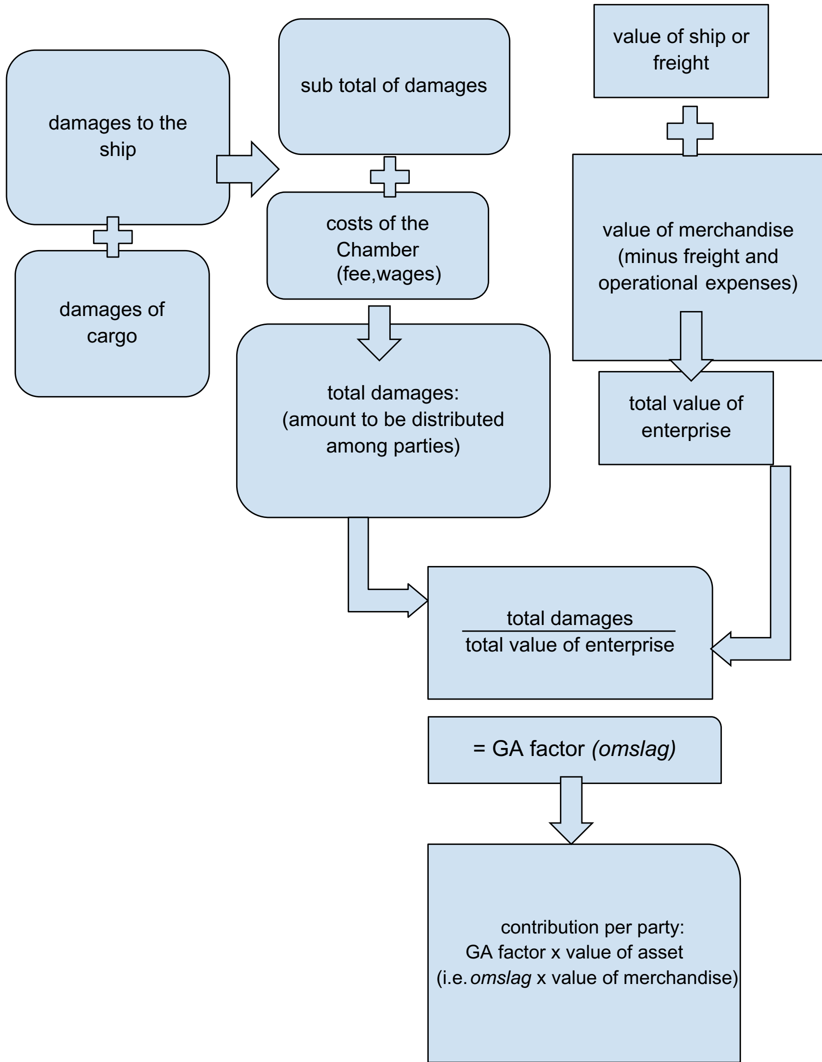


Image 4 Process of calculating GA contributions

judgements could be found.[45] All of the cases included in the Statute Book seem to have been chosen to highlight or explain a specific part of the regulation or procedures.

For example, a case from 2 March 1602 was meant to emphasize the voluntary nature of the GA action: a master tried to claim the loss of wine as GA. According to the crew, the master of an enemy ship had forcibly taken the wine. The Commissioners refused to accept this case as GA, as the wine had been taken and this did not constitute a voluntary act. In spite of this, the master was required to pay the Chamber's fees.[46] A case from 20 December 1600 has clearly been added due to its complex nature. There were in fact two incidents in which cargo had been jettisoned. The master had been forced to sell part of the remaining cargo in the port of refuge in order to re-equip the ship for the remainder of the journey.[47]

Another case, relating to a ship travelling eastbound, was meant to clarify the valuation of the merchandise: On 27 May 1603, master Heye Hiddesz from the town of Harlingen requested GA adjustment at the Chamber. Hiddesz's ship got into trouble during a heavy storm *en route* from Danzig to the Baltic. Not far from its destination of Riga, they had to cut the main mast in order to salvage the ship and the cargo she was carrying. First mate, Andries Hendricxz, and Hendrick Eysbrechts, boatswain, acted as witnesses and confirmed their master's account of the events which was recorded in the *dispach*. According to the master, the damages of this deliberate act (and thus GA) were 375 guilders (Image 5).[48]

As required, the ship's master gave a detailed report about the incident and he specified the damages. The calculation of the final contribution per party depended on various factors. As explained in the *Memorie*, the Commissioners first had to decide whether the damage claimed was indeed GA: was a rope cut deliberately or did it accidentally break during a storm? Of course, all the damages had to be assessed. For example, what was the value of the rope, considering its age and 'normal wear and tear'? In these cases, the Commissioners referred to a table with

[45] NEHA, BC 277, Archief Commissarissen, for example f. 58r. Unfortunately, the registers to which the Statute Book refers have all been lost.

[46] NEHA, BC 277, Archief Commissarissen, f. 61v.

[47] Ibid., ff. 58v and 59r.

[48] Ibid., ff. 58r.

Image 5 The Adjustment of the incident with the ship commandeered by Hidde Hiddesz (*Source* Manuscript Chamber of Insurance and Average, NEHA BC 277, Archief Commissarissen, f. 58r)

standard lengths of rope (based on the size of ship) and the subsequent value of the rope. For incidents that involved different foreign currencies, the Chamber used standard rates to calculate the corresponding value in guilders (Image 6).[49]

The Commissioners decided this case was indeed GA. However, they adjusted the damages as claimed from 375 guilders to 255 and, as required, they added the lower value in the margin of the text of their judgement.[50] To determine the total contributory value, the goods that were transported had to be valued. In most North-European ports, goods were valued at the selling price of the products, thus the price of the goods at the port of destination.[51] In Amsterdam, a different valuation was used, based on the location of the incident. If the incident took place during the first half of the journey, the purchase price (i.e. the price of the products at the port of departure) was taken to value the goods.[52] If the incident happened after the mid-way mark of the journey, the Commissioners would use the price at the market of destination, the selling price. In that case, the freight fees payable to the master were deducted. Of course, this latter value would mean that a profit margin was incorporated in the value.[53] The Amsterdam regulations even specifically stated that with incidents on 'this side of the Sound', goods were to be valued at the sales price, whereas accidents on the other side of the Sound, the purchase price would be used in the calculations.[54] This specific stipulation may also be the reason why this relatively simple case was added to the manuscript. This ship was in fact travelling eastward with the cargo. In spite of the incident taking place 'on the other side of the Sound', the goods were valued at the selling price, the market price in Riga.

Another case shows how the Commissioners have adjusted the damages as claimed by the plaintiff. In this case from 1601, the Commissioners were presented with a long list of damages: They adjusted the

[49] NEHA, BC 277, Archief Commissarissen, ff. 35r–35v.

[50] NEHA, BC 277, Archief Commissarissen, f. 58r.

[51] Schöffer, 'De vonnissen in averij grosse', 80; Van Niekerk, *The Development of the Principles*, 73–74.

[52] This practice was also common in some Italian ports. Schöffer, 'De vonnissen in averij grosse', 80.

[53] NEHA, BC 277, Archief Commissarissen, f. 52v.

[54] The Sound (Sont) is about half-way between the Dutch Republic and many Baltic ports. NEHA, BC 277, Archief Commissarissen, f. 52v.

Memorie.

Een cabel lanck 110 vadem dick 7 duym, weeght omtrent – 800 pondt.
Een cabel lanck 110 vadem dick 8 duym, weeght omtrent – 1000 pondt.
Een vande selve lenghde dick 9 duym, weeght omtrent – 1250 pondt.
Een vande selve lenghde dick 10 duym, weeght omtrent – 1500 pondt.
Een vande selve lenghde dick 11 duym, weeght omtrent – 1800 pondt
Een vande selve lenghde dick 12 duym, weeght omtrent – 2100 pondt.
Een vande selve lenghde dick 13 duym weeght omtrent – 2450 pondt.
Ende een vand' selve lenghde dick 14 duym weeght omtrent – 2800 pondt.

Nota.

Dat een half versleten touw omtrent een derde part slimmer is als nieuw, –.

Tot een schip van 60 lasten behoeft men ordinaris tot alle syn loopende wandt – 8 schippont –
Tot een schip van 70 lasten – 9 schippont –
Tot een schip van 80 lasten – 10 schippont –
Tot een schip van 90 lasten – 11 schippont –
Tot een van hondert 12 schippont –.
Tot een van 120. 14 schippont –.
Tot een van 150. 17 schippont –.
Ende tot een schip van 200 lasten 20 schippont.

Een schip van 80 lasten behoeft als volgt 10 schippont te weten totte groote mast mette besaen ses schippont. Ende tot de fockemast ende boegh-spriet vier schippont, De andere naer advenant –.

Image 6 Table of standardized measure of rope per type of ship (*Source* Manuscript Chamber of Insurance and Average, NEHA BC 277, Archief Commissarissen, f. 55r)

original amount (without stating the reason) from 386 guilders, 18 nickels and 0 pennies to 281 guilders and 40 cents (Image 7).[55]

The second part of the numerical handling of GA adjustment was to determine the value of a particular maritime enterprise. Especially for those parties that did not suffer a loss as a result of the incident, it was tempting to downplay the value of their assets as that would result in a lower contribution to the total GA damages. All parties were required to supply the Chamber with documents confirming the quality, quantity and value of the goods. If the Commissioners questioned the given values, they could demand the involved party (usually a merchant) to confirm the value under oath. If a merchant refused or simply did not show up (a so-called default), he would receive a fine. After three defaults, the Commissioners would rule regardless. In a case from the eighteenth century, a merchant refused to appear before the Court to confirm the value of his goods under oath. The Commissioners increased the value of 5,260 guilders (as originally provided by the merchant) to no less than 20,000 guilders. This meant of course that the contribution of this merchant in the total GA adjustment increased considerably.[56]

The GA contribution of the ship-owner was based on the value of either the ship itself or the total freight fee it received as payment for transporting the cargo.[57] It was up to the merchants to choose from the two values as given by the master. They usually chose the value of the ship as that most commonly exceeded the value of the freight fees. And, as Ivo Schöffer has argued: 'working with the value of the freight was arithmetically very complex' and this way the complexity was avoided.[58]

When the amount of damages and the value of the enterprise were determined, the Commissioners would add the expense of the Chamber's rulings, which consisted of two parts. The fee of the Commissioners and Secretary was based on the value of the GA case: 2 of value were added.

[55] NEHA, BC 277, Archief Commissarissen, f. 62r.

[56] J. G. Nanninga, *Bronnen tot de Levantsche Handel*, 6 vols (The Hague 1964), 4: 534.

[57] See note 42. It was not until the nineteenth century that both the value of the ship and the value of the freight were taken to calculate the master's contribution to GA damages.

[58] There is one example in the manuscript in which not the value of the ship but the value of the freight was chosen for the GA calculations by the merchants. NEHA, BC 277, Archief Commissarissen, f. 59v; Schöffer, 'De vonnissen in averij grosse', 79–82.

Image 7 Damage assessment and reduction of the final amount (*Source* Manuscript of the Chamber of Insurance and Average, NEHA, BC 277, Archief Commissarissen, f. 62r)

The wage of the messenger was based on the number of peoplenickels per 100 guilders he had to visit and inform of the procedure. Often, an additional amount was added 'for the poor' to round of the total to an amount that would make the final calculations easier. Then, the damages were divided by the total value of the enterprise and multiplied by f 100.

The *dispaches* would be concluded with a statement along these lines: 'Commissioners find that each hundred guilders is to contribute the sum of 9 guilders, 3 nickels, 2 pennies'. The total of the contributions was repeated, to show that the arithmetic was correct and that no party benefited at the expense of another.

Reinforcing the Authority of the Chamber

The Statute Book of the Chamber of Insurance is an important manuscript, an expensive production which was undoubtedly commissioned by the municipal authorities or the Chamber's Commissioners. Why was this manuscript commissioned? After all, by the time the manuscript was created in the early 1620s, the Chamber had been adjudicating on insurance and GA cases for more than two decades. Moreover, in 1612, it had received its official Charter from the Estates of Holland (*Staten van Holland*). What then was the objective of the authorities to compile this manuscript in the 1620s?

As mentioned above, the establishment of the Chamber of Insurance was a relative novelty. In the southern Low Countries, marine insurance disputes were adjudicated by consular courts or a city's principal court.[59] In Amsterdam, the authorities chose a different structure: they established a subsidiary court, specialized in these specific issues and disputes—a court that was accessible to all, regardless of their background, religion or nationality. The choice for such a court of generalized jurisdiction, that was accessible to all rather than a particularized institution that was only accessible to merchants of a certain background or guild members, meant

[59] For more on the sixteenth century *Placcaten*, see Gijs Dreijer's contribution in this volume; Go, 'On Governance Structures'.

a new phase of contract enforcement.[60] With this new subsidiary court, the Amsterdam municipality's objective was most probably to control the quickly expanding insurance business, to curb possible frauds and to guarantee expedient justice in case of disputes.

The municipality promoted the Chamber by emphasizing the Commissioners' impartiality, their expertise and the transparency of the procedures. Apparently, the municipal authorities were worried about having overstepped their boundaries by instating the Chamber and they applied for an official Charter from the Estates of Holland in 1612. Even after having received this formal seal of approval, the manuscript was commissioned almost a decade later. Perhaps this move was motivated by developments in other cities, most notably Rotterdam. This port city, which lies south of Amsterdam, had taken Amsterdam's example and, at the request of local merchants, proclaimed an insurance ordinance and had established a Chamber of Insurance which would adjudicate both insurance and Average disputes.[61] Soon after its establishment, the Rotterdam Chamber was frequently called upon and they quickly had to convene twice per week.[62] Antwerp, which had suffered from economic decline for decades, showed an increase in its pace of recovery, especially after the end of the Twelve Years' Truce in 1621.[63] Did Amsterdam feel threatened by the rise of a new and the re-emergence of an old

[60] S. Ogilvie, *Institutions and European Trade: Merchant Guilds, 1000–1800* (Cambridge 2011), 310–314; S. Ogilvie, "'Whatever Is, Is Right?' Economic Institutions in Pre-industrial Europe," *Economic History Review* 60/4 (2007): 649–684; Go, 'The Chamber of Insurance and Average'.

[61] Middelburg had also issued an insurance ordinance and established a Chamber in 1600. Rotterdam's ordinance was issued and its Chamber (*Kamer van Zeezaken*) founded in 1604. See, for example, L. A. E. Suermondt, 'De Oprichting van de Kamer van Assurantiën te Rotterdam', *Rotterdams Jaarboekje*, series 7/5 (1967): 209–222; Van Niekerk, *The Development of the Principles,* 220–223; Go, *Marine Insurance*; 95, n. 151 and Chapter 4; S. C. P. J. Go, 'The Amsterdam and Rotterdam Insurance Markets in the Sixteenth to the Eighteenth Century: Inertia Versus Adaptability', *International journal of Maritime History*, 23/2 (2011): 85–110.

[62] F. Kracht, *Rotterdamer See-versicherungs-Börse: ihre Entwicklung, Bedeutung und Bedingungen* (Weimar 1922), 34.

[63] Economic recovery in Antwerp started slowly in the 1590s, strengthened during the Truce (1609–1621) and directly after, see R. Baetens, *De nazomer van Antwerpens welvaart: de diaspora en het handelshuis De Groote tijdens de eerste helft der 17e eeuw*

competitor and thus feel inclined to emphasize and reinforce its position as commercial centre?

By this time, Amsterdam was benefiting from a strong marine insurance market which had expanded quickly and was now one of the pillars of the city's commercial infrastructure. Underwriting, and the capital to finance this industry, was an important part of the city's attractiveness to merchants, both local and foreign. General Average was, although a completely different concept, strongly linked to the insurance industry, increasingly so as merchants would often insure their possible contributions to GA damages.[64] In addition, GA adjustments were generally commissioned and executed in the port of destination or in the home port of the merchants or ship-owners.[65] Amsterdam actively promoted so-called forum shopping by creating efficient GA regulation and procedures that would motivate ship-owners and merchants to choose Amsterdam as the final destination of their journeys.[66] It is here that the manuscript comes into play. The municipality acknowledged the importance of impartial, expert and expedient justice. It was therefore crucial that the Chamber's judgements were consistent. The Statute Book was most probably meant as a manual, a guidebook for the Chamber's officers—for the Commissioners primarily, but probably also for the Secretary. How had previous *Assurantiemeesters* ruled in certain cases? How had they assessed the stated values, when had they declined damages that were entered into GA? By increasing transparency, standardization, and predictability, uncertainty would be reduced and thus transaction costs were reduced. What could one expect when a case would be handled by the Commissioners of

(Brussel 1976); J. Israel, *The Dutch Republic, Its Rise, Greatness, and Fall, 1477–1806* (Oxford 1998), 413.

[64] NEHA, BC 277, Archief Commissarissen; Schöffer, 'De vonnissen in averij grosse'; Van Niekerk, *The Development of the Principles*, 76–80.

[65] The case mentioned in par 3 regarding the ship commandeered by Heye Hiddesz, which was *en route* to Riga, is an example of an Average adjustment which was handled in the port where the owners of the merchandise and ship resided, NEHA, BC 277, Archief Commissarissen, f. 58r.

[66] Van Niekerk, *The Development of the Principles*, 212; Schöffer, 'De vonnissen in averij grosse', 79.

the Chamber? The manuscript was meant to educate and guide Commissioners when adjudicating insurance disputes and GA cases.[67] Rules that may have led to queries were explained with examples. Calculations were elucidated with examples.[68] Important changes made by the Commissioners to the given values of goods or ships were justified and accounted for.[69] The judgements that were copied into the manuscript all focused on or emphasized a different issue, regulation or stipulation. Standardized tables for calculating how much rope was carried by which size ship and rules about exchange rate would further advance uniformity and predictability of the Chamber's adjudications.[70]

As for the timing of the compilation of the manuscript, there may have been a more human factor at play as well: In the early 1620s, Cornelis Jansz Valckenier had been *Assurantiemeester* for two decades.[71] His fellow Commissioner, Pieter Pietersz Hasselaar, served the Chamber since 1615. The position of the third Commissioner was less stable, in 1620, Pieter Jansz Reael held the position, succeeded by Pieter Matthijsz Schrijver in 1621, who was then succeeded by Reyner Jansz Reael in 1622. Valckenier, who was 60 years old, must have realized that his service was coming to an end. Perhaps he and Hasselaar felt it prudent to record the regulations, procedures that guided their adjudications, to ensure that the Chamber's judgements would be predictable and consistent, regardless of the Commissioners who would serve at any particular time, and so to safeguard the Chamber's authority and reputation as crucial part of the city's commercial infrastructure.[72]

[67] NEHA, BC 277, Archief Commissarissen, ff. 29r, 30r, 47r–54r.

[68] Ibid., ff. 58r–69r.

[69] Ibid., ff. 53r, 53v.

[70] Ibid., f. 55r.

[71] Cornelis Jansz Valckenier, born probably in 1562, buried on 25 September 1626, Elias, *de Vroedschap*, I, 411.

[72] Pieter Pietersz Hasselaer (1583–1651) would become Eschevin, Mayor, serve on the board of the Admiralty and of the VOC, Elias, *De Vroedschap*, I, 369.

Concluding Remarks

Institutional development is erratic and varies per region, city, period and even per industry. Amsterdam created an institutional structure that was partly based on its predecessors and partly on innovation. However, the city had to convince all those involved of the value of the newly created Chamber of Insurance and Average. After all, having a dispute adjudicated by this formal subsidiary court meant additional costs (and time). So, the municipal authorities commissioned a manuscript, an early modern legal manual, advancing consistency and predictability of the adjudication of insurance disputes and GA cases. The municipality intended to convince merchants and ship-owners that it was best to bring GA adjustments (and insurance conflicts) before the Chamber. GA cases were dealt with impartially, expertly, and efficiently. The city's approach seems to have worked, as approximately 9,000 GA cases were adjudicated in the eighteenth century, in spite of the fact that GA cases could also be handled informally, most probably at a lower cost and in shorter time, by arbitrators.[73] Perhaps the perception of the Chamber by the merchants has played a role. In a study regarding the contemporary Tuna Court in Tokyo, Eric Feldman has argued that this Court, which has an official status and works according to formal regulations and procedures, is nonetheless considered as an informal method to adjust prices after a transaction.[74] It may be possible that merchants and ship-owners, accepting GA as default rule with no formal ex-ante contractual commitments, perceived the Chamber as less formal than its judicial status implied. By reinforcing the consistency and predictability of the Chamber's judgement, the Statute Book may have bolstered this perception, thereby advancing the Court's accessibility for all merchants and ship-owners and its overall effectiveness.

[73] In the same period, the Chamber dealt with approximately 2,400 insurance cases, SAA 5061, Archief Schout Assurantiemeesters, inventory numbers 2791–2805; Go, 'On Governance Structures', 122; Schöffer 'De vonnissen in averij grosse', 73–74; see also Jake Dyble's essay in this volume.

[74] E. A. Feldman, 'The Tuna Court Law and Norms in the World's Premier Fish Market', *California Law Review* 94 (2006): 313–369.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

'The Honour of Giving My Opinion': General Average, Insurance and the Compilation of the *Ordonnance de la marine* of 1681

Lewis Wade

The *Ordonnance de la marine* of 1681 marked—at least in theory—a pivotal step forward in enshrining the unfettered maritime authority of the French state. Spearheaded by Jean-Baptiste Colbert, Louis

This research was conducted thanks to funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and Innovation Programme ERC Grant agreement No. 724544: *AveTransRisk—Average—Transaction Costs and Risk Management during the First Globalization (Sixteenth–Eighteenth Centuries)*. This chapter draws from my doctoral research: 'Privilege at a Premium: Insurance, Maritime Law and Political Economy in Early Modern France, 1664-c. 1710' (Unpublished Ph.D. thesis, University of Exeter, 2021). I am grateful to Maria Fusaro, Cátia Antunes, Gijs Dreijer and Dave De ruysscher for their comments on earlier drafts. All translations are my own.

L. Wade (✉)
University of Exeter, Exeter, UK
e-mail: lw531@exeter.ac.uk

© The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1_15

XIV's famous minister, the wide-reaching *Ordonnance* assimilated a rich genealogy of customary maritime law into a single proclamation of positive law. Yet very little has been said by historians about how the *Ordonnance* was compiled. This essay sheds light on this process through studying the *Chambre générale des assurances et grosses aventures* (1668–1686), a little-known Parisian insurance institution established under the auspices of Colbert.[1] The crown consulted the *Chambre* on maritime affairs before the *Ordonnance* was issued. Yet, as an insurance institution, the *Chambre* was not an impartial source of counsel. This essay analyses the advice given by the *Chambre* on which entities should contribute to General Average costs in instances of ship redemptions, which bore clear evidence of self-interest. This forced the crown to reinterpret its advice within a broader logic that catered to the interests of other maritime stakeholders at the expense of insurers. This case study invites us to evaluate our understanding of how the *Ordonnance* was compiled and to reflect more broadly on the interests of the French state in insurance practices across France.

Contextualising the Ordonnance: Custom, Positive Law and the French State

The *Ordonnance de la marine* was a product of the French state's push for greater legal authority across all aspects of life in France, which entailed a broad, protracted and contested shift from diffuse customary and seigneurial law to state-derived positive law. Martine Grinberg has written on the transformation of seigneurial rights and customs into positive law which derived its legitimacy from the state.[2] This emerged

[1] The only works to have treated on the *Chambre* in the past century in any detail are L. Boiteux, *L'assurance maritime à Paris sous le règne de Louis XIV* (Paris 1945); and J. Thiveaud, 'La naissance des assurances maritimes et Colbert', *Revue d'économie financière*, 4 (1988): 151–156.

[2] Written medieval *aveux* enshrined seigneurial rights—i.e. the responsibilities (financial or otherwise) of tenants to their *seigneur*. Medieval and early modern French jurists broadly agreed that custom was common usage that fulfilled three criteria: it was timeless; it was consented to by the public, albeit not in an explicit manner; and it was widely known; M. Grinberg, *Écrire les coutumes: Les droits seigneuriaux en France* (Paris 2006), 67. This echoes the definition of custom widely accepted by medieval Roman law jurists such as Bartolus of Sassoferato, see E. Kadens, 'The Myth of the Customary Law Merchant', *Texas Law Review*, 90 (2012): 1153–1206, 1163–1164.

through the process of recording seigneurial rights and customs in *assemblées de redaction*. These assemblies were tasked with collating, editing and recording seigneurial rights and customs across France. To quote Grinberg, the "redaction and reformation of customs were at the same time a reality of writing, a juridical event and a political process".[3] The mere act of compiling, deliberating on and recording customs transformed them entirely, as their written nature and ratification by an assembly gave them the status of positive law that they had not enjoyed up to that point: timeless custom became time-bound law.[4]

This shift of ultimate legislative power towards the crown was pushed back, however, by the French Wars of the Religion of 1562–98. The return to peace with the reigns of Henri IV and Louis XIII kicked this process off again, but it was neither speedy nor linear. An early—but ultimately failed—effort in French legal codification, buttressed supposedly by Louis XIII's authority, emerged in the form of the *Code Michau*, promulgated in 1629. The code sought a bold 'commercial mercantilis[t]' revolution, as Bernard Allaire has called it, promoting cooperation between the crown, nobility and merchants to achieve greater cross-border trade through crown regulation of commercial and maritime practices and crown support of mercantile endeavours and shipbuilding.[5] Although the crown successfully forced the *parlement* of Paris to register the code through a *lit de justice*, whereby the king himself appeared to ensure his will was exercised, it was not registered in the *parlements* of the Midi in southern France. In any case, it soon became a 'dead letter' in its jurisdictional claims, ignored even by the crown after 1630.

The code was a failure at the time; however, while 1629 was not the time to see such reform through, it provided blueprints for a more propitious attempt by Colbert in 1667 and beyond.

What had changed between 1629 and 1667? Colbert's ability to push for legal codification stemmed from the *détente* that emerged between

[3] Grinberg, *Écrire les coutumes*, 3–4.

[4] This transformation, as conceived by medieval jurists of Roman law, is discussed in E. Kadens, 'Convergence and the Colonization of Custom in Pre-modern Europe', *Comparative Legal History*, 167 (2019): 167–185.

[5] B. Allaire, 'Between Oléron and Colbert: The Evolution of French Maritime Law Until the Seventeenth Century', in M. Fusaro, B. Allaire, R. Blakemore, and T. Vanneste eds., *Law, Labour and Empire: Comparative Perspectives on Seafarers, c. 1500–1800* (Basingstoke 2015), 79–99, 86.

the crown and the nobility in the aftermath of the *Frondes*.[6] These were a set of uprisings throughout France in the period 1648–53 with roots in municipal and provincial grievances towards Louis XIV's chief minister during his minority, Cardinal Mazarin. The failure of the resistance, led by the Grand Condé, emphasised that the French crown was too strong to be defeated by the splintered nobility; yet the French crown depended on long-entrenched patronage networks in the provinces—with nobles as linchpins—to pursue its interests and impose its will. Therefore, the *Frondes* were significant in entrenching a broadly collaborative relationship between the crown and the nobility leading into Louis XIV's personal rule.[7] This dynamic facilitated the crown's efforts to assert greater legal authority across France.

Outside of France, the geopolitical climate had also substantially shifted. Colbert's newfound capacity to pursue fiscal and maritime reforms was supported by a strong *need* to pursue such reforms in the light of the rapid naval development of England and the United Provinces in the 1650s and 1660s. After the Franco-Spanish Treaty of the Pyrenees of 1659, Louis XIV's gaze turned northwards to the new Protestant threats whose presses painted France as a paradigm for popish 'tyranny' for the remainder of the century.[8] Certainly, Colbert was truly obsessed with the economic success of the Dutch after 1648 and consciously modelled his commercial projects on Dutch archetypes.[9]

[6] This is recognised in id. p. 99.

[7] On absolutism as social collaboration, see W. Beik, 'The Absolutism of Louis XIV as Social Collaboration', *Past and Present*, 188 (2005): 195–224.

[8] C. Levillain, *Vaincre Louis XIV. Angleterre, Hollande, France: Histoire d'une relation triangulaire 1665–1688* (Seyssel 2010), 111 and 363–364.

[9] Such influence is so extensive that a monograph could easily be written discussing it. Therefore, select reading suggestions must suffice here. On Colbert and the state regulation and support of Languedoc cloth production as a response to Anglo-Dutch success in Levantine commerce, see J. Horn, *Economic Development in Early Modern France: The Privilege of Liberty, 1650–1820* (Cambridge 2015); J. Thomson, *Clermont-de-Lodève 1633–1789: Fluctuations in the Prosperity of a Languedocian Cloth-Making Town* (Cambridge 2003). On Colbert and the chartered companies and colonial ventures inspired by Dutch equivalents, see M. Ménard-Jacob, *La première compagnie des Indes: Apprentissages, échecs et héritage 1664–1704* (Rennes 2016); K. Banks, 'Financiers, Factors, and French Proprietary Companies in West Africa, 1673–1713', in L. Roper and B. Ruymbeke eds., *Constructing Early Modern Empires Proprietary Ventures in the Atlantic World, 1500–1750* (Leiden 2007), 79–116; E. Heijmans, *The Agency of Empire: Connections and Strategies in French Overseas Expansion (1686–1746)* (Leiden 2019). On Colbert and protectionist

With the crushing of the *Frondes*, the renewed support of the nobility, Louis XIV's declaration of personal rule in 1661 and the good fortune of almost uninterrupted peace until the Dutch War of 1672, Colbert pursued widespread reform with far less resistance than his predecessors, Cardinal Richelieu and Mazarin, had faced before him. Ambitious legal interventions supported Colbert's famous commercial and maritime interests. Amongst a broader administrative reform—including the *Ordonnance civile* of 1667, the *Ordonnance sur les eaux et forêts* of 1669 and the *Ordonnance criminelle* of 1670—came Colbert's famous *Ordonnance sur le commerce* of 1673 and *Ordonnance de la marine* of 1681. Together, these *Ordonnances* legislated for all aspects of French life. The *Ordonnance de la marine* (hereafter the *Ordonnance*) enshrined the authority of the admiralty courts in the first instance in a vast array of maritime disputes, including insurance and Averages. This authority was rigorously defined in the *Ordonnance*'s 730 articles.[10] Later edicts of 1691 clarified the jurisdictional field of play across France by defining the precise bounds of each admiralty's jurisdictional reach, helping to cement the crown's efforts where previous measures to assert the authority of the admiralties had failed.[11]

The significance of the *Ordonnance* is widely noted, even if the extent to which it was successfully implemented has not yet been explored extensively.[12] Yet, as Francesca Trivellato has recently noted, 'the precise itinerary that led to the formulation' of the *Ordonnance* 'is poorly documented', so little is currently known about how it was compiled.[13]

legislation which aimed to exclude Dutch ships, see F. Lane, *Profits from Power: Readings in Protection Rent and Violence Controlling Enterprise* (Albany 1979); S. Marzagalli, 'Trade Across Religious and Confessional Boundaries in Early Modern France', in F. Trivellato, L. Halevi, and C. Antunes eds., *Religion and Trade: Cross-Cultural Exchanges in World History, 1000–1900* (Oxford 2014), 169–191, 183.

[10] Allaire, 'Between Oléron and Colbert', 90. The *Ordonnance* stipulated arbitration in the first instance for insurance disputes, but arbitration judgements were ratified by the admiralty court; on this, see Wade, 'Privilege at a Premium'.

[11] J. Darsel, 'L'Amirauté de Bretagne: Des origines à la Révolution', in G. Le Bouëdec ed., *L'Amirauté en Bretagne: Des origines à la fin du XVIIIe siècle* (Rennes 2012), 53–374, 263.

[12] The essays in Le Bouëdec ed., *L'Amirauté en Bretagne* are excellent exceptions to the rule.

[13] F. Trivellato, '"Amphibious Power": The Law of Wreck, Maritime Customs, and Sovereignty in Richelieu's France', *Law and History Review*, 33 (2015): 915–944, 924.

Consequently, writers since the *ancien régime* have focussed on the influence of the legal texts preceding the *Ordonnance*. In accessing these texts, Colbert and the compilers were indebted to Richelieu and the humanist circle that emerged around him during the Cardinal's premiership.[14] Most notably, Étienne Cleirac's 1648 work *Us et coutumes de la mer* reproduced, and offered commentaries for, legal compilations that were influential in the governing of maritime affairs. Two of these compilations would go on to have a particular influence on the *Ordonnance*'s approach to General Average and insurance: the *Rôles d'Oléron* and the *Guidon de la mer*. The *Rôles* emerged originally between 1204 and 1224 as a 'code of conduct' for the merchants, ship-owners, captains and crews involved in the voyages of the wine fleet that took place annually from La Rochelle or Bordeaux to Brittany, Normandy, England, Scotland or Flanders.[15] The articles of the *Rôles* were translated and adapted more broadly in the following centuries across northern Europe. By contrast, the *Guidon* was "a collection of norms concerning primarily marine insurance emanating from Rouen in the late sixteenth century".[16] Since General Average contributions were insurable in France up to and after the *Ordonnance*, the *Guidon* also discusses the instrument extensively.

Writers have recognised the influence of these compilations on the *Ordonnance* for centuries. René-Josué Valin's extraordinary eighteenth-century commentary on the *Ordonnance* painstakingly documented the legal borrowing throughout the text, recognising that its 'principles, sense and spirit' can only be understood if it is studied alongside the legal sources which informed its construction.[17] Similarly, while the famous eighteenth-century Marseillais lawyer Balthazard-Marie Émérigon

René-Josué Valin lamented even in the eighteenth century that 'the names of these great men [i.e. the compilers] have not reached us'; R. Valin, *Nouveau commentaire sur l'Ordonnance de la marine du mois d'août 1681*, 2 vols. (La Rochelle: Jerôme Legier 1766), I, IV. On the theory that M. Bonaventure de Fourcroy was editor of the *Ordonnance*, see J. Chadelat, 'L'élaboration de l'Ordonnance de la marine d'août 1681', *Revue historique de droit français et étranger*, 31 (1954): 228–253.

[14] See Trivellato, '"Amphibious Power"; E. Thomson, 'Commerce, Law, and Erudite Culture: The Mechanics of Théodore Godefroy's Service to Cardinal Richelieu', *Journal of the History of Ideas*, 68 (2007): 407–427.

[15] J. Shephard, 'The *Rôles d'Oléron*: a *lex mercatoria* of the sea?', in V. Piergiovanni ed., *From lex mercatoria to commercial law* (Berlin 2005), 207–253.

[16] Trivellato, '"Amphibious Power"', 925.

[17] Valin, *Nouveau commentaire*, I: VII.

acknowledged in passing that provincial institutions 'were without doubt consulted' on the *Ordonnance*, his emphasis remained on the legal texts preceding it. After introducing an array of medieval compilations, including the *Rôles* and the *Guidon*, he concluded that "the *Ordonnance* of 1681 is a composite of all these ancient laws".[18] In adopting this textual focus, both men applauded the compilers' deft ability to draw on prior legal compilations to create a coherent and comprehensive document of positive law.

The significance of these compilations is indisputable. I will argue, however, that the use of these texts in compiling the *Ordonnance* needs to be reinterpreted in the light of the influence of an insurance institution whose existence has been widely ignored by historians. It is to this institution that I now turn.

The *Chambre* and the Compilation of the *Ordonnance*

The *Chambre générale des assurances et grosses aventures* was established on 5 June 1668, with the blessing of Jean-Baptiste Colbert, Louis XIV's eminent minister of financial, commercial and, after 1669, maritime affairs.[19] The *Chambre* comprised a group of notable Parisians who conducted private underwriting on *rue Quincampoix* in central Paris. Francesco Bellinzani became the *Chambre*'s president in 1670, a position he retained until his death in 1684.[20] Bellinzani was Colbert's right-hand man in commercial affairs, serving as intendant of commerce (*intendant du commerce*) in the secretariat of state for maritime affairs (*secrétariat*

[18] B. Émérigon, *Traité des assurances et des contrats à la grosse*, 2 vols. (Rennes: Chez Molliex 1827), I, XIV. On the process of gathering information about maritime law in the run up to 1681, see Chadelat, 'L'élaboration de l'Ordonnance de la marine'. On the Dutch influences on the *Guidon* and the *Ordonnance*, see R. Warlomont, 'Les sources néerlandaises de l'Ordonnance maritime de Colbert (1681)', *Revue belge de philologie et d'histoire,* 33 (1955): 333–344.

[19] D. Pouilloux, *Mémoires d'assurances: Recueil de sources françaises sur l'histoire des assurances du XVIème au XIXème siècle* (Paris 2011), 419.

[20] On Bellinzani's death, see Wade, 'Privilege at a Premium'.

Table 1 The amounts underwritten by the *Chambre* in *livres tournois* in the years 1668–1672, alongside the losses recorded in those years. N.B. this does not include Averages

Year	*Amount underwritten*	*Recorded losses*
1668	998,130	5600
1669	1,824,250	11,400
1670	3,017,445	73,500
1671	4,730,729	131,200
1672	6,086,089	614,258
Total	16,656,643	835,958

Source The AveTransRisk database, based on the data from Z/1d/75–78, *Archives nationales*; Wade, 'Privilege at a Premium'

d'état de la marine), but it is unclear whether Bellinzani had had any underwriting experience before joining the *Chambre*.[21]

From its establishment in 1668, the *Chambre*'s underwriters faced several challenges by virtue of being located in Paris, away from the key maritime networks of information. Indeed, Colbert noted in a letter of 26 December 1671 that 'the majority of disagreements' between the *Chambre*'s underwriters and policyholders were 'a product of the difficulty of having certain news about the loss of insured vessels and merchandise'.[22] Yet Table 1 illustrates that, in spite of these challenges, the insurers consistently scaled up their underwriting each year up to 1672.

This trend was reversed after the onset of the Dutch War in 1672. A flood of Dutch corsairs swarmed the Atlantic coastline of France and ravaged commercial shipping.[23] The losses were significant, and Colbert wrote in 1673 that many underwriters had withdrawn entirely from the

[21] D. Dessert, *Argent, pouvoir et société au Grand Siècle* (Paris 1984), 337. For more on Bellinzani's role in the *Chambre*, see Wade, 'Privilege at a Premium'.

[22] Jean Baptiste Colbert and Pierre Clément ed., *Lettres, instructions, et mémoires de Colbert*, 7 vols. (Paris: Imprimerie impériale 1863), II–ii: 640.

[23] Boiteux, *L'assurance maritime à Paris*, p. 45. Bellinzani was warned in a letter from Cadiz dated 12 September 1672 that five Dutch warships were threatening French Mediterranean shipping also; *Mélanges de Colbert* 161, f. 361r^{o}, *Bibliothèque nationale de France*, Paris.

Chambre as a result.[24] Never again did underwriting in the *Chambre* reach the levels seen between 1670 and 1672.

Yet the institution's influence continued long after 1672, as revealed in the preface of Jacques Savary's bestselling commercial manual of 1675, *Le parfait négociant*. Here, Savary justified his decision to not treat extensively on maritime affairs, explaining that, having been informed of the *Ordonnance*'s ongoing process of drafting, he did not wish to make claims that would eventually contradict it. In a piece of self-fashioning common in commercial manuals of the period, Savary added that 'I even had the honour of giving my opinion in the *Chambre des assurances* of this city of Paris' on matters pertaining to the forthcoming *Ordonnance*.[25] This opportunity likely arose from his services as an external arbiter for the *Chambre* in instances of policy disputes.[26]

Sadly, much of this process does not seem to have been recorded, save for one instance noted in a register where the *Chambre* kept minutes of its general assemblies. On 7 August 1676—after *Le parfait négociant* was published, suggesting that the *Chambre*'s involvement in discussions on the *Ordonnance* was not isolated—a general assembly of the *Chambre* was held.[27] Bellinzani asked the members to give their opinion on two questions: firstly, in instances of the redemption of captured ships where the contribution of the ship and merchandise are obligatory through General Average, should the freight also contribute? Secondly, should the merchandise be valued at the rate of purchase, or at their value in the place where they are eventually unloaded?[28]

These were questions to which the members were eminently qualified to respond. Insurers were widely recognised as being liable for General Average contributions: in the *Guidon de la mer*, article 1 of the chapter

[24] Colbert and Clément, *Lettres, instructions, et mémoires de Colbert*, I–ii: 675. The early years of the *Chambre*, and the difficulties faced after 1672, are discussed at length in Wade, 'Privilege at a Premium'.

[25] J. Savary, *Le parfait négociant, ou Instruction générale pour ce qui regarde le commerce des marchandises de France et des pays étrangers*, 2 vols. (Paris: Frères Estienne 1757), I, XIII.

[26] Z/1d/73, f. 21, *Archives nationales*, Paris (hereafter AN).

[27] This was attended by *messieurs* Bellettes de Vaux, Pocquelin *frères*, Raguienne, Margas, Froment, Dorigny, Estancelin, Francois, Villain, Maillet, Formont and Mignot; id. f. 29v°.

[28] Id. f. 29v°. On issues of contribution in General Average, see also Daphne Penna, Hassan Khalilieh and Andrea Addobbati's essays in this volume.

Des avaries begins with the statement that "the insurer is obliged to indemnify the merchant [i.e. policyholder] for… [all] averages", including General Average, and other costs incurred from the moment merchandise is loaded on a vessel.[29] Indeed, General Average was recognised as a significant topic of discussion within the *Chambre* in its first ever general assembly on 17 June 1670, and the precise interpretation of the *Guidon* vis-à-vis Averages and insurance indemnities underpinned a dispute during a general assembly of 15 July 1670.[30] Consequently, the *Chambre*'s underwriters grappled with the intricacies of General Average as part of their profession. Yet this posed a problem, as the underwriters' technical knowledge of General Average was intimately intertwined with their direct stake in the direction to be taken by the *Ordonnance*: how a contribution to General Average was determined could radically alter the scale of an insurer's pay-out and the scope for further dispute with the policyholder. In response to these questions, therefore, the members opted to give clear, decisive answers based on an underlying logic of clarity—a logic that would best serve the underwriters' interests.

Answering the first question, the members concluded that the ship—alongside its equipment and 'provisions', the money advanced to the crew and 'generally all which is spent to put the ship to sea'—is liable for contribution, in addition to the merchandise.[31] The freight should not contribute to the Average, however, as it is precisely the ship and the associated costs which generate the freight—that is, the freight constitutes payment for the service provided through these investments. It would therefore be unjust, they argued, if the ship 'was to pay twice [for] the same thing, and it is for this reason that the *ordonnances de la mer* will that it is the ship or the freight which contributes, but not both'.[32]

[29] É. Cleirac, *Les us et coutumes de la mer: Divisées en trois parties* (Rouen: Jean Berthelin 1671), 199. The *Guidon* here followed commonplace practice elsewhere in Europe: from the sixteenth century, General Average came to be covered by the insurers of Antwerp, with pertinent legislation from 1551 and 1563 and the publication of commercial manuals that guided practices in the city; G. Dreijer, 'The Power and Pains of Polysemy: General Average, Maritime Trade and Normative Practice in the Southern Low Countries (Fifteenth-Sixteenth Centuries)', unpublished PhD thesis, University of Exeter/Vrije Universiteit Brussel (2021).

[30] Z/1d/73, ff. 2r°–3r° and 4v°–5r°, AN.

[31] Id. f. 29v°.

[32] Ibid.

The phrase '*ordonnances de la mer*' here most likely refers to several maritime compilations from the late-medieval period. No doubt the members had the *Rôles d'Oléron* in mind: while the earliest versions of the *Rôles* made no mention of freight, later versions—including the version in Cleirac's *Us et coutumes de la mer*—empowered the shipmaster to 'say whether to count the ship or his freightage, at his choice, to compensate the damage'.[33] This was to the benefit of the shipmaster, who could simply choose between the ship and the freight depending on which would require the smallest contribution. The *Ordinancie* of Amsterdam—which heavily influenced the *Waterrecht*, another significant medieval compilation—diverged here in giving this power of choice to the merchants.[34]

In this case, the *Chambre*'s members openly defied prior legal compilations by arguing that there should be no choice between the ship and the freight in each case: instead, the ship should always contribute while the freight should not. On the surface, this does not appear to have been a self-interested response, as freight was broadly recognised to be beyond the remit of insurers. In the *Guidon de la mer*, article 1 of the section *Des asseurances sur corps de nef* allows for insurance on the ship and its materials, but 'by no means on the freight', in conformity with the practices of Antwerp and Amsterdam.[35] If anything, the insurers stood to lose out if their suggestion was implemented, as the contribution demanded by the entities they insured would be greater than if the freight was included. The members sought greater uniformity and clarity in maritime practice here, even if it did not necessarily serve their own interests.

This logic fed into the members' answer to the second question. They suggested that the merchandise subject to contribution should be valued based on how much it cost in the place of purchase rather than its estimated value in the place of unloading, as 'the evaluation of merchandise in the latter place is a variable, uncertain thing and subject to contesting', while the cost in the place of purchase 'is always certain and is justified by

[33] E. Frankot, *'Of Laws of Ships and Shipmen': Medieval Maritime Law and Its Practice in Urban Northern Europe* (Edinburgh 2012), 39; Cleirac, *Us et coutumes de la mer*.

[34] Frankot, *'Of Laws of Ships and Shipmen'*, 42–43.

[35] Cleirac, *Us et coutumes de la mer*, 265. The *Ordonnance* proved no different, prohibiting any insurance of the freight in article 15 of the section *Des assurances*; Valin, *Nouveau commentaire*, II: 58.

invoices and other items'.[36] This was an entirely unconventional recommendation: article 8 of the *Rôles d'Oléron* suggested that merchandise subject to contribution should be valued based on the price received in the place of unloading. This was also common practice in Antwerp after the sixteenth century, per Quentin Weytsen's famous manual on Averages.[37]

Why did the members wish for the *Ordonnance* to go against the grain here? Again, they strove for certainty—but, in this instance, certainty met their own interests. Merchandise was by far the most insured effect in the *Chambre*.[38] Thus, the benefits of the *Chambre*'s logic were clear: contributions from merchandise based on the cost in the place of purchase would almost always be lower than those based on the value in the place of unloading. Even though this proposal risked underwriters being liable for greater costs in instances where they insured the ship, the contribution of the merchandise would at least be 'certain': valuing the merchandise based on invoices rather than estimates would engender confidence in the validity of the General Average *calculus*. This was all the more important for the *Chambre*'s underwriters because of the challenges they faced in gathering information on maritime affairs; set documentary standards would create a clear paper trail alleviating the information asymmetries faced in Paris.

This sheds light on why the members argued so strongly to exclude freight from contributing to redemption costs. Since they argued that the contributing merchandise should be valued based on its cost *before* the redemption, it would have been inconsistent for the members to have argued that the freight—paid at the *conclusion* of the voyage—must contribute.[39]

[36] Z/1d/73, f. 29v^{o}, AN.

[37] Cleirac, *Us et coutumes de la mer*, 28–29; Valin, *Nouveau commentaire* vol. II, 194. On Weytsen, see the contribution of Gijs Dreijer in this volume. In instances of jettison, Hassan Khalilieh found that there was often widespread dispute in medieval Islamic discourse as to whether jettisoned goods should be ascribed a value based on the market price in the port of departure, the port of destination, the point of jettison or another point entirely; H. Khalilieh, *Islamic Maritime Law: An Introduction* (Leiden 1998), 99–100.

[38] See Wade, 'Privilege at a Premium'.

[39] I am grateful to Sabine Go for her thoughts on this.

In short, the *Chambre* stood to benefit from its own proposal. The members argued that the selection and valuation of contributing entities should be derived from documentation produced, and actions made, *before* the redemption of the ship. Consequently, they strove to exclude freight—the payment of which was a by-product of the completed voyage—from General Average contributions and to value the merchandise based on its price in the place of purchase. This *ex-ante* logic aimed to limit pay-outs and to create documentary standards that would aid the members' underwriting.

The *Ordonnance* bears the imprint of this input, but the *Chambre*'s logic apparently did not persuade the compilers. Article 20 of the section *Du fret ou nolis* mandates that 'contributions for the redemption [of ships] will be made on [1] the standard price of merchandise in the place of their unloading, deducting fees, and [2] on the total [value] of the ship and freight, deducting the consumed provisions and advances made to the sailors, who will also contribute to the benefit of the freight, in proportion to what remains due of their wages'.[40]

The *Ordonnance* therefore determined, in defiance of the earlier compilations, that both the ship and the freight should contribute, albeit with specific deductions to be made. The bipartite structuring of the article—reflecting the questions posed to the *Chambre*—and the precise deductions which were mandated indicates that the *Chambre*'s opinions were taken into account, but the *ex-ante* logic they proposed for calculating contributions was rejected. Specifically, the compilers seem to have been receptive to the members' argument that any voyage involving the freighting of merchandise depends upon a significant upfront investment. The members identified the 'provisions' and the money advanced to the crew as examples of services provided by the shipmaster and/or ship-owners for which the freight is given. While the compilers clearly did not agree with the members' conclusion that the freight should not contribute, the article specifically deducts 'consumed provisions and advances made to the sailors' from the total value of the ship and the freight. Key aspects from the members' discussion were therefore integrated into the *Ordonnance*, but through an entirely different logic.

[40] Valin, *Nouveau commentaire*, I: 663.

What was this logic? While the *Chambre*'s members sought a level of uniformity and transparency that would support their underwriting activities, the *Ordonnance* article is more complicated, reflecting a need to address the interests of all the stakeholders in a voyage. Rejecting the *Chambre*'s call for valuing merchandise based on its price in the place of purchase, the article echoed the *Rôles d'Oléron* and the practices of Antwerp in stipulating that merchandise be valued at the 'standard price' in the place of unloading. This likely aimed to anticipate and respond to the argument that would be posed by shipmasters that, without the redemption of the ship, the merchandise would never reach the eventual place of unloading; therefore, the merchandise should contribute in line with the 'added value' engendered by the redemption of the ship. The same logic holds true for the ship and the freight: since the shipmaster's control of the ship and the earning of their freight at the end of the voyage depend on the redemption of the ship, it is fair that both contribute. This is also why the sailors were required to contribute in proportion to their outstanding wages.

Therefore, while the *Chambre* argued strongly for an *ex-ante* approach to selecting and valuing any contributing entities, the *Ordonnance* enshrined an *ex-post* logic. The compilers of the *Ordonnance* focussed on the benefits generated *as a result* of the ship's redemption, thereby concluding that the freight ought to contribute and the merchandise be valued based on its 'standard price' in the place of unloading. This inversion of logic reflects the different interests that were at stake: the *ex-ante* logic proposed by the *Chambre* would have served the interests of the insurer, but not of the other parties in the voyage.

The *Ordonnance* echoed the *Guidon de la mer* in holding insurers liable for General Average costs in article 46 of the section *Des assurances*, while article 6 of the section *Des avaries* defined all costs relating to the redemption of ships and merchandise as being within the remit of General Average.[41] The fears of the *Chambre*'s underwriters were realised: the *Ordonnance* held insurers liable for redemption costs incurred by policyholders, and these costs were to be calculated based on the 'variable, uncertain' estimates of contributing merchandise in the place of

[41] Id. II: 99 and 165.

unloading. Although the crown benefited from the expertise of the *Chambre* while compiling the *Ordonnance*, the *Chambre*'s own interests had not been served in the process.

Conclusion

This case study on the *Ordonnance*'s approach to General Average offers interesting avenues for further research. Firstly, it is an important corrective to a legal literature that has understandably focussed on the *Ordonnance*'s debts to prior legal texts. I do not wish to suggest that this literature is wrong—on the contrary, these legal sources were invaluable to the *Ordonnance*'s construction—but we need to view this process of construction in a new light. As we have seen, these texts were the basis of discussions between the *Chambre* and the state for how best to serve the needs of the different stakeholders in maritime voyages. As the *Chambre*'s members recognised, these texts had a large role to play in determining what constituted commonplace practice, but texts were far from perfect vessels of legal wisdom: they required interpretation, upon which hinged the interests of numerous maritime stakeholders. François Olivier-Martin has noted that good counsel was sought for the *Ordonnance du commerce*, and the *Ordonnance* was no different here—but the counsel given in this instance was not accepted in its entirety.[42] The *Ordonnance* was therefore not simply a coherent and disinterested synthesis of prior legal compilations: these compilations were the basis for a broader process of negotiation, whereby the French state sought to mediate and reconcile the interests of various stakeholders in the maritime sphere. New evidence may shed further light on the debates underpinning the construction of the *Ordonnance*.

Furthermore, the crown's desire to consult with the *Chambre* on the *Ordonnance*, while ultimately ignoring the institution's own interests, is emblematic of the broader complexities in the state's interest in insurance under Louis XIV.[43] This interest—scarcely treated by historians up to now—continued beyond Colbert's death: in May 1686, the *Chambre* gave way to a new Parisian insurance institution, the *Compagnie générale*

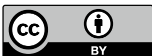
[42] F. Olivier-Martin, *Histoire du droit français: Des origines à la Révolution* (Paris 2010), 399.

[43] On this, see Wade, 'Privilege at a Premium'.

des assurances et grosses aventures. This was created under the auspices of Colbert's son and successor as secretary of state for maritime affairs, the Marquis de Seignelay. Just as the Dutch War had devastated the *Chambre*, the *Compagnie* was crippled by the Nine Years' War, and the new institution had ceased any significant level of underwriting by 1710. The *Ordonnance*, therefore, was simply one piece of a far larger puzzle that becomes all the more puzzling in the light of the difficulties faced by these insurance institutions. These institutions deserve further exploration: while Amsterdam and London shone as centres of insurance in this period, Paris witnessed two false dawns that may cast the commercial history of France under the Sun King in a new light.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.



Bibliography

Published Primary Sources

Leon Battista **Alberti**, *I Libri della Famiglia*, eds. R. Romano and A. Tenenti (Turin, 1969)

Michele **Amari**, *I diplomi arabi del regio archivio fiorentino* (Florence: Le Monnier, 1863)

Alexander **Annesley**, *A Compendium of the Law of Marine Insurance, Bottomry, Insurance on Lives and Insurance against Fire in which the Mode of Calculating Averages Is Defined and Illustrated by Examples* (Middletown, CT: A. Riley, 1808)

Rafael **Antúnez y Acevedo**, *Memorias históricas sobre la legislación y gobierno del comercio de los españoles con sus colonias en las Indias Occidentales* (Madrid: Imprenta de Sancha, 1797)

Thomas **Aquinas**, *Summa Theologiae*, in *Opera omnia*, 3 vols (Parma: Fiaccadori, 1853)

Aristotle, *The Nichomachean Ethics*, with an English translation by H. Rackham (Cambridge, MA, 1956)

Aritmetica: secondo la lezione del Codice 2669 (sec. 15.) della Biblioteca Riccardiana di Firenze, ed. G. Arrighi (Florence, 1969)

Bartholomaeus **a Saliceto**, *In Secundam Digesti veteris partem* (Frankfurt: Lazarus Zetznerus, 1615)

E.J. **Asser**, *Het Amsterdamsch Compromis voor de regeling der Avarij Grosse en Avarij Particulier op de lading* (Amsterdam: Blikman & Sartorius, 1879)

Domenico Alberto **Azuni**, *Dizionario ragionato della giurisprudenza mercantile*, 4 vols (Livorno: G. Masi, 1822)

© The Editor(s) (if applicable) and The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1

Ascanio **Baldasseroni**, *Dizionario ragionato di giurisprudenza marittima, e di commercio, fondato sulle disposizioni del Codice Napoleone e conciliato alla pratica del codice di procedura*, 4 vols (Livorno: Tommaso Masi e Co., 1810)

———. *Delle Assicurazioni Marittime, Trattato*, 4 vols (Florence: Stamperia Bonducciana, 1786)

Francesco **Balducci Pegolotti**, *La Pratica della Mercatura*, ed. A. Evans (Cambridge, MA, 1936)

ʿAbd Allāh Ibn ʿUmar **Bayḍāwī**, *Al-Ghāya al-Quṣwā fī Dirāyat al-Fatwā* (Al-Dummām, 1982)

William **Benecke**, *A Treatise on the Principle of Indemnity of Marine Insurance, Bottomry and Respondentia, and on their Practical Application in Effecting Those Contracts and in the Adjustment of All Claims Arising Out of Them* (London: Baldwin, Cradock and Joy, 1824)

M. **Ben-Sasson**, *The Jews of Sicily 825–1068: Documents and Sources* [in Hebrew] (Jerusalem, 1991)

Pierre Sebastien **Boulay-Paty**, *Corso di diritto commerciale marittimo, giusta i principi e secondo l'ordine del Codice di Commercio*, 3 vols (Naples: Stamperia francese, 1827)

Abū al-Qāsim Ibn Aḥmad **Burzulī**, *Jāmiʿ Masāʾil al-Aḥkām li-mā Nazala min al-Qaḍāyā bi'l-Muftīn wa'l-Ḥukkām* (Beirut, 2002)

Filippo **Calandri**, *Una raccolta di ragioni. Dal Codice L. VI. 45 della Biblioteca comunale di Siena*, ed. D. Santini (Siena, 1982)

———. *De Aritmetica opuscolum* (Florence: Lorenzo Morgiani and Johann Petri, 1492)

Capitolare nauticum pro emporio veneto anni MCCLV Duce Raynerio Zeno. Ex antiquo codice quirino, in *Barbarorum leges antiquae cum notis et glossariis*, ed. Paolo Canciani, 5 vols (Venice: Coletium et Rossi, 1781–1792): V: 341–366

Capitulj et ordinatione di mare et di mercantie (Rome: Antonio de Bladi, 1519)

Giuseppe Maria **Casaregi** ed., *Libro del Consolato del Mare* (Lucca: Cappuri & Santini, 1720)

———. *Discursus legales de commercio*, 4 vols (Venice: Balleoniana, 1740)

Etienne **Cleirac**, *Us et coustumes de la mer, divisées en trois parties: I. De la navigation. II. Du commerce naval & contracts maritimes. III. De la iuris-diction de la marine. Avec un traicté des termes de marine & reglemens de la nauigation des fleuves & rivieres* (Bordeaux: Guillaume Millanges, 1647)

Jean-Baptiste **Colbert** and Pierre Clément ed., *Lettres, instructions, et mémoires de Colbert*, 7 vols (Paris: Imprimerie impériale, 1863)

Consilium almi collegii doctorum utriusque inclite civitatis Perusii super montem pietatis in *Pro Monte Pietatis* (Venice: Johannes Tacuinus, 1494–1498)

Petrus Philippus **Corneus** Perusinus [Pier Filippo della Corgna], *In primam Codis partem* (Lyon: Eredi Giunta, 1553)

Cortes de los Antiguos Reinos de León y Castilla, 7 vols (Madrid: Imprenta y Estereotipia de M. Rivadeneyra, 1861–1903)

Jacques **Cujas**, *Observationum et emendationum*, Lib. XXIII, cap. XXXV *Duobus in locis emendatur* § 1. l. 2. D *de leg. Rhod. De jactu*, in *Opera*, pars. I. tom. I (Prato: F. Giachetti, 1836): 1069–1071

Giovanni di Antonio **da Uzzano**, *La pratica della mercatura*, in Gian Francesco Pagnini del Ventura, *Della decima e di varie altre gravezze imposte dal comune di Firenze*, 4 vols (Lisbon-Lucca [Florence: Bouchard], 1766)

Lucas **de Burgo S. Sepulchri**, *Somma di arithmetica, geometria, proporzioni e proporzionalità* (Venice: Paganinus de Paganinis, 1494)

Antonio **de Capmany y Monpalau**, *Código de las costumbres marítimas de Barcelona, hasta aquí vulgarmente llamado Libro del Consulado, nuevamente traducido al castellano con el texto lemosín restituido a su original integridad y pureza, e ilustrado con varios apéndices, glosarios y observaciones históricas* (Madrid: Don Antonio de Sancha, 1791)

Gratia **de' Castellani**, *Chasi sopra chonpagnie. Dal codice Palatino 573 della Biblioteca nazionale di Firenze*, ed. M. Pancanti (Siena, 1984)

Paulus **de Castro**, *Super secunda parte Digesti veteris* (Venice: Andreas Calabrensis Papiensis, 1492)

Franciscus **de Empulis**, *Questio de monte*, in L. Armstrong, 'The Politics of Usury in Trecento Florence: The *Questio de monte* of Francesco da Empoli', *Mediaeval Studies*, 61 (1999): 1–44

Johannis **de Friburgo**, *Summa confessorum* (Lyons: Henricus Vortoma, 1518)

Degli Statuti civili della Serenissima Repubblica di Genova (Genoa: Pavoni, 1613)

Estanislao Jaime **de Labayru y Goicoechea**, *Historia General del Señorío de Bizcaya* (Bilbao: Casa Editorial la Propaganda, 1895–1903)

Guillaume **De Longé**, *Coutumes du Pays et Duché de Brabant. Quartier d'Anvers, Coutumes de la ville d'Anvers*, 6 vols (Brussels: Fr. Gobbaerts, 1870–1879)

Pedro **de Medina**, *Regimiento de navegación. Contiene las cosas que los pilotos han de saber para bien navegar; y los remedios y avisos que han de tener para los peligros que navegando les pueden suceder* (Seville: Simón Carpintero, 1563)

Tomás **de Mercado**, *Summa de Tratos y Contratos* (Seville: Fernando Diaz Impressor, 1637)

Laurentius **de Rodulphis**, *De usuris*, in *Tractatus universi iuris*, t. 7: "De contractibus, et aliis illicitis" (Venice: Ziletti, 1584)

Bartholomaeus **de Sancto Concordio**, *Summa de casibus conscientiae cum supplemento Nicolai de Ausimo* (Venice: [s.n.], 1474)

Bartolus **de Saxoferrato**, *Lectura super prima et secunda parte Digesti veteris* (Venice: Baptista de Tortis, 1493)

Cornelio **Desimoni** ed., *Statuto dei Padri del Comune della repubblica genovese* (Genoa: Fratelli Pagano, 1885)

Juan **de Solórzano Pereira**, *Política Indiana sacada en lengua castellana de los dos tomos del Derecho y gobierno municipal de las Indias Occidentales que más copiosamente escribió en la Latina el Dotor Don Ivan de Solorzano Pereira, caballero del Orden de Santiago, del Consejo del Rey Nuestro Señor en los Supremos de Castilla y de las Indias...*, 2 vols (Madrid: Diego Díaz de la Carrera, 1648)

Goffredus **de Trano**, *Summa super tituli decretalium* (Venice: Bernardinus Stagninus, 1491)

Baldus **de Ubaldis**, *In quartum et quintum Codicis libros commentaria* (Venice: Iuntas, 1599)

———. *Tomus secundus in Digestum vetus* (Lyon: Joannes Thierri Lingonensis, 1541)

Josè **de Veitia y Linage**, *Norte de la Contratación de las Indias Occidentales. Al Exmo Sor Conde de Peñaranda Gentilhombre de la Camara de Su Mag.^{d} de su consejo de estado de la junta del gouierno uniuersal de estos Reynos y Presidente del Real y supremo Consejo de Indias por Don Joseph de Veitia linage cauallero de la orden de Santiago s.^{or} de la Casa de Veitia del cons.^{o} de Su Mag.^{d} su Tesorero Juez oficial de la Real audiencia de la contratacion de las Yndias de la ciudad de Sevilla* (Seville: Por Juan Francisco de Blas, 1672)

Arnaldus **de Villa Nova**, *Repetitio Super Canonem Vita Brevis*, in M.R. McVaugh and L. Garcia Ballester, 'Therapeutic Method in the Later Middle Ages: Arnau de Vilanova on Medical Contingency', *Caduceus: A Humanities Journal for Medicine and the Health Sciences*, 11/2 (1995): 73–86

Francesc **Eixemenis**, *Tractat d'usura*, ed. J. Hernando I Delgado (Barcelona, 1985)

Balthazard-Marie **Émerigon**, *Traité des Assurances et des contrats a la grosse*, 2 vols (Marseille: Chez Jean Mossy, 1783)

Enciclopedia del negoziante, ossia gran dizionario del commercio, dell'industria, del banco e delle manifatture, 4 vols (Venice: Antonelli, 1842)

Martin **Fernández de Navarrete**, *Disertaciones históricas sobre la parte que tuvieron los españoles en las Guerras de ultramar o de la Cruzada, como influyeron estas expediciones en desde el siglo XI hasta el XV en la extensión del comercio marítimo y en los progresos del arte de navegar* (Madrid: Imprenta de Sancha, 1816)

———. *Colección de los viajes y descubrimientos que hicieron por mar los españoles desde fines del siglo XV, con varios documentos inéditos concernientes a la historia de la marina castellana y de los establecimientos españoles en Indias*, 5 vols (Madrid: Imprenta nacional, 1829–1859)

Francesco **Foramiti**, *Enciclopedia legale, ovvero lessico ragionato di gius naturale, civile, canonico, mercantile-cambiario-marittimo, feudale, penale, pubblico-interno e delle genti*, 5 vols (Venice: Tipi del gondoliere, 1838–40)

Fuentes Documentales Medievales del País Vasco (San Sebastián, 1982–...)

Diego **García de Palacio**, *Instrvcion Navthica, para el bven vso y regimiento de las Naos, su traça y gouierno conforme a la altura de Mexico* (México: Pedro Ocharte, 1587)

Abū Ḥāmid Muḥammad Ibn Muḥammad **Ghazālī**, *Kitāb al-Wajīz fī Fiqh al-Imām al-Shāfʿī* (Cairo, 1899)

Paolo **Gherardi**, *Opera matematica. Libro di ragioni - Liber habaci. Codici magliabechiani classe XI, nn. 87 e 88 (sec. XIV) della Biblioteca Nazionale di Firenze*, ed. G. Arrighi (Lucca, 1987)

M. **Gil**, *In the Kingdom of Ishmael: Texts from the Cairo Geniza* [in Hebrew] (Tel Aviv, 1997)

———. *Palestine During the First Islamic Period (634–1099)* [in Hebrew] (Tel Aviv, 1983)

S.D. **Goitein** and M.A. Friedman eds., *India Traders of the Middle Ages: Documents from the Cairo Geniza* (Leiden, 2008)

[H. **Grotius**] H. de G., *Mare Liberum, sive de jure quod Batavis competit ad Indicana commercia dissertation* (Leiden: Ludovici Elzeviri, 1609)

———. *The free sea*, translated by R. Hakluyt with W. Welwod's Critique and Grotius' Reply, edited and with an introduction by David Armitage (Indianapolis, 2004)

G.E. **Heimbach**, *Constantini Harmenopuli: Manuale legum sive Hexabiblos* (Leipzig: T.G. Weigel, 1851)

Juan **Hevia Bolaño**, *Curia Philipica, Primero y Segundo Tomo. El Primero, dividido en cinco partes, donde se trata breve y compendiosamente de los Juicios Civiles y Criminales, Eclesiásticos y Seculares, con lo que sobre ello está dispuesto por Derecho, y resoluciones de Doctores; útil para los Profesores de ambos Derechos y Fueros, Jueces, Abogados, Escribanos, Procuradores y otras personas. El segundo Tomo, distribuido en tres libros, donde se trata de la Mercancía y Contratación de Tierra y Mar; útil y provechoso para Mercaderes, Negociadores, Navegantes, y sus Consulados, Ministros de los Juicios y Profesores de Jurisprudencia* (Madrid: Imprenta de Ulloa, 1790 [1603])

C. **Hidalgo** de Cisneros Amestoy et al. eds., *Colección documental del Archivo Municipal de Portugalete* (San Sebastián, 1987)

Abū al-Qāsim ʿUbayd Allāh Ibn al-Ḥusayn Ibn al-Ḥasan al-Baṣrī **Ibn al-Jallāb**, *Al-Tafrīʿ* (Beirut, 1987)

al-Muḥtasib, Muḥammad Ibn Aḥmad **Ibn Bassām**, *Nihāyat al-Rutba fī Ṭalab al-Ḥisba* (Baghdad, 1968)

Abū Muḥammad ʿAlī Ibn Aḥmad Ibn Saʿīd **Ibn Ḥazm**, *Al-Muḥallā bil-Āthār* (Beirut, 1988)

Abū al-Qāsim Muḥammad Ibn Aḥmad **Ibn Juzayy**, *Al-Qawānīn al-Fiqhiyya* (Tunis, 1982)

Muwaffaq al-Dīn Abū Muḥammad ʿAbd Allāh Ibn Aḥmad Ibn Muḥammad **Ibn Qudāma**, *Al-Mughnī* (Cairo, 1986)

Abū al-Walīd Muḥammad Ibn Aḥmad **Ibn Rushd**, *Al-Bayān wa'l-Taḥṣīl wa'l-Sharḥ wa'l-Tawjīh wa'l-Taʿlīl fī Masāʾil al-Mustakhraja* (Beirut, 1984)

Abū al-Walīd Muḥammad Ibn Aḥmad **Ibn Rushd**, *Masāʾil Abī al-Walīd Ibn Rushd* (Beirut, 1993)

Abū al-Walīd Muḥammad Ibn Aḥmad **Ibn Rushd**, *Fatāwā Ibn Rushd* (Beirut, 1987)

Il Consolato del Mare, O. Sciolla ed., (Turin, 1911)

Monaldus **Iustinopolitanus**, *Summa* (Lyon: Petrum Baleti, 1516)

ʿAlī Ibn Yaḥyā **Jazīrī**, *Al-Maqṣad al-Maḥmūd fī Talkhīṣ al-ʿUqūd* (Madrid, 1998)

G. **Khan**, *Arabic Legal and Administrative Documents in the Cambridge Genizah Collections* (Cambridge, 1993)

Abū Bakr Aḥmad Ibn ʿAbd Allāh Ibn Mūsā **Kindī**, *Al-Muṣannaf* (Masqaṭ, 1983)

Las Siete Partidas del Sabio Rey don Alfonso el nono, nueuamente Glosadas por el Licenciado Gregorio Lopez del Consejo Real de Indias de su Magestad (Salamanca: Andrea de Portonaris, 1605)

Las Siete Partidas, 4 vols (Madrid: Compañía General de Impresores y Libreros del Reino, 1843)

Llibre del Consolat de Mar, eds. G. Colón Domènech and A. García Sanz (Barcelona, 2001)

Johannis **Loccenii**, *De jure maritimo et navali* (Stockholm: J. Janssonii, 1652)

Alexander **Lombardus** (de Alexandria), *Tractatus de usuris*, in ed. A.M. Hamelin, *Un traité de morale économique au* xiv*e* *siècle. Le* Tractatus de usuris *de maître Alexandre d'Alexandrie* (Louvain, 1962)

R.S. **Lopez** and I.W. Raymond, *Medieval Trade in the Mediterranean World. Illustrative Documents Translated with Introductions and Notes* (London, 1955)

Nicolò **Machiavelli**, *The Prince*, translated by J.B. Atkinson (Indianapolis, 1976)

Johanne **Marquardi**, *De iure mercatorum et commerciorum* (Frankfurt: Th. & M. Götzii, 1662)

François **Mayssoni** ed., *Le livre du Consolat, contenant les loix, ordonnances, statutz, & coustumes touchant les contractz, marchandises, negociation maritime & de la navigation, tant entre marchandz, que patrons de navire, & autres mariniers : nouvellement traduict de language espaignol & italien en françoys* (Aix-en-Provence: Pierre Roux, 1577)

C.H. **Monroe** ed. and transl., *Digest of Justinian* (Cambridge, 1904–1909)

Monumenta Historiae Patriae, *Leges Municipales*, 23 vols (Turin: fratelli Bocca, 1836–1901)

Abū Zakariyyā Yaḥyā Ibn Sharaf **Nawawī**, *Rawḍat al-Ṭālibīn* (Beirut, 1992)

Muḥammad Ibn al-Qāsim **Nuwayrī**, *Kitāb al-Ilmām bi'l-Iʿlām fī-mā Jarat bi-hi al-Aḥkām wa'l-Umūr al-Muqḍiya fī Waqʿat al-Iskandariyya* (Hyderabad, 1969)

Muḥammad Ibn al-Qāsim **Nuwayrī**, *Nihāyat al-Arab fī Funūn al-Adab* (Cairo, 1964)

Hermann **Noordkerk**, *Handvesten ofte privilegiën ende octroyen mitsgaders willekeuren, costuimen, ordonnantiën en handelingen der stad Amsterdam*, 5 vols (Amsterdam: Hendrik Janssonius van Waesberge, Salomon en Petrus Schouten, 1748)

Petrus Johannis **Olivi**, *Tractatus de contractibus*, in Pierre de Jean Olivi, *Traité de contrats*, ed. S. Piron (Paris, 2012): 258–260

Petrus Johannis **Olivi**, *Quodlibet I, quaestio XVII*, in A. Spicciani, 'Gli scritti sul capitale e sull'interesse di fra Pietro di Giovanni Olivi. Fonti per la storia del pensiero economico medievale', *Studi Francescani*, 73 (1976): 317–321

Giulio **Pace**, *De dominio maris Hadriatici* (Lyon: Bartolomeus Vincenti, 1619)

Jean-Noël **Paquot**, *Memoires pour servir a l'histoire litteraire des dix-sept Provinces des Pays-Bas, de la Principauté de Liege, et de quelques contrées voisines*, 18 vols (Leuven: Imprimerie academique, 1762)

Jean-Marie **Pardessus**, *Collection des lois maritimes antérieurs au XVIIIe siècle*, 6 vols (Paris: Imprimerie royale, 1828–1845)

Giovanni Battista **Pedrezzano**, *Libro di consolato novamente stampato et ricorretto, nel quale sono scritti capitoli & statuti & buone ordinationi, che li antichi ordinarono per li casi di mercantia & di mare & mercanti & marinari, & patroni di nauilii* (Venice: Giovanni Padoanno, 1539)

Gio Domenico **Peri**, *Il Negotiante* (Venice: Gio Giacomo Herz, 1672–1673)

Plato, *The Republic*, edited and translated by C. Emlyn-Jones and W. Preddy (Cambridge, MA, 2013)

Vincenzo **Promis**, 'Statuti della Colonia Genovese di Pera', *Miscellanea di Storia Italiana*, XI (1870): 513–780

Shihāb al-Dīn Abū al-ʿAbbās Ibn Idrīs **Qarāfī**, *Al-Dhakhīra* (Beirut, 1994)

Shihāb al-Dīn Abū al-ʿAbbās Ibn Idrīs **Qarāfī**, *Al-Furūq* (Tunis, 1885)

Abū Isḥāq Ibrāhım Ibn Ḥasan **Rafīʿ**, *Muʿīn al-Ḥukkām ʿalā al-Qaḍāyā wa'l-Aḥkām* (Beirut, 1989)

Muṣṭafā M. **Rajab**, *Al-Qānūn al-Baḥrī al-Islāmī ka-Maṣdar li-Qawāʿid al-Qānūn al-Baḥrī al-Muʿāṣir* (Alexandria, 1990)

Abū ʿAbd Allāh Muḥammad al-Anṣārī **Raṣṣāʿ**, *Sharḥ Ḥudūd Ibn ʿArafa* (Beirut, 1993)

Recopilación de Leyes de los Reynos de las Indias. Mandadas imprimir, y pvblicar por la Magestad Catolica del Rey Nuestro Señor. Va dividida en qvatro Tomos, con el Indice general, y al principio de cada Tomo el Indice especial de los titulos, que contiene, 4 vols (Madrid: Por Ivlian de Paredes, 1681)

Francesco **Rocco**, *De navibus et naulo. Item de assecurationibus notabilia* (Amsterdam: F. Halma, 1708)

Giovanni di Pagolo **Rucellai**, *Zibaldone*, ed. G. Battista (Florence, 2013)

Jacques **Savary**, *Le parfait négociant, ou Instruction générale pour ce qui regarde le commerce des marchandises de France et des pays étrangers*, 2 vols (Paris: Frères Estienne, 1757)

R. **Savelli** ed., *Repertorio degli statuti della Liguria (XII–XVIII secc.)* (Genoa, 2003)

Sigismondo **Scaccia**, *Tractatus de commerciis et cambio* (Venice: Sumptibus Bertanorum, 1650)

John **Selden**, *Mare Clausum seu de Dominio Maris libri duo* (London: W. Stansby for R. Meighen, 1635)

Select Committee of the House of Commons … on Marine Insurance (London: W. Hughes, 1810)

Bernardinus **Senensis**, *Quadragesimale de evangelio aeterno*, in Bernardinus Senensis, *Opera Omnia*, 4 vols (Florence, 1956)

Muḥammad Ibn Idrīs **Shāfiʿī**, *Al-Umm* (Beirut, 1973)

ʿĀmir Ibn ʿAlī **Shammākhī**, *Al-Īḍāḥ* (Beirut, 1970)

Statutorum civilium Reipublicae Genuensis (Genoa: Hieronymum Bartolum, 1589)

Petrus **Strozzi**, *Opusculum de Monte*, in J. Kirshner, 'Storm Over the 'Monte comune': Genesis of the Moral Controversy Over the Public Debt of Florence', *Archivum Fratrum Praedicatorum*, 53 (1983): 219–276

Abū al-Ḥasan ʿAlī Ibn al-Ḥusayn Ibn Muḥammad **Sughdī**, *Al-Nutaf fī al-Fatāwā* (Beirut, 1984)

Aḥmad Ibn Muḥammad **Ṭaḥāwī**, *Al-Shurūṭ al-Ṣaghīr* (Baghdad, 1992)

Muṣṭafā A. **Ṭāher**, ed., 'Kitāb Akriyat al-Sufun wa'l-Nizāʿ bayna Ahlihā', *Cahiers de Tunisie*, 31 (1983): 5–54

Saḥnūn Ibn Saʿīd **Tanūkhī**, *Al-Mudawwana al-Kubrā* (Cairo, 1905)

Carlo **Targa**, *Ponderationi sopra la Ponderazione Marittima* (Genoa: A.M. Scionico, 1692)

René-Josué **Valin**, *Nouveau commentaire sur l'Ordonnance de la marine du mois d'août 1681*, 2 vols (La Rochelle: Jerôme Legier, 1766)

Adrian **Verwer**, *Nederlants See-Rechten: Avaryen en Bodemeryen Begrepen in de Gemeene Costuimen vander See; de Placcaten van Keiser Karel den Vijfden 1551 en Knoning Filips den II 1563 't Tractaet van Mr Quintyn Weitsen van de Nederlantsche Avaryen* (Amsterdam: Jan Boom, 1711)

Jan **Wagenaar**, *Amsterdam in zijne opkomst, aanwas, geschiedenissen, voorregten, koophandel, gebouwen, kerkenstaat, schoolen, schutterij, gilden en regeringen*, 23 vols (Amsterdam: Isaak Tirion, 1760–1767)

Abū al-ʿAbbās Aḥmad Ibn Yaḥyā **Wansharīsī**, *Al-Miʿyār al-Muʿrib wa'l-Jāmiʿ al-Mughrib ʿan Fatāwā Ahl Ifrīqiya wa'l-Andalus wa'l-Maghrib* (Beirut, 1981)

A. **Watson** ed., *The Digest of Justinian* (transl. Mommsen, Ed. Maior), 4 vols (Philadelphia, 1985)

William **Welwood**, *An Abridgement of All Sea-Lawes; Gathered Forth of all Writings and Monuments, Which Are to Be Found Among Any People or Nation, Upon the Coasts of the Great Ocean and Mediterranean Sea: And Specially Ordered and Disposed for the Use and Benefit of All Benevolent Sea-Farers, Within His Maiesties Dominions of Great Britanne, Ireland, and the Adiacent Isles Thereof* (London: Humfrey Lownes for Thomas Man, 1613)

Quintin **Weytsen**, *Een Tractaet van Avarien, dat is: gemeene contributie van de koopmanschappen ende goederen in den schepe bevonden om te helpen dragen, 't verlies van eenige kooplieden ofte schippers goeden, gewillighlijck gebeurt om lijf, schip, ende goedt te salveren* (Middelburg: François Crook, 1663)

———. *Een Tractaet van Avarien* (Harlingen: L. Vlasboem, 1646)

———. *Tractatus de Avariis.Cum observationibus Simonis a Leeuwen et Matthei de Vicq* (Amsterdam: H. & T. Boom, 1672 [1617])

al-Qāḍī ʿIyāḍ Ibn Mūsā **Yaḥṣubī**, *Madhāhib al-Ḥukkām fī Nawāzil al-Aḥkām* (Beirut, 1990)

Muḥammad Murtaḍā al-Ḥusaynī **Zabīdī**, *Tāj al-ʿArūs*, ed. Ḥussein Naṣṣār (Kuwait, 1974)

Secondary Bibliography

D.S.H. Abulafia, *The Western Mediterranean Kingdoms: The Struggle for Dominion, 1200–1500* (London, 1997)

A. Acosta Rodríguez, A. González Rodríguez, and E. Vila Vilar eds., *La Casa de la Contratación y la navegación entre España y las Indias* (Seville, 2003)

A. Addobbati, 'Until the Very Last Nail: English Seafaring and Wage Litigation in Seventeenth-Century Livorno', in M. Fusaro, B. Allaire, R.J. Blakemore, and T. Vanneste eds., *Law, Labour and Empire: Comparative Perspectives on Seafarers, c. 1500–1800* (Basingstoke, 2015): 43–60

———. 'Italy 1500–1800: Cooperation and Competition', in A.L. Leonard ed., *Marine Insurance: Origins and Institutions: 1300–1850* (Basingstoke, 2015): 47–77

———. *Commercio, Rischio, Guerra. Il mercato delle assicurazioni marittime di Livorno* (1694–1795) (Rome, 2007)

———. 'La giurisdizione marittima e commerciale dei consoli del mare in età medicea', in M. Tangheroni ed., *Pisa e il Mediterraneo: Uomini, merci, idee dagli Etruschi ai Medici* (Milan, 2003): 311–315

A. Addobbati and M. Aglietti eds., *La città delle nazioni: Livorno e i limiti del cosmopolitismo (1566–1834)* (Pisa, 2016)

A. Addobbati and J. Dyble, 'Cento barili di polvere: Sondaggio microstorico per lo studio della contribuzione in avaria (Toscana e Inghilterra nel secondo Seicento)', forthcoming in *Quaderni Storici*

A. Afsar, 'A Comparative Study of the Art of Jonah/Yūnus Narrative in the Bible and the Qurʾān', *Islamic Studies*, 48/3 (2009): 319–339
G. Agamben, *Karman. Breve trattato sull'azione, la colpa e il gesto* (Turin, 2017)
M. Aglietti, *L'istituto consolare tra Sette e Ottocento. Funzioni istituzionali, profilo giuridico e percorsi professionali nella Toscana granducale* (Florence, 2012)
G.A. Akerlof and R.J. Shiller, *Animal Spirits: How Human Psychology Drives the Economy and Why It Matters for Global Capitalism* (Princeton, 2009)
G. Alfani and V. Gourdon, 'Entrepreneurs, Formalization of Social Ties, and Trustbuilding in Europe (Fourteenth to Twentieth Centuries)', *The Economic History Review*, 65 (2012): 1005–1028
M. Alfonso Mola and C. Martínez Shaw, 'Defensa naval de los reinos de Indias', in H. O'Donnell et al. eds., *Historia Militar de España*, I: 121–142
ʿA.Y. ʿAlī, *The Meaning of the Holy Qurʾān* (Brentwood, 1991)
B. Allaire, 'Between Oléron and Colbert: The Evolution of French Maritime Law Until the Seventeenth Century', in M. Fusaro, B. Allaire, R.J. Blakemore, and T. Vanneste eds., *Law, Labour and Empire: Comparative Perspectives on Seafarers, c. 1500–1800* (Basingstoke, 2015): 79–99
B. Arízaga Bolumburu, 'Conflictividad por la jurisdicción marítima y fluvial en el Cantábrico en la Edad Media', in J.Á. Solórzano Telechea et al. eds., *Ciudades y villas portuarias del Atlántico en la Edad Media* (Logroño, 2005): 17–55
D. Armitage, A. Bashford, and S. Sivasundaram eds., *Oceanic Histories* (Cambridge, 2017)
G. Arrighi ed., *Libro d'abaco. Dal Codice 1754 (sec. XIV) della Statale di Lucca* (Lucca, 1973)
F. Arteaga, D. Desierto, and M. Koyama, 'Shipwrecked by Rents' (2020); Working paper, avalaible at SSRN: https://ssrn.com/abstract=3693463
W. Ashburner, *The Rhodian Sea-Law* (Oxford, 1909)
S. Assaf, *Texts and Studies in Jewish History* [in Hebrew] (Jerusalem, 1946)
P.F. Asso and L. Fiorito, 'Was Frank Knight an Institutionalist?', *Review of Political Economy*, 20/1 (2008): 59–77
D. Attard, M. Fitzmaurice, I. Arroyo, N. Martinez, and E. Belja eds., *The IMLI* (International Maritime Law Institute) *Manual on International Maritime Law*, vol. II: *Shipping Law* (Oxford, 2016)
J.J. Aubert, 'Commerce', in D. Johnston ed., *The Cambridge Companion to Roman Law* (Cambridge, 2015): 213–245
———. 'Dealing with the Abyss: The Nature and Purpose of the Rhodian Sea-Law on Jettison (*Lex Rhodia De Iactu*, D 14.2) and the Making of Justinian's Digest', in J.W. Cairns and P.J. du Plessis eds., *Beyond Dogmatics: Law and Society in the Roman World* (Edinburgh, 2007): 157–172
M. Aymard, *Venise, Raguse et le commerce du blé pendant la seconde moité du XVe siècle* (Paris, 1995)

E. Aznar Vallejo, ‘Las rentas del Almirantazgo castellano: Entre la ley la costumbre’, *En la España Medieval*, 37 (2014): 131–163
R. Baetens, *De nazomer van Antwerpens welvaart: de diaspora en het handelshuis De Groote tijdens de eerste helft der 17e eeuw* (Brussels, 1976)
R.S. Bagnall et al. eds., *The Encyclopedia of Ancient History* (Oxford, 2012)
A. Ballesteros y Bereta, *La marina cántabra y Juan de la Cosa* (Santander, 1954)
K. Banks, ‘Financiers, Factors, and French Proprietary Companies in West Africa, 1673–1713’, in L. Roper and B. Ruymbeke eds., *Constructing Early Modern Empires: Proprietary Ventures in the Atlantic World, 1500–1750* (Leiden, 2007): 79–116
V. Barbour, ‘Marine Risks and Insurance in the Seventeenth Century’, *Journal of Economic and Business History*, I (1928/1929): 561–596
M. Baruchello, *Livorno e il suo porto. Origini, caratteristiche e vicende dei traffici livornesi* (Livorno, 1932)
M. Basas Fernández, *El Consulado de Burgos en el siglo XVI* (Madrid, 1963)
J.B. Baskin and P.J. Miranti Jr., *A History of Corporate Finance* (Cambridge, 1997)
S. Battaglia, *Grande Dizionario della Lingua Italiana* (Naples, 1961)
J. Beckert, *Imagined Futures: Fictional Expectations and Capitalist Dynamics* (Cambridge, MA, 2016)
J. Beckert and R. Bronk, ‘An Introduction to Uncertain Futures’, in Eidem eds., *Uncertain Futures: Imaginaries, Narratives, and Calculation in the Economy* (Oxford, 2018): 1–38
W. Beik, ‘The Absolutism of Louis XIV as Social Collaboration’, *Past and Present*, 188 (2005): 195–224
J.M. Bello León, ‘Los no vecinos en las ciudades de la Andalucía atlántica a finales de la Edad Media’, in J.Á. Solórzano Telechea et al. eds., *Las sociedades portuarias de la Europa Atlántica en la Edad Media* (Logroño, 2016): 285–317
———. ‘Mercaderes extranjeros en Sevilla en tiempos de los Reyes Católicos’, *Historia. Instituciones. Documentos*, 20 (1993): 47–84
J.M. Bello León and M. González Jiménez, ‘El puerto de Sevilla en la Baja Edad Media (siglos XIII–XV)’, in B. Garí and D. Abulafia eds., *En las costas del Mediterráneo occidental: las ciudades de la Península Ibérica y del reino de Mallorca y el comercio mediterráneo en la Edad Media* (Madrid, 1996), 213–236.
L.A. Benton, ‘The Legal Regime of the South Atlantic World, 1400–1750: Jurisdictional Complexity as Institutional Order’, *Journal of World History*, 11 (2000): 27–56
E. Bensa, *Il contratto di assicurazione nel Medio Evo: studi e ricerche* (Genoa: Tipografia marittima editrice, 1884)
———. *The Early History of Bills of Lading* (Genoa, 1925)

G. Benvenuti, *Le repubbliche marinare. Amalfi, Pisa, Genova e Venezia* (Rome, 1989)

S. Bernabéu Albert and C. Martínez Shaw eds., *Un océano de seda y plata: el universo económico del Galeón de Manila* (Seville, 2013)

A.M. Bernal, 'La contabilidad como instrumento de conciliación y arbitraje en la Carrera de Indias (siglos XVI–XVIII)', *Anuario de Estudios Atlánticos*, 54/1 (2008): 513–539

P. Bernstein, *Against the Gods: The Remarkable Story of Risk* (New York, 1996)

M. Berti, 'I rischi nella circolazione marittima tra Europa nordica e Europa mediterranea nel primo trentennio del Seicento ed il caso della seconda guerra anglo-olandese (1665–67)', in S. Cavaciocchi ed., *Ricchezza del mare, ricchezza dal mare, secc. XIII–XVIII* (Florence, 2007): 809–839

E. Besta, 'Legislazione e scienza giuridica dalla caduta dell'impero romano al secolo decimoquarto', in P. Del Giudice ed., *Storia del diritto italiano* (Milan, 1925): 666–669

C. Bitossi, 'Il governo della Repubblica e della Casa di San Giorgio: i ceti dirigenti dopo la riforma costituzionale del 1576', in G. Felloni ed., *La Casa di San Giorgio: il potere del credito* (Genoa, 2006): 91–107

———. *"La Repubblica è vecchia". Patriziato e governo a Genova nel secondo Settecento* (Rome, 1995)

———. *Il governo dei magnifici. Patriziato e politica a Genova fra Cinque e Seicento* (Genoa, 1990)

J.A. Black, 'A New Custom Thickens: Increased Coastal State Jurisdiction Within Sovereign Waters', *Boston University International Law Journal*, 37/2 (2019): 355–394

W. Blockmans, M. Krom, and J. Wubs-Mrozewicz eds., *The Routledge Handbook of Maritime Trade Around Europe 1300–1600: Commercial Networks and Urban Autonomy* (Abingdon–New York, 2017)

B. Blondé, O.C. Gelderblom, and P. Stabel, 'Foreign Merchant Communities in Bruges, Antwerp and Amsterdam', in D. Calabi and S.T. Christensen eds., *Cultural Exchange in Early Modern Europe*, Volume 2: *Cities and Cultural Exchange in Europe, 1400–1700* (Cambridge, 2007): 154–174

A. Bogatyreva, 'England 1660–1720: Corporate or Private?', in A.L. Leonard ed., *Marine Insurance: Origins and Institutions: 1300–1850* (Basingstoke, 2015): 179–203

N. Bogojevic-Gluscevic, 'The Law and Practice of Average in Medieval Towns of the Eastern Adriatic', *Journal of Maritime Law & Commerce*, 36/1 (2005): 21–59

L.A. Boiteux, *La fortune de mer: le besoin de securité et les debuts de l'assurance maritime* (Paris, 1968)

———. *L'assurance maritime à Paris sous le règne de Louis XIV* (Paris, 1945)

D. Bolanča, V. Pezelj, and P. Amižić, 'General Average—An Ancient Institution of Maritime Law', *Ius Romanum*, 2 (2017): 1–10

V. Borghesi, *Il Mediterraneo tra due rivoluzioni nautiche (secoli XIV–XVII)* (Florence, 1976)

M.C. Borrego Plá, 'Don José de Veitia y la Universidad de Mareantes', in F. Navarro Antolín ed., *Orbis incognitvs: avisos y legajos del Nuevo Mundo: homenaje al profesor Luis Navarro García*, 2 vols (Huelva, 2007): 1: 293–306

L. Boschetto, 'Democrito e la fisiologia della follia. La parodia della filosofia e della medicina nel 'Momus' di Leon Battista Alberti', *Rinascimento*, II s., 35 (1995): 3–29

J.F. Bosher, 'The Gaigneur Clan in the Seventeenth-Century Canada Trade', in O.U. Janzen ed., *Merchants Organization and Maritime Trade in the North Atlantic, 1660–1815* (St. John's Newfoundland, 1998): 15–51

G.d.C. Boutet, *España América. Un océano de negocios. Quinto Centenario de la Casa de la Contratación 1503–2003* (Seville, 2003)

W. Brandes ed., *Fontes Minores XIII* (Berlin/Boston, 2021)

F. Braudel, *Civilization and Capitalism, 15th–18th Century*, vol. III: *The Perspective of the World* (London, 1984): 157–174

F. Braudel and R. Romano, *Navires et marchandises à l'entrée du port de Livourne (1547–1611)* (Paris, 1951)

A. Brown and J. Dumolyn eds., *Medieval Bruges, c. 850–c. 1550* (Cambridge, 2018)

W. Brulez, 'L'exportation des Pays-Bas vers l'Italie par voie de terre, au milieu du XVIe siècle', *Annales. Economies, sociétés, civilisations*, 3 (1959): 461–491

A. Brusa, 'Dal Portofranco della Repubblica genovese al deposito franco dei giorni nostri', in *Il Porto di Genova nella mostra di Palazzo San Giorgio* (Milan, 1953): 137–167

A. Brzezinski, Y. Chen, N. Palma, and F. Ward, 'The Vagaries of the Sea: Evidence on the Real Effects of Money from Maritime Disasters in the Spanish Empire', Working paper No. 170, European Economic History Society, available at: https://econpapers.repec.org/paper/heswpaper/0170.htm (last accessed 30 December 2021)

C. Buchet and G. Le Bouëdec eds., *The Sea in History—The Early Modern World* (Woodbridge, 2017)

A. Burgess, A. Alemanno, and J. Zinn eds., *Routledge Handbook of Risk Studies* (Abingdon–New York, 2016)

P. Burke, *Hybrid Renaissance: Culture, Language, Architecture* (Budapest–New York, 2016)

J.A. Caballero Juárez, 'Los asientos de la avería de la Armada de la Carrera de Indias', *Ius fugit. Revista interdisciplinar de estudios histórico-jurídicos*, 5–6 (1996–1997): 431–446

G. Calafat, *Une mer jalousie: Contribution à l'histoire de la souveraineté (Méditerranée, XVIIe siècle)* (Paris, 2019)

———. 'Livorno e la camera di commercio di Marsiglia nel XVII secolo: consoli francesi, agenti e riscossione del cottimo', in A. Addobbati and M. Aglietti eds., *La città delle nazioni: Livorno e i limiti del cosmopolitismo (1566–1834)* (Pisa, 2016): 237–276

———. 'La somme des besoins: rescrits, informations et suppliques (Toscane, 1550–1750)', *L'Atelier du Centre de recherches historiques*, 13 (2015), available at: https://journals.openedition.org/acrh/6525 (last accessed 4 January 2021)

P. Calcagno, *Fraudum. Contrabbandi e illeciti doganali nel Mediterraneo (sec. XVIII)* (Rome, 2019)

J.M. Calderón Ortega, *El Almirantazgo de Castilla. Historia de una institución conflictiva (1250–1560)* (Madrid, 2003)

M. Calegari, 'Patroni di mare e magistrature marittime: i *Conservatores Navium*', *Miscellanea Storica Ligure*, II/1 (1970): 57–91

O. Cancila, *Impresa redditi mercato nella Sicilia moderna* (Palermo, 2003)

R. Carande, *Carlos V y sus banqueros. La vida económica en Castilla (1516–1556)* (Barcelona, 2000)

C. Carrières, 'Renouveau espagnol et prêt à la grosse aventure (Notes sur la place de Cadiz dans la seconde moitié du XVIIIe siècle)', *Revue d'histoire moderne et contemporaine*, 17/2 (1970): 221–252

G. Casaccia, *Vocabolario Genovese – Italiano* (Genoa: Tipografia dei fratelli Pagano, 1851)

H. Casado Alonso, *El seguro maritimo en Castilla en los siglos XV y XVI* (Valladolid, 2021)

———. 'Insuring Life, Insuring Debt: Life Insurance in Sixteenth-Century Spain', *Pedralbes*, 40 (2020): 75–95

———. 'Juan Henriquez, un corredor de seguros de Amberes a mediados del Siglo XVI', in J.C. Pérez Manrique ed., *Palabras de archivo: homenaje a Milagros Moratinos Palomero* (Burgos, 2018): 49–68

———. 'Los seguros maritimos de Burgos. Observatorio del comercio internacional portugués en el siglo XVI', *Historia. Revista de Facultade de Letras do Porto*, s. 3, 4 (2003): 213–242

———. 'Comercio internacional y seguros marítimos en Burgos en la época de los Reyes Católicos', in *Congresso Internacional Bartolomeu Dias e a sua época*, 5 vols (Porto, 1989): 3: 585–608

A.J. Casey, 'Chapter 11's Renegotiation Framework and the Purpose of Corporate Bankruptcy', *Columbia Law Review*, 120/7 (2020): 1709–1770

A. Castellani, 'Capitoli d'un'introduzione alla grammatica storica italiana. IV: Mode settentrionali e parole d'oltremare', *Studi Linguistici Italiani*, 14 (1988): 165–172

P. Castignoli, 'Struttura e funzione dei consolati per fortune di mare a Livorno', *La Canaviglia*, 8 (1983): 39–42

S. Cavaciocchi ed., *Ricchezza del mare, ricchezza dal mare, secc. XIII–XVIII* (Florence, 2007)

R.C. Cave and H.H. Coulson eds., *A Source Book for Medieval Economic History* (New York, 1965)

G. Ceccarelli, *Risky Markets: Marine Insurance in Renaissance Florence* (Leiden, 2020)

———. 'Courtiers et assurances maritimes: les raisons d'une liaison profonde (XIVe–XVIe siècles)', in M. Scherman, A. Wegener Sleeswijk, and V. Demont eds., *Le pouvoir des courtiers. Intermédiation marchande et évolution des pratiques commerciales, XIVe–XVIIIe siècles* (Paris, 2018): 75–86

———. 'Coping with Unknown Risks in Renaissance Florence: Insurers, Friars and Abacus Teachers', in C. Zwierlein ed., *The Dark Side of Knowledge: Histories of Ignorance, 1400 to 1800* (Leiden, 2016): 115–138

———. 'Le logiche del rischio economico fra XIII e XV secolo', in A. De Vincentiis ed., *Il moderno nel medioevo* (Rome, 2010): 201–212

———. 'The Price for Risk-Taking: Marine Insurance and Probability Calculus in the Late Middle Ages', *Journ@l électronique d'Histoire des Probabilités et de la Statistique/Electronic Journ@l for History of Probability and Statistics*, 3/1 (2007), available at: http://eudml.org/doc/130865 (last accessed 4 January 2022)

———. 'Notai, confessori e usurai: concezioni del credito a confronto (secc. XIII–XIV)', in *Prestito, credito, finanza in età basso medievale* (Asti, 2007): 113–153

———. 'Quando rischiare è lecito. Il credito finalizzato al commercio marittimo nella riflessione scolastica tardomedievale, in S. Cavaciocchi ed., *Ricchezza del mare, ricchezza dal mare, secc. XIII–XVIII* (Florence, 2007): 1187–1200

———. 'Gambling and Economic Thought in the Late Middle Ages', *Ludica, annali di storia e civiltà del gioco*, 12 (2006): 54–63

———. 'Risky Business: Theological and Canonical Thought on Insurance from the Thirteenth to the Seventeenth Century', *Journal of Medieval and Early Modern Studies*, 31/3 (2001): 607–658

G. Céspedes del Castillo, *La avería en el comercio de Indias* (Seville, 1945) [also available as 'La Avería en el Comercio de Indias', *Anuario de Estudios Americanos*, 2 (1945): 515–698]

J. Chadelat, 'L'élaboration de l'Ordonnance de la marine d'août 1681', *Revue historique de droit français et étranger*, 31 (1954): 228–253

O. Chaline, *La mer et la France: Quand les Bourbons voulaient dominer les océans* (Paris, 2016)

M.Á. Chamocho Cantudo, *Los fueros de los reinos de Andalucía: de Fernando III a Las Reyes Católicos* (Madrid, 2017)

H. Chaunu and P. Chaunu, *Seville et l'Atlantique (1504–1650)*, 12 vols (Paris, 1959)

G. Chet, 'Britain and America 1650–1850: Harmonising Government and Commerce', in A.L. Leonard ed., *Marine Insurance: Origins and Institutions: 1300–1850* (Basingstoke, 2015): 249–268

S.J. Choi, G.M. Gulati, and R.E. Scott, 'The Black Hole Problem in Commercial Boilerplate', *Duke Law Journal*, 67/1 (2017): 1–77

E. Chevreau, 'La lex Rhodia de iactu: un exemple de la réception d'une institution étrangère dans le droit romain', *Legal History Review*, 73 (2005): 67–80

J.J. Chiner Gimeno and J.P. Galiana Cachón, 'Del «Consolat de mar» al «Libro llamado Consulado de mar»: aproximación histórica', Eidem, *Libro llamado Consulado de mar (Valencia, 1539)* (Valencia, 2003): 7–42

A.E. Christensen, *Dutch Trade to the Baltic About 1600* (Copenhagen, 1941)

F. Ciciliot, 'Le navi di Varazze', in L. Gatti and F. Ciciliot eds., *Costruttori e navi. Maestri d'ascia e navi di Varazze al tempo della Repubblica di Genova (secoli XVI–XVIII)* (Genoa, 2004): 83–153

A. Cicchetti and R. Mordenti eds., *I libri di famiglia in Italia*, vol. 1: *Filologia e storiografia letteraria* (Rome, 1985); vol. 2: *Geografia e storia* (Rome, 2001)

C. Cipolla, *Il burocrate e il marinaio: La 'Sanità' Toscana e le tribolazioni degli inglesi a Livorno nel XVII secolo* (Bologna, 1992)

B. Clavero, 'La Monarquía, el Derecho y la Justicia', in *Instituciones de la España Moderna. Las Jurisdicciones* (Madrid, 1996): 15–38

———. 'Anatomía de España. Derechos hispanos y derecho español entre fueros y códigos', in *Hispania. Entre derechos propios y derechos nacionales* (Milan, 1989): 47–86

R.H. Coase, 'The Nature of the Firm', *Economica*, 16/4 (1937): 386–405

G. Coen, 'Il contratto di cambio marittimo nella piazza di Ancona nel Settecento attraverso gli atti notarili', *Quaderni storici delle Marche*, 2/1 (1967): 66–77

E.E. Cohen, *Athenian Economy & Society: A Banking Perspective* (Princeton, 1992)

A. Collantes de Terán Sánchez, 'El Guadalquivir y la Andalucía medieval', *Andalucía en la historia*, 62 (2018): 14–17

A. Cordes, 'Lex Maritima? Local, Regional and Universal Maritime Law in the Middle Ages', in W. Blockmans, M. Krom, and J. Wubs-Mrozewicz eds., *The Routledge Handbook of Maritime Trade Around Europe 1300–1600: Commercial Networks and Urban Autonomy* (Abingdon–New York, 2017): 69–85

———. 'The Search for a Medieval *Lex mercatoria*', *Oxford U Comparative L Forum* 5 (2003), available at: https://ouclf.law.ox.ac.uk/category/authors/albrecht-cordes/ (last accessed 18 December 2021)

A. Cordes and P. Höhn, 'Extra-Legal and Legal Conflict Management Among Long-Distance Traders (1250–1650)', in H. Pihlajamäki et al. eds., *The Oxford Handbook of European Legal History* (Oxford, 2018): 509–528

R. Cornah, 'The Road to Vancouver: The Development of the York–Antwerp Rules', *Journal of International Maritime Law*, 10 (2004): 155–166

S. Corrieri, *Il consolato del mare. La tradizione giuridico-marittima del Mediterraneo attraverso un'edizione italiana del 1584 del testo originale catalano del 1484* (Rome, 2005)

K.S. Cook, R. Hardin, and M. Levi, *Cooperation Without Trust?* (New York, 2002)

S.M. Coronas González, *Fuero Juzgo de Juan de la Reguera Valdelomar, 1798* (Madrid, 2015)

———. 'La Ordenenza de seguros maritimos del Consulado de la Nacion de España en Brujas', *Anuario de Historia del Derecho español*, 54 (1984): 385–407

———. *Derecho mercantil castellano: dos estudios históricos* (Oviedo, 1979)

C. Costantini, *La Repubblica di Genova nell'età moderna* (Turin, 1978)

L. Couvreur, 'Recht en zeeverzekeringspraktijk in de 17e en 18e eeuwen', *Tijdschrift voor Rechtsgeschiedenis*, 16/2 (1939): 184–214

G. Dari-Mattiacci, O. Gelderblom, J. Jonker, and E.C. Perotti, 'The Emergence of the Corporate Form', *Journal of Law, Economics, and Organization*, 33/2 (2017): 193–236

J. Darsel, 'L'Amirauté de Bretagne. Des origines à la Révolution', in G. Le Bouëdec ed., *L'Amirauté en Bretagne. Des origines à la fin du XVIIIe siècle* (Rennes, 2012): 53–374

C. Dauverd, *Imperial Ambitions in the Early Modern Mediterranean: Genoese Merchants and the Spanish Crown* (New York, 2015)

C.L. Daveggia, 'L'intermediazione assicurativa nel Medioevo', *Assicurazioni*, 52 (1985): 326–372

K. Davids, 'Zekerheidsregelingen in de scheepvaart en het landtransport, 1500–1800', in J. van Gerwen and M.H.D. van Leeuwen eds., *Studies over zekerheidsarrangementen, risico's, risicobestrijding en verzekeringen in Nederland vanaf de Middeleeuwen* (Amsterdam, 1998)

R. Davis, *The Rise of the English Shipping Industry in the Seventeenth and Eighteenth Centuries* (St. John's Newfoundland, 2012 [1962])

———. 'Earnings of Capital in the English Shipping Industry, 1670–1730', *The Journal of Economic History*, 17/3 (1957): 409–425

W. Decock, 'In Defense of Commercial Capitalism: Lessius, Partnerships and the *Contractus Trinus*', Max Planck Institute for European Legal History Research Paper (2012-04), available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2162908&download=yes (last accessed 20 December 2021)

C. De Deo, 'Il consolato del mare: storia di un successo editoriale', in L. Guatri, C. De Deo, and G. Guerzoni eds., *Il Consolato e il portolano del Mare* (Milan, 2007)

L.G. de García Valdeavellano, *Curso de Historia de las Instituciones Españolas: de los orígenes al final Edad Media* (Madrid, 1970)

H.L.V. De Groote, *De Zee-assurantie te Antwerpen en te Brugge in de zestiende eeuw* (Antwerp, 1975)

A. Delis, 'Shipping Finance and Risks in Sea Trade During the French Wars: Maritime Loan Operations in the Republic of Ragusa', *International Journal of Maritime History*, 24/1 (2012): 229–242

D. Dell'Osa, 'La contabilità dei mercanti ragusei nel XVI secolo', in P. Pierucci ed., *La contabilità nel bacino del Mediterraneo (secc. XIV–XIX)* (Milan, 2009): 123–142

F.D. De Martino, 'Note di diritto romano marittimo, Lex Rhodia II e III', *Rivista del Diritto della Navigazione*, 4 (1938): 3–86

R. De Roover, 'The *Cambium Maritimum* Contract According to the Genoese Notarial Records of the Twelfth and Thirteenth Centuries', *Explorations in Economic History*, 7/1 (1969): 15–33

———. 'The Organization of Trade', in M.M. Postan, E.E. Rich, and E. Miller eds., *The Cambridge Economic History of Europe*, vol. 3: *Economic Organization and Policies in the Middle Ages* (Cambridge, 1963): 42–118

D. De ruysscher, 'Maxims, Principles and Legal Change: Maritime Law in Merchant and Legal Culture (Low Countries, 16th Century)', *Zeitschrift der Savigny-Stiftung für Rechtgeschichte, Ger.Abt.*, 138 (2021): 260–275

———. 'Conceptualizing *Lex Mercatoria*: Malynes, Schmitthoff and Goldman Compared', *Maastricht Journal of European and Comparative Law*, 27/4 (2020): 465–483

———. 'How Normative Were Merchant Guidebooks? Of Customs, Practices, and… Good Advice (Antwerp, Sixteenth Century)', in H. Pihlajamäki, A. Cordes, S. Dauchy, and D. De ruysscher eds., *Understanding the Sources of Early Modern and Modern Commercial Law: Courts, Statutes, Contracts, and Legal Scholarship* (Leiden, 2018): 145–165

———. 'Antwerp 1490–1590: Insurance and Speculation', in A.L. Leonard ed., *Marine Insurance: Origins and Institutions: 1300–1850* (Basingstoke, 2015): 79–105

———. 'Van kade naar stadhuis: informatieuitwisseling, fraudebestrijding en gereglementeerde innovatie in Antwerpse zeeverzekeringen (ca. 1550–ca. 1700)', *Tijdschrift voor Geschiedenis*, 125/3 (2012): 366–383

———. *"Naer het Romeinsch recht alsmede den stiel mercantiel". Handel en recht in de Antwerpse rechtbank (16^e–17^e eeuw)* (Kortrijk, 2009)

D. De ruysscher and J. Puttevils, 'The Art of Compromise, Legislative Deliberations on Marine Insurance Institutions', *BMGN-Low Countries Historical Review*, 130/3 (2015): 25–49

H. De Schepper, 'De Grote Raad van Mechelen, hoogste rechtscollege in de Nederlanden?', *Bijdragen en Mededelingen voor de Geschiedenis der Nederlanden*, 93/3 (1978): 389–411

D. Dessert, *Argent, pouvoir et société au Grand Siècle* (Paris, 1984)

L. M. Devic, *Dictionnaire étymologique des mots français d'origine orientale* (Paris: Imprimerie Nationale, 1876)

P. De Vincentiis, F. Culasso, and S.A. Cerrato eds., *The Future of Risk Management*, vol. I: *Perspectives on Law, Healthcare, and the Environment* (Cham, 2019)

M. del Treppo, 'Assicurazioni e commercio internazionale a Barcellona 1428–1429', *Rivista storica italiana*, 69 (1957): 508–541

———. *I mercanti catalani e l'espansione della corona d'Aragona nel secolo XV* (Naples, 1972)

J.M. Díaz Blanco, 'La Carrera de Indias (1650–1700): Continuidades, rupturas, replanteamientos', in *E-Spania*, 29 (2018), available at: https://journals.openedition.org/e-spania/27539 (last accessed 20 December 2021)

———. *Así trocaste tu gloria. Guerra y comercio colonial en la España del siglo XVII* (Madrid, 2012)

F. Diegarten, 'Time Out of Joint—Time Set Right: Principles of Form in Haydn's Symphony No. 39', *Studia Musicologica*, 51/1–2 (2010): 109–126

B. Dini, *Una pratica di mercatura in formazione (1394–1395)* (Florence, 1980)

R. Di Tucci, 'Consuetudini marittime del Medio Evo italiano nella redazione del Libro del Consolato del Mare', in L.A. Senigallia ed., *Atti della mostra bibliografica e convegno internazionale di studi storici del Diritto marittimo medioevale* (Naples, 1934): 129–138

———. 'La ricchezza privata e il debito pubblico di Genova nel secolo decimottavo', *Atti della Società Ligustica di Scienze e Lettere*, n.s., XI/1 (1932): 1–63

R. Doehaerd, 'Chiffres d'assurance à Gênes en 1427–1428', *Revue belge de Philologie et d'Histoire*, 27 (1949): 736–756

N.A. Doherty, 'Some Fundamental Theorems of Risk Management', *The Journal of Risk and Insurance*, 42/3 (1975): 447–460

G. Doria, 'La gestione del porto di Genova dal 1550 al 1797', G. Doria, P. Massa, and V. Piergiovanni eds., *Il sistema portuale della repubblica di Genova. Profili organizzativi e politica gestionale (secc. XII–XVIII)* (Genoa, 1988): 135–198

C.-O. Doron, 'The Experience of Risk: Genealogy and Transformations', in A. Burgess, A. Alemanno, and J. Zinn eds., *Routledge Handbook of Risk Studies* (Abingdon–New York, 2016): 17–26

T. Dos Santos Arnold, *Shipwrecks of the "Carreira da Índia" (1595–1623)—Sources for the Study in Portuguese Maritime History* (Unpublished MA thesis, University of Lisbon, 2014)

C. Doumas, 'Νόμος Ροδίων Ναυτικός: The Contribution of the Aegean Islands to International Maritime Affairs', in C. Papageorgiadou-Banis and A. Giannikouri eds., *Sailing in the Aegean, Readings on the Economy and Trade Routes* (Athens, 2008): 77–88

G.P. Dreijer, *The Power and Pains of Polysemy: General Average, Maritime Trade and Normative Practice in the Southern Low Countries (Fifteenth–Sixteenth Centuries)* (Unpublished PhD thesis, University of Exeter-VUB, 2021)

———. 'Maritime Averages and the Complexity of Risk Management in Sixteenth-Century Antwerp', *TSEG/Low Countries Journal of Social and Economic History*, 17/2 (2020): 31–54

G.P. Dreijer and O. Vervaart, 'Een Tractaet van Avarien—1617', *Pro Memorie*, 21/2 (2019): 38–41

J. Dumolyn and B. Lambert, 'Cities of Commerce, Cities of Constraints: International Trade, Government Institutions and the Law of Commerce in Later Medieval Bruges and the Burgundian State', *Tijdschrift voor Sociale en Economische Geschiedenis*, 11/4 (2014): 89–102

A. Duro, *Vocabolario della Lingua Italiana* (Rome, 1986)

J.A. Dyble, *General Average in the Free Port of Livorno, 1600–1700* (Unpublished PhD thesis, University of Exeter and Università di Pisa, 2021)

J.M. Edelstein, 'Some Early Editions of the "Consulate of the Sea"', *The Papers of the Bibliographical Society of America*, 51/2 (1957): 119–125

F. Edler de Roover, 'Early Examples of Marine Insurance', *The Journal of Economic History*, 5 (1945): 172–200

I. Ehrlich and G. S. Becker, '*Market Insurance*, Self-*Insurance*, and Self-Protection', *The Journal of Political Economy*, 80/4 (1972): 623–648

J.E. Elias, *De Vroedschap van Amsterdam 1578–1795*, 2 vols (Amsterdam, 1963)

———. *Geschiedenis van het Amsterdamse Regentenpatriciaat* (The Hague, 1923)

P. Emmer, '*Mare Liberum*, *Mare Clausum*: Oceanic Shipping and Trade in the History of Economic Thought', in C. Buchet and G. Le Bouëdec eds., *The Sea in History—The Early Modern World* (Woodbridge, 2017): 671–678

M.C. Engels, *Merchants, Interlopers, Seamen and Corsairs: The 'Flemish' Community in Livorno and Genoa (1615–1635)* (Verloren, 1997)

J. Enríquez Fernández et al. eds., *Ordenanzas municipales de Bilbao (1477–1520)* (San Sebastián–Donostia, 1995)

———. *Libro de Acuerdos y Decretos Municipales de la Villa de Bilbao (1509–1515)* (Donostia, 1995)

S.R. Epstein, *Freedom and Growth: The Rise of States and Markets in Europe, 1300–1750* (London, 2000)

J.I. Erkoreka Gervasio, *Análisis histórico-institucional de las cofradías de mareantes del País Vasco* (Vitoria, 1991)

R.V. Ericson and A. Doyle eds., *Risk and Morality* (Toronto, 2003)

R. Fagel, *De Hispano-Vlaamse wereld: de contacten tussen Spanjaarden en Nederlanders 1496–1555* (Nijmegen, 1996)

L. Favali, *Qirad Islamico: Commenda Medievale e Strategie Culturali Dell'Occidente* (Turin, 2004)

G. Favero, 'A New Edition of Benedetto's Cotrugli the Book of the Art of Trade', in C. Carraro and G. Favero eds., *Benedetto Cotrugli: The Book of the Art of Trade* (London, 2017): 9–19

E.A. Feldman, 'The Tuna Court Law and Norms in the World's Premier Fish Market', *California Law Review*, 94 (2006): 313–369

G. Felloni, 'Genova e il capitalismo finanziario dalle origini all'apogeo (secc. X–XVIII)', *Atti della Società Ligure di Storia Patria*, n.s. LVI (2016): 71–90

———. 'Organización portuaria, navegación y tráfico en Génova: un sondeo entre las fuentes de la Edad Moderna', in L. A. Ribot García and L. De Rosa eds., *Naves, puertos e itinerarios marítimos en la Época Moderna* (Madrid, 2003): 237–267

———. 'Il ceto dirigente a Genova nel secolo XVII: governanti o uomini d'affari?', *Atti della Società Ligure di Storia Patria*, 38 (1998): 1323–1340

———. 'Per la storia della popolazione di Genova nei secoli XVI e XVII', in his *Scritti di Storia Economica*, 2 vols (Genoa, 1998): 1177–1197

———. 'Una fonte inesplorata per la storia dell'economia marittima in età moderna: i calcoli di avaria', in J. Schneider ed., *Wirtschaftkräfte und Wirtschaftswege. Festschrift für Hermann Kellenbenz*, vol. 2: *Wirtschaftkräfte in der europäischen Expansion* (Stuttgart, 1978): 37–57

———. 'Profilo economico della moneta Genovese dal 1139 al 1814', in G. Felloni and G. Pesce eds., *Le monete genovesi. Storia, arte ed economia delle monete di Genova dal 1139 al 1814* (Genoa, 1975): 193–358

———. *Gli investimenti finanziari genovesi in Europa tra il Seicento e la Restaurazione* (Milan, 1971)

G. Felloni ed., *Moneta, credito e banche in Europa. Un millennio di Storia* (Genoa, 1997)

A. B. Fernández Castro, 'Entre la ley y la justicia: una aproximación a la cultural jurisdiccional castellana del siglo XVI a través de la experiencia de la Casa de la Contratación de Sevilla y del Consejo de Indias', *Historia Instituciones Documentos*, 44 (2017): 77–101

———. *Juzgar las Indias. La práctica de la jurisdicción de los oidores de la audiencia de la Casa de la Contratación de Sevilla (1583–1598)* (Unpublished PhD thesis, European University Institute, 2015)

———. 'A Transnational Empire Built on Law: The Case of the Commercial Jurisprudence of the House of Trade of Seville (1583–1598)', in T. Duve ed.,

Entanglements in Legal History: Conceptual Approaches (Frankfurt, 2014): 187–212

———. '¿Quitarse de pleitos? Litigiosidad mercantil y práctica arbitral en la Carrera de Indias a finales del siglo XVI', *Revista de Indias*, 79/275 (2019): 51–77

C. Fernández Duro, *Armada Española (desde la unión de los reinos de Castilla y Aragón)*, 9 vols (Madrid: Sucesores de Rivadeneyra, 1895–1903)

F. Fernández López, 'El proceso de admisión de maestres de navíos en la Casa de la Contratación: expedientes y procedimiento', *Anuario de Estudios Americanos*, 75 (2018): 43–66

V. Ferrandino, *Il Monte pio dei marinai di Torre del Greco. Tre secoli di attività al servizio dei corallari (secc. XVII–XX)* (Milan, 2008)

S. Ferret, *Le Bateau de Thésée. Le problème de l'identité à travers le temps* (Paris, 1996)

J.P. Filippini, *Il porto di Livorno e la Toscana (1676–1814)*, 2 vols (Naples, 1998)

A. Fiorentino, *Il commercio delle pelli lavorate nel Basso Medioevo. Risultati dall'Archivio Datini di Prato* (Florence, 2015)

M. Fitzmaurice, N. Martinez, I. Arroyo, and E. Belja eds., *The IMLI on International Maritime Law*, vol. II: *Shipping Law* (Oxford, 2016)

M. Flores Díaz, *Hombres, barcos e intercambios. El derecho del siglo XIII en Castilla y Aragón* (Madrid, 1998)

G. Forcheri, *Doge, governatori, procuratori, consigli e magistrati della repubblica di Genova* (Genoa, 1968)

N.H.D. Foster, 'Islamic Perspectives on the Law of Business Organisations I: An Overview of the Classical Sharia and a Brief Comparison of the Sharia Regimes with Western-Style Law', *European Business Organization Law Review*, 11 (2010): 3–34

R. Franci, 'Una soluzione esatta del problema delle parti in un manoscritto della prima metà del Quattrocento', *Bollettino di Storia delle Scienze Matematiche*, 22/2 (2002): 260–265

E. Frankot, *'Of Laws of Ships and Shipmen': Medieval Maritime Law and Its Practice in the Towns of Northern Europe* (Edinburgh, 2012)

———. 'Medieval Maritime Law from Oléron to Wisby: Jurisdictions in the Law of the Sea', in J. Pan-Montojo and F. Pedersen eds., *Communities in European History: Representations, Jurisdictions, Conflicts* (Pisa, 2007): 151–172

L. Frattarelli Fischer, *L'arcano del mare: un porto nella prima età globale: Livorno* (Pisa, 2018)

———. 'Lo sviluppo di una città portuale: Livorno, 1575–1720', in M. Folin ed., *Sistole/Diastole: Episodi di trasformazione urbana nell'Italia delle città* (Venice, 2006): 271–334

———. 'Livorno 1676. La città e il porto franco', in F. Angiolini, V. Becagli, and M. Verga eds., *La Toscana nell'età di Cosimo III* (Florence, 1993): 45–66

L. Freire Costa, 'Privateering and Insurance: Transaction Costs in Seventeenth-Century European Colonial Flows', in S. Cavaciocchi ed., *Ricchezza del mare, ricchezza dal mare, secc. XIII–XVIII* (Florence, 2007): 703–726

R.Z. Friedman, *Probable Justice: Risk, Insurance, and the Welfare State* (Chicago, 2020)

M. Fusaro, *The Making of a Global Labour Market, 1573–1729: Maritime Law and the Political Economy of the Early Modern Mediterranean* (Forthcoming with Cambridge University Press)

———. 'Migrating Seamen, Migrating Laws? An Historiographical Genealogy of Seamen's Employment and States' Jurisdiction in the Early Modern Mediterranean', in S. Gialdroni et al. eds., *Migrating Words, Migrating Merchants, Migrating Law* (Leiden, 2019): 54–83

———. 'The Invasion of Northern Litigants: English and Dutch Seamen in Mediterranean Courts of Law', in M. Fusaro, B. Allaire, R.J. Blakemore, and T. Vanneste eds., *Law, Labour and Empire: Comparative Perspectives on Seafarers, c. 1500–1800* (Basingstoke, 2015): 21–42

———. 'Public Service and Private Trade: Northern Seamen in Seventeenth Century Venetian Courts of Justice', *The International Journal of Maritime History*, 27 (2015): 3–25

———. *Political Economies of Empire in the Early Modern Mediterranean: The Decline of Venice and the Rise of England 1450–1700* (Cambridge, 2015)

———. 'Politics of Justice/Politics of Trade: Foreign Merchants and the Administration of Justice from the Records of Venice's Giudici del Forestier', *Mélanges de l'Ecole Francaise de Rome*, 126 (2014): 139–160

———. 'The Burden of Risk: Early Modern Maritime Enterprise and Varieties of Capitalism', *Business History Review*, 94 (2020): 179–200

M. Fusaro and A. Addobbati, 'The Grand Tour of Mercantilism: Lord Fauconberg and His Italian mission (1669–1671)', *The English Historical Review*, 137 (2022): 692–727

M. Fusaro, B. Allaire, R.J. Blakemore, and T. Vanneste eds., *Law, Labour and Empire: Comparative Perspectives on Seafarers, c. 1500–1800* (Basingstoke, 2015)

F. Gallo, *Interpretazione e formazione consuetudinaria del diritto: lezioni di diritto romano* (Turin, 1993)

A. García-Baquero González, *Cádiz y el Atlántico: 1717–1778: el comercio colonial español bajo el monopolio gaditano* (Cádiz, 1998)

J.A. García de Cortázar, *Vizcaya en el siglo XV: aspectos económicos y sociales* (Bilbao, 1966)

E. García de Quevedo y Concellón ed., *Las ordenanzas del Consulado de Burgos de 1538* (Burgos, 1905)

E. Garcia Fernández, 'Por bien y utilidad de los dichos maestres, pescadores y navegantes: trabajo, solidaridad y acción política en las cofradías de las

gentes de la mar en la España atlántica medieval)', *Medievalismo: Boletín de la Sociedad Española de Estudios Medievales*, 26 (2016): 329–356

———. 'Las ordenanzas de la Cofradía de Mareantes de San Vicente de la Barquera (1330–1537): un ejemplo temprano de institución para la acción colectiva en la Costa Cantábrica en la Edad Media', *Anuario de Historia del Derecho Español*, LXXXI (2011): 1029–1050

———. 'Las cofradías de mercaderes. mareantes y pescadores vascos en la Edad Media', in J.Á. Solórzano Telechea et al. eds., *Ciudades y villas portuarias del Atlántico en la Edad Media* (Logroño, 2005): 257–294

———. 'Las cofradías de oficios en el País Vasco durante la Edad Media (1350–1550)', *Studia historica. Historia medieval*, 15 (1997): 11–40

L. García Fuentes, *El comercio español con América (1650–1700)* (Seville, 1980)

M. García Garralón, *La Universidad de Mareantes de Sevilla (1569–1793)* (Seville, 2007)

J.M. García Redondo, *Cartografía e Imperio. El Padrón Real y la representación del Nuevo Mundo* (Madrid, 2018)

A. García Sanz, 'Estudios sobre los orígenes del Derecho Marítimo hispano-mediterráneo', *Anuario de Historia del Derecho Español*, XXXIX (1969): 213–316

———. 'El derecho maritimo preconsular', *Boletin de la Sociedad Castellonense de Cultura*, 36 (1960): 47–74

L. Gatti, *Navi e cantieri della Repubblica di Genova (secoli XVI)* (Genoa, 1999)

G.M. Gauci, 'Of Piracy and General Average: Contribution in General Average for Ransom Payment Occasioned by Piratical Activity', *Journal of Maritime Law and Commerce*, 50/2 (2019): 235–255

O. Gelderblom, *Cities of Commerce, the Institutional Foundations of International Trade in the Low Countries, 1250–1650* (Princeton, 2013)

———. *Zuid-Nederlandse kooplieden en de opkomst van de Amsterdamse stapelmarkt (1578–1630)* (Hilversum, 2000)

O. Gelderblom, A. de Jong, and J. Jonker, 'Learning How to Manage Risk by Hedging: The VOC Insurance Contract of 1613', *European Review of Economic History*, 24 (2020): 332–355

Pieter Génard, 'Jean-Baptiste Ferrufini et les assurances maritimes à Anvers au XVIe siècle', *Bulletin de la Société de géographie d'Anvers*, 7 (1882): 193–268

R. Ghezzi, 'Il porto di Livorno e il commercio mediterraneo nel Seicento', in A. Prosperi ed., *Livorno 1606–1806: luogo di incontro tra popoli e culture* (Turin, 2009): 324–340

———. *Livorno e il mondo islamico nel XVII secolo. Naviglio e commercio di importazione* (Bari, 2007)

A. Ghiselli, 'Greco abarês, neogreco abaros e l'italiano «avaria»', *Paideia*, 8 (1953): 365–368

G. Giacchero, *Storia delle assicurazioni marittime. L'esperienza genovese dal Medioevo all'età contemporanea* (Genoa, 1984)

———. *Il Seicento e le Compere di San Giorgio* (Genoa, 1979)

———. *Economia e società del Settecento genovese* (Genoa, 1973)

———. *Origini e sviluppo del portofranco genovese* (Genoa, 1972)

J. Gillissen, 'Phases de la codification et de l'homologation des coutumes dans les XVII provinces des Pays-Bas', *Tijdschrift voor Rechtsgeschiedenis*, 18 (1950): 36–67

D. Gioffrè, 'Il commercio d'importazione genovese alla luce dei registri del dazio (1495–1537)', in *Studi in onore di Amintore Fanfani*, 6 vols (Milan, 1962): 5:113–242

A. Gkoutzioukostas, 'Administrative Structures of Byzantium During the Eleventh Century: Officials of the Imperial Secretariat and Administration of Justice', in B. Flusin and J.-C. Cheynet eds., *Travaux et Mémoires: Autour du Premier humanisme byzantine & des Cinq études sur le XIe siècle, quarante ans après Paul Lemerle* (Paris, 2017): 561–580

J. Gil Sáez, J.D. González Arce, and R. Hernández García, 'El comercio de los puertos vascos en la primera mitad del siglo XVI a partir de los contratos de fletamento', *Investigaciones históricas: Época moderna y contemporánea*, 33 (2013): 37–62

L. Gilliodts Van Severen, *Cartulaire de l'ancien consulat d'Espagne à Bruges: recueil de documents concernant le commerce maritime et intérieur, le droit des gens public et privé, et l'histoire économique de la Flandre*, 2 vols (Bruges, 1901)

R.J. Gilson, C.F. Sabel, and R.E. Scott, 'Braiding: The Interaction of Formal and Informal Contracting in Theory, Practice and Doctrine', *Columbia Law Review*, 110/6 (2010): 1377–1447

A. Glennie, 'Lowndes & Rudolf: General Average and York–Antwerp Rules', *Edinburgh Law Review*, 23/3 (2019): 461–462

S.C.P.J. Go, 'Governance of General Average in the Netherlands in the Nineteenth Century: A Backward Development', in P. Hellwege and G. Rossi eds., *Maritime Risk Management: Essays on the History of Marine Insurance, General Average and Sea Loan* (Berlin, 2021): 247–263

———. 'On Governance Structures and Maritime Conflict Resolution in Early Modern Amsterdam: The Case of the Chamber of Insurance and Average (Sixteenth to Eighteenth Centuries)', *Comparative Legal History*, 5/1 (2017): 107–124

———. 'The Chamber of Insurance and Average: A New Phase in Formal Contract Enforcement (Late Sixteenth and Seventeenth Centuries)', *Enterprise & Society*, 14/3 (2013): 511–543

———. 'The Amsterdam and Rotterdam Insurance Markets in the Sixteenth to the Eighteenth Century: Inertia Versus Adaptability', *International Journal of Maritime History*, 23/2 (2011): 85–110

———. *Marine Insurance in the Netherlands 1600–1870: A Comparative Institutional Approach* (Amsterdam, 2009)

———. 'Amsterdam 1585–1790: Emergence, Dominance, and Decline', in A.L. Leonard ed., *Marine Insurance: Origins and Institutions: 1300–1850* (Basingstoke, 2015): 107–129

S.D. Goitein, *A Mediterranean Society: The Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza—Economic Foundations*, 6 vols (Berkeley, 1967–1993)

———. *Letters of Medieval Jewish Traders* (Princeton, 1973)

———. 'Jewish Trade in the Mediterranean at the Beginning of the Eleventh Century' [in Hebrew], *Tarbiz*, 36/1 (1967): 366–395

J.L. Goldberg, *Trade and Institutions in the Medieval Mediterranean: The Geniza Merchants and their Business World* (Cambridge, 2012)

L. Goldschmidt, '*Lex Rhodia und Agermanament:* Der Schiffsrath – Studie zur Geschichte und Dogmatik des Europäischen Seerechts', *ZHR* (*Zeitschrift für das gesamte Handelsrecht*), 35 (1888): 37–90, 321–395

R. Goldthwaite, *The Economy of Renaissance Florence* (Baltimore, 2009)

J.D. González Arce, 'La universidad de mercaderes de Burgos y el consulado castellano en Brujas durante el siglo XV', *En la España Medieval*, 33 (2010): 161–202

———. 'La ventaja de llegar primero. Estrategias en la pugna por la supremacía mercantil durante los inicios de los consulados de Burgos y Bilbao (1450–1515)', *Miscelánea Medieval Murciana*, 33 (2009): 77–97

J.D. González Arce and R. Hernández García, 'Transporte naval y envío de flotas comerciales hacia el norte de Europa al Cantábrico Oriental (1500–1550)', *Espacio, Tiempo y Forma. Serie Historia Moderna*, 24 (2011): 51–87

R. González Arévalo, 'Integración y movilidad social de los italianos en la Corona de Castilla: genoveses, florentinos y venecianos en la Andalucía Bajomedieval', in L. Tanzini and S. Tognetti eds., *Competenze, conoscenze e mobilità sociale nell'Italia del Basso Medievo* (Rome, 2016): 375–401

———. 'La integración de los italianos en las sociedades portuarias andaluzas (siglos XIII–XV)', in J.Á. Solórzano Telechea et al. eds., *Las sociedades portuarias de la Europa Atlántica en la Edad Media* (Logroño, 2016): 249–284

Y. González de Lara, 'Business Organization and Organizational Innovation in Late Medieval Italy', in H. Wells ed., *Research Handbook on the History of Corporate and Company Law* (Cheltenham, 2018): 65–87

M. Th. Goudsmit, *Geschiedenis van het Nederlandsche Zeerecht* ('s-Gravenhage: Martinus Nijhoff, 1882)

R. Grafe and O. Gelderblom, 'The Rise and Fall of the Merchant Guilds: Re-Thinking the Comparative Study of Commercial Institutions in Premodern Europe', *Journal of Interdisciplinary History*, 40/4 (2010): 477–511

A. Greif, *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade* (Cambridge, 2006)

———. 'On the Interrelations and Economic Implications of Economic, Social, Political and Normative Factors: Reflections from Two Late Medieval Societies', in J.N. Drobak and J.V.C. Nye eds., *The Frontiers of the New Institutional Economics* (San Diego, 1997): 57–94

E. Grendi, *Introduzione alla storia moderna della Repubblica di Genova* (Genoa, 1973)

———. 'I nordici e il traffico del porto di Genova: 1590–1666', *Rivista Storica Italiana*, 83 (1971): 23–71

———. 'Genova alla metà del Cinquecento: una politica del grano?', *Quaderni storici*, 5/13 (1970): 106–160

———. 'Traffico portuale, naviglio mercantile e consolati genovesi nel Cinquecento', *Rivista Storica Italiana*, 80 (1968): 593–638

M. Grinberg, *Écrire les coutumes. Les droits seigneuriaux en France* (Paris, 2006)

S. Gruzinsky, *Las cuatro partes del mundo. Historia de una mundialización* (México, 2010)

T. Guiard y Larrauri, *Historia del Consulado y Casa de Contratación de la villa de Bilbao*, 2 vols (Bilbao, 1972)

I. Hacking, *The Emergence of Probability: A Philosophical Study of Early Ideas About Probability, Induction and Statistical Inference* (Cambridge, 1975)

L. Hannah, 'Marshall's "Trees" and the Global "Forest": Were "Giant Redwoods" Different?', in N.R. Lamoreaux, D.M.G. Raff, and P. Temin eds., *Learning by Doing in Markets, Firms, and Countries* (Chicago, 1999): 253–293

C.H. Haring, *Trade and Navigation Between Spain and the Indies in the Time of the Hapsburgs* (Cambridge, MA, 1918)

———. *Comercio y navegación entre España y las Indias en la época de los Habsburgo* (México, 1979)

R. Harris, *Going the Distance: Eurasian Trade and the Rise of the Business Corporation, 1400–1700* (Princeton, 2020)

———. 'A New Understanding of the History of Limited Liability: An Invitation for Theoretical Reframing', *Journal of Institutional Economics*, 16/5 (2020): 643–664

M. Harvey, *The York–Antwerp Rules: The Principles and Practice of General Average Adjustment* (Boca Raton, 2014)

N.E. Hatzimihail, 'The Many Lives—And Faces—Of *Lex Mercatoria*: History as Genealogy in International Business Law', *Law and Contemporary Problems*, 71/3 (2008): 169–190

T.K. Heebøll-Holm, 'Law, Order and Plunder at Sea: A Comparison of England and France in the Fourteenth Century', *Continuity and Change*, 32/1 (2017): 37–58

E. Heijmans, *The Agency of Empire: Connections and Strategies in French Overseas Expansion (1686–1746)* (Leiden, 2019)

D. Heirbaut and D. De ruysscher, 'Belgium', in P. Hellwege ed., *Comparative History of Insurance Law in Europe: A Research Agenda* (Berlin, 2018): 89–132

P. Hellwege ed., *The Past, Present, and Future of Tontines: A Seventeenth Century Financial Product and the Development of Life Insurance* (Berlin, 2018)

P. Hellwege and G. Rossi eds., *Maritime Risk Management: Essays on the History of Marine Insurance, General Average and Sea Loan* (Berlin, 2021)

M. Herrero Sánchez et al. eds., *Génova y la Monarquía Hispánica (1528–1613)* (Genoa, 2011)

A.M. Hespanha, *La gracia del derecho: economía de la cultura en la edad moderna* (Madrid, 1993)

G.M. Hodgson, 'Frank Knight as an Institutional Economist', in J.E. Biddle et al. eds., *Economics Broadly Considered: Essays in Honor of Warren J. Samuels* (London, 2001): 64–93

R. Holzmann and S. Jørgensen, 'Social Risk Management: A New Conceptual Framework for Social Protection, and Beyond', *International Tax and Public Finance*, 8/4 (2001): 529–556

I. Hont, *Jealousy of Trade: International Competition and the Nation-State in Historical Perspective* (Cambridge, MA, 2010)

C.B. Hoover, 'The Sea Loan in Genoa in the Twelfth Century', *The Quarterly Journal of Economics*, 40/3 (1926): 495–529

J. Horn, *Economic Development in Early Modern France: The Privilege of Liberty, 1650–1820* (Cambridge, 2015)

G. Hudson and M. Harvey eds., *The York–Antwerp Rules*, 3rd ed. (London, 2010)

M. Humphreys ed., *The Laws of the Isaurian Era: The Ecloga and Its Appendices* (Liverpool, 2017)

L. Hyman, *Debtor Nation: The History of America in Red Ink* (Princeton, 2011)

A. Iglesia-Ferreiros, 'La formacion de los libros de consulado de mar', *Initium*, 2 (1997): 1–372

D. Igual Luis and G. Navarro Espinach, 'Los genoveses en España en el tránsito del siglo XV al XVI', *Historia. Instituciones. Documentos*, 24 (1997): 261–332

A. Iodice, *Averages and Seaborne Trade in Early Modern Genoa, 1590–1700* (Unpublished PhD thesis, University of Exeter and Università di Genova, 2021)

A. Iodice, 'Porto franco e capitani francesi a Genova (1590–1700)', in F. Ferrando, F. Fioriti, and A. Zappia eds., *Gli stranieri della Repubblica. Controllo, gestione e convivenza a Genova in età Moderna* (Genoa, forthcoming)

A. Iodice and L. Piccinno, 'Whatever the Cost: Grain Trade and the Genoese Dominating Minority in Sicily and Tabarka (16th–18th Centuries)', in L. Andreoni, L. Mocarelli, G. Ongaro, and D. Do Paço eds., *Minorities and Grain Trade in Early Modern Europe*, Special Issue—*Business History*, forthcoming

A. Iodice and L. Piccinno, 'Incertezza e rischio nel commercio marittimo. Le pratiche di avaria genovesi dagli studi di Giuseppe Felloni al database europeo AveTransRisk', *Quaderni della Società Ligure di Storia Patria* forthcoming

J. Israel, *The Dutch Republic, Its Rise, Greatness, and Fall 1477–1806* (Oxford, 1998)

D. Jacoby, 'Western Commercial and Colonial Expansion in the Eastern Mediterranean and the Black Sea in the Late Middle Ages', in G. Ortalli and A. Sopracasa eds., *Rapporti mediterranei, pratiche documentarie, presenze veneziane. Le reti economiche e culturali (XIV–XVI secolo)* (Venice, 2017): 3–49

C. Jahnke, 'Lübeck and the Hanse: A Queen Without Its Body', in W. Blockmans, M. Krom, and J. Wubs-Mrozewicz eds., *The Routledge Handbook of Maritime Trade Around Europe 1300–1600: Commercial Networks and Urban Autonomy* (Abingdon–New York, 2017): 231–247

A.H. John, 'The London Assurance Company and Marine Insurance Market of the Eighteenth Century', *Economica*, n. s., 25 (1958): 126–141

A.H. Johns, 'Jonah in the Qurʾān: An Essay on Thematic Counterpoint', *Journal of Qurʾānic Studies*, 5/2 (2003): 48–71

E. Kadens, 'Convergence and the Colonization of Custom in Pre-Modern Europe', in O. Moréteau, A. Masferrer, and K.A. Modéer eds., *Comparative Legal History* (Cheltenham, 2019): 167–185

———. 'Convergence and the Colonization of Custom in Pre-Modern Europe', *Comparative Legal History*, 167 (2019): 167–185

———. 'The Myth of the Customary Law Merchant', *Texas Law Review*, 90 (2012): 1153–1206

H. and R. Kahane, 'Italo-byzantine etymologies, v. Avaria «average»', *Bollettino dell'atlante linguistico mediterraneo*, I (1959): 210–214

W. Kaiser and J. Petitjean eds., *Litigation and the Elements of Proof in the Mediterranean (16th–19th C.)*, special issue of *Quaderni Storici*, 153 (2016)

J.M. Keynes, *The General Theory of Employment, Interest and Money* (London, 1936)

H.S. Khalilieh, 'The *Lex Mercatoria Maritima*: An Abridgement of the Jurisprudential Principles of the Early Islamic Maritime *Qirāḍ*', *Comparative Studies of South Asia, Africa and the Middle East*, 40 (2020): 266–276

———. *Islamic Law of the Sea: Freedom of Navigation and Passage Rights in Islamic Thought* (Cambridge, 2019)

———. 'Islamic Laws of General Average', *Journal of Maritime Law and Commerce*, 50/3 (2019): 353–378

———. *Admiralty and Maritime Laws in the Mediterranean Sea (ca. 800–1050): The Kitāb Akriyat al-Sufun vis-à-vis the Nomos Rhodion Nautikos* (Leiden, 2006)

———. 'Human Jettison, Contribution for Lives, and Life Salvage in Byzantine and Early Islamic Maritime Laws in the Mediterranean', *Byzantion*, 75 (2005): 225–235

———. *Islamic Maritime Law: An Introduction* (Leiden, 1998)

T. Kiesselbach, 'Der Ursprung der rôles d'Oléron und des Seerechts von Damme', *Hansische Geschichtblätter*, 12 (1906): 1–60

C. Kingston, 'Governance and Institutional Change in Marine Insurance, 1350–1850', *European Review of Economic History*, 18/1 (2014): 1–18

———. 'Marine Insurance in Britain and America, 1720–1844: A Comparative Institutional Analysis', *The Journal of Economic History*, 67/2 (2007): 379–409

———. 'Intermediación y confianza', *Ekonomiaz*, 77/2 (2011): 64–85

T.A. Kirk, *Genoa and the Sea: Policy and Power in an Early Modern Maritime Republic (1559–1684)* (Baltimore, 2005)

———. 'Genoa and Livorno: Sixteenth and Seventeenth-Century Commercial Rivalry as a Stimulus to Policy Development', *History*, 86 (2002): 2–17

E. Kleiman, 'Externalities and Public Goods in the Talmud', in A. Levine ed., *Oxford Handbook of Judaism and Economics* (Oxford, 2010): 107–126

F.H. Knight, *Risk, Uncertainty, and Profit* (Boston, 1921)

F. Kracht, *Rotterdamer See-versicherungs-Börse: ihre Entwicklung, Bedeutung und Bedingungen* (Weimar, 1922)

D. Krallis, *Serving Byzantium's Emperors: The Courtly Life and Career of Michael Attaleiates* (London, 2019)

B. Krekić, 'Le port de Dubrovnik (Raguse), entreprise d'état, plaque tournante du commerce de la ville (XIII–XVI siècle)', in S. Cavaciocchi ed., *I porti come impresa economica* (Florence, 1988): 653–673

K.-F. Krieger, 'Die Entwicklung des Seerechts im Mittelmeerraum von der Antinke bis zum Consolat de Mar', *German Yearbook of International Law*, 16 (1973): 179–208

———. *Ursprung und Wurzeln der Rôles d'Oléron* (Cologne/Vienna, 1970)

J. Kruit, *General Average, Legal Basis and Applicable Law: The Overrated Significance of the York–Antwerp Rules* (Zutphen, 2017)

———. 'General Average—General Principle Plus Varying Practical Applications Equals Uniformity?', *Journal of International Maritime Law*, 21 (2015): 190–202

L. Kuncevic, 'The Maritime Trading Network of Ragusa (Dubrovnik) from the Fourteenth to the Sixteenth Century', in W. Blockmans, M. Krom, and J. Wubs-Mrozewicz eds., *The Routledge Handbook of Maritime Trade Around Europe 1300–1600: Commercial Networks and Urban Autonomy* (Abingdon–New York, 2017): 141–158

M.A. Ladero Quesada, 'El Almirantazgo de Castilla en la Baja Edad Media. Siglos XIII a XV', in *La institución del almirantazgo en España. XXVII Jornadas de Historia Marítima* (Madrid, 2003): 57–82

A. Laiou ed., *The Economic History of Byzantium: From the Seventh through the Fifteenth Century*, 3 vols (Washington, 2002)

A. Laiou-Thomadakis, 'The Byzantine Economy in the Mediterranean Trade System, 13th–15th Centuries', *Dumbarton Oak Papers*, 34/35 (1980/1): 177–222 (repr. in A. E. Laiou, *Gender, Society and Economic Life in Byzantium* [London, 1992], n. vii)

J. Lameere ed., *Recueil des ordonnances des Pays-Bas. Deuxième série, 1506–1700*, 6 vols (Brussels, 1922)

G. Landwehr, 'Seerecht im Hanseraum im 15. Jahrhundert: die Hanzerezesse, die Vonnesse von Damme und die Ordinancie der Zuidersee im Flandrischen Copiar Nr. 9', in C. Jahnke ed., *Seerecht im Hanseraum des 15. Jahrhunderts. Edition und Kommentar zur Flandrischen Copiar Nr. 9* (Lübeck, 2003): 95–117

———. *Das Seerecht der Hanse (1365–1614): vom Schiffordungsrecht zum Seehandelsrecht* (Hamburg, 2003)

———. *Die Haverei in den mittelalterlichten deutschen Seerechtsquellen* (Hamburg, 1985)

E.W. Lane, *Arabic-English Lexicon* (Beirut, 1980)

F.C. Lane, *Profits from Power: Readings in Protection Costs and Violence-Controlling Enterprises* (New York, 1979)

———. *Venice: A Maritime Republic* (Baltimore, 1973)

———. 'Family Partnerships and Joint Ventures', *Journal of Economic History*, 4 (1944): 178–196

A. Lefebvre D'Ovidio, 'La contribuzione alle avarie comuni dal diritto romano all'ordinanza del 1681', *Rivista del diritto della navigazione*, 1 (1935): 130–140

Y. Lemarchand, 'Comptabilité maritime (prêts à la grosse aventure). Prêts à la grosse aventure, profits aventureux (XVIIe s.–XVIIIe s.)', in D. Bensadon, N. Praquin, and B. Touchelay eds., *Dictionnaire historique de comptabilité des entreprises* (Villeneuve d'Ascq, 2016): 378–379

A.L. Leonard, 'Contingent Commitment: The Development of English Marine Insurance in the Context of New Institutional Economics, 1577–1720', in D'Maris Coffman, A.L. Leonard, and L. Neal eds., *Questioning Credible Commitment: Perspectives on the Rise of Financial Capitalism* (Cambridge, 2013): 48–75

———. 'Introduction: The Nature and Study of Marine Insurance', in A.L. Leonard ed., *Marine Insurance: Origins and Institutions: 1300–1850* (Basingstoke, 2015): 3–22

A.L. Leonard ed., *Marine Insurance: Origins and Institutions: 1300–1850* (Basingstoke, 2015)

D. Letsios, *Νόμος Ροδίων Ναυτικός. Das Seegesetz der Rhodier* (Rhodes, 1996)

C. Levillain, *Vaincre Louis XIV. Angleterre, Hollande, France: Histoire d'une relation triangulaire 1665–1688* (Seyssel, 2010)

J. Levy, *Freaks of Fortune: The Emerging World of Capitalism and Risk in America* (Cambridge, MA, 2012)

D. Liebs, 'D. 14,2,1 Auf einer Inschrift aus Rhodos', *Iuris Antiqui Historia, An International Journal on Ancient Law*, 10 (2018): 161–167

———. *Römische Jurisprudenz in Africa mit Studien zu den pseudopaulinischen Sentenzen* (Berlin, 1993)

———. 'Jurisprudenz', in K. Sallmann ed., *Handbuch der Lateinischen Literatur der Antike*, 4 vols (Munich, 1997): IV: 130–31

L. Lillie, 'Commercio, cosmopolitismo e modelli della modernità: Livorno nell'immaginario inglese a stampa, 1590–1750' in A. Addobbati and M. Aglietti eds., *La città delle nazioni: Livorno e i limiti del cosmopolitismo (1566–1834)* (Pisa, 2016): 337–357

L. Lo Basso, *Gente di bordo. La vita quotidiana dei marittimi genovesi nel XVIII secolo* (Rome, 2016)

———. 'Il finanziamento dell´armamento marittimo tra società e istituzioni: il caso ligure', *Archivio Storico Italiano*, 174/1 (2016): 81–107

———. 'The Maritime Loan as a Form of Small Shipping Credit (17th–18th Centuries): The Case of Liguria', in A. Giuffrida, R. Rossi, and G. Sabatini eds., *Informal Credit in the Mediterranean Area (XVI–XIX Centuries)* (Palermo, 2016): 145–173

L. Lobo-Guerrero, *Insuring War: Sovereignty, Security* (New York, 2012)

J.H.A. Lokin, F. Brandsma, and C. Jansen, *Roman-Frisian Law of the 17th and 18th Century* (Berlin, 2003)

R.S. Lopez, *The Commercial Revolution of the Middle Ages, 950–1350* (Cambridge, 1976)

———. 'The Cross Roads Within the Wall', in O. Handlin and J. Burchard eds., *The Historian and the City* (Cambridge, MA, 1963): 27–43

J.M. López Piñero, *El arte de navegar en la España del Renacimiento* (Barcelona, 1979)

Lowndes & Rudolf: General Average and York-Antwerp Rules, R.R. Cornah, R.C.G. Sarl, and J.B. Shead eds., 15th ed. (London, 2018)
M. Lucena Salmoral, 'Organización y defensa de la Carrera de Indias de Indias', in G.d.C. Boutet ed., *España América. Un océano de negocios. Quinto Centenario de la Casa de la Contratación 1503–2003* (Seville, 2003): 131–146
M. Luque Talaván, 'La avería en el tráfico marítimo-mercantil indiano: notas para su estudio (siglos XVI–XVIII)', *Revista Complutense de Historia de América*, 24 (1998): 113–145
E. Maccioni, *Il Consolato del mare di Barcellona. Tribunale e corporazione di mercanti, 1394–1462* (Rome, 2019)
———. 'Il ruolo del Consolato del Mare di Barcellona nella guerra catalano-aragonese contro i giudici d'Arborea', in O. Schena and S. Tognetti eds., *Commercio, finanza e guerra nella Sardegna tardomedievale* (Rome, 2017): 167–196
G. Maifreda, *From Oikonomia to Political Economy: Constructing Economic Knowledge from the Renaissance to the Scientific Revolution* (Farnham, 2012)
W.H. Maigne D'Arnis, *Lexicon Manuale Ad Scriptores Mediae Et Infimae Latinitatis* (Paris: L'Abbé Migne, 1866)
P. Malanima, *La fine del primato. Crisi e riconversione nell'Italia del Seicento* (Milan, 1998)
———. *La decadenza di un'economia cittadina: l'industria di Firenze nei secoli XVI–XVIII* (Bologna, 1982)
L. Mannori and B. Sori, *Storia del diritto amministrativo* (Rome, 2013)
S.F. Mansell and A.J.G. Sison, 'Medieval Corporations, Membership and the Common Good: Rethinking the Critique of Shareholder Primacy', *Journal of Institutional Economics*, 16 (2020): 579–595
F. Mansutti, 'La più antica disciplina del contratto di assicurazione: le Ordinanze sulle sicurtà marittime', *Assicurazioni: rivista di diritto, economia e finanza delle assicurazioni private*, LXXIV (2008): 683–692
G. Marcou, 'Nomos Rhodion Nautikos e la scoperta a Rodi di una colonna di marmo con l'iscrizione di Paolo (D 14 2)', in *Studi in onore di Lefebvre d'Ovidio* (Milan, 1995): 609–640
J. Maréchal, 'La colonie espagnole de Bruges du XIVe au XVIe siècle', *Revue du Nord*, 35/137 (1953): 5–40
O. Maridaki-Karatza, 'Legal Aspects of the Financing of Trade', in A. Laiou ed., *The Economic History of Byzantium: From the Seventh through the Fifteenth Century*, 3 vols (Washington, 2002): 1105–1120
M.E. Martín Acosta, 'Estado de la cuestión sobre la Avería en la historiografía española y americanista: la avería de 1602', *Revista de Indias*, 50/188 (1990): 151–160
A. Martini, *Manuale di metrologia* (Turin: E. Loescher, 1883)

S. Marzagalli, 'Trade Across Religious and Confessional Boundaries in Early Modern France', in F. Trivellato, L. Halevi, and C. Antunes eds., *Religion and Trade: Cross-Cultural Exchanges in World History, 1000–1900* (Oxford, 2014): 169–191

———. 'The French Atlantic and the Dutch, Late Seventeenth-Late Eighteenth Century', in G. Oostindie and J.V. Roitman eds., *Dutch Atlantic Connections, 1680–1800: Linking Empires, Bridging Borders* (Leiden–Boston, 2014): 103–118

P. Massa Piergiovanni, *Lineamenti di organizzazione economica in uno stato preindustriale. La Repubblica di Genova* (Genoa, 1995)

E. Mataix Ferrándiz, 'Will the Circle Be Unbroken? Continuity and Change of the *Lex Rhodia*'s Jettison Principles in Roman and Medieval Mediterranean Rulings', *Al Masāq*, 29/1 (2017): 41–59

N. Mazuin Sapuan, 'An Evolution of *Mudarabah* Contract: A Viewpoint from Classical and Contemporary Islamic Scholars', *Procedia Economics and Finance*, 35 (2016): 349–358

M. Mazzucato, *Mission Economy: A Moonshot Guide to Changing Capitalism* (London, 2021)

———. *The Value of Everything: Making and Taking in the Global Economy* (London, 2018)

F. Melis, *Origini e sviluppi delle assicurazioni in Italia* (secoli XIV–XVI), Volume 1: *Le fonti* (Rome, 1975)

M. Ménard-Jacob, *La première compagnie des Indes. Apprentissages, échecs et héritage 1664–1704* (Rennes, 2016)

M.G. Merello Altea, *Carlo Targa giurista genovese del secolo XVII*, vol. I: *La Vita e le opera* (Milan, 1967)

N. Meusnier, 'Le Problème des partis peut-il être d'origine arabo-musulmane?', *Journ@l électronique d'Histoire des Probabilités et de la Statistique/Electronic Journ@l for History of Probability and Statistics*, 3/1 (2007): 1–14

G. Mignone, *Un Contratto Per i Mercanti del Mediterraneo: L'evoluzione del Rapporto Partecipativo* (Naples, 2005)

P.R. Milgrom, D.C. North, and B.R. Weingast, 'The Role of Institutions in the Revival of Trade: The Law Merchant, Private Judges, and the Champagne Fairs', *Economics and Politics*, 2/1 (1990): 1–29

P. Millett, *Lending and Borrowing in Ancient Athens* (Cambridge, 2002)

Muḥammad Ibn Aḥmad Minhājī, *Jawāhir al-ʿUqūd wa-Muʿīn al-Quḍā wa'l-Muwaqqiʿīn wa'l-Shuhūd* (Cairo, 1955)

E. Mira Caballos, *Las armadas imperiales. La guerra en el mar en tiempos de Carlos V y Felipe II* (Madrid, 2015)

F. Miranda, 'Conflict Management in Western Europe: The Case of the Portuguese Merchants in England, Flanders and Normandy, 1250–1500', *Continuity and Change*, 32/1 (2017): 11–36

A. Molho, 'The State and Public Finance: A Hypothesis Based on the History of Late Medieval Florence', *The Journal of Modern History*, 67 (1995): 97–135

E. Moliné y Brasés ed., *Les costums marítimes de Barcelona universalment conegudes per Llibre del Consolat de mar* (Barcelona, 1914)

R. Morieux, *The Channel: England, France and the Construction of a Maritime Border in the Eighteenth Century* (Cambridge, 2016)

M. Moroni, *L'impero di San Biagio. Ragusa e i commerci balcanici dopo la conquista turca (1521–1620)* (Bologna, 2011)

G. Mousourakis, *Roman Law and the Origins of the Civil Law Tradition* (Berlin, 2014)

P. Mukherjee, 'The Anachronism in Maritime Law That Is General Average', *WMU Journal of Maritime Affairs*, 4/2 (2005): 195–209

J.V. Murat, 'L'écrivain de navire en Méditerranée au XIVe siècle', *Rives Méditerranéennes* (2002): 1–16, available at: https://doi.org/10.4000/rives.82

P. Musolino, 'A Relic of the Past or Still an Important Instrument? A Brief Review of General Average in the 21st Century', in M. Musi ed., *Il Diritto Marittimo—Quaderni I—New Challenges in Maritime Law: de lege lata et de lege ferenda* (Bologna, 2015): 257–288

D.G. Nadolski, 'Ottoman and Secular Civil Law', *International Journal of Middle East Studies*, 8/4 (1977): 517–543

J.G. Nanninga, *Bronnen tot de geschiedenis de Levantsche Handel*, 6 vols (The Hague, 1964)

L. Navarro García and C. Borrego Plá, *Actas de la Universidad de Mareantes* (Seville, 1972)

S. Nazim Ali, W. Tariq, and B. Al Quradaghi eds., *The Edinburgh Companion to Shari'Ah Governance in Islamic Finance* (Edinburgh, 2020)

K. Nehlsen—von Stryk, *L'assicurazione marittima a Venezia nel XV secolo* (Rome, 1988)

H.O. Nelli, 'The Earliest Insurance Contract: A New Discovery', *The Journal of Risk and Insurance*, 39/2 (1972): 215–220

R. Neu Watkins, *The Family in Renaissance Florence: A Translation of I Libri Della Famiglia* (Columbia, SC, 1969)

A. Nicolini, 'Commercio marittimo genovese in Inghilterra nel Medioevo (1280–1495)', *Atti della Società Ligure di Storia Patria*, n.s., XLVII (2007): 215–327

H.-T. Niephaus, *Genuas Seehandel von 1746–1848. Die Entwicklung der Handelsbeziehungen zur Iberischen Halbinsel, zu West- und Nordeuropa sowie den Überseegebieten* (Köln–Wien, 1975)

D.R. Noble, *The Principles of Islamic Maritime Law* (Unpublished PhD thesis, School of Oriental and African Studies, The University of London 1988)

D.C. North, *Understanding the Process of Economic Change* (Princeton, 2005)

———. 'Transaction Costs, Institutions and Economic Performance', *International Center for Economic Growth*, Occasional Paper Series, 30 (1992)
———. 'Institutions', *The Journal of Economic Perspectives*, 5 (1991): 97–112
———. *Institutions, Institutional Change and Economic Performance* (Cambridge, 1990)
———. 'A Transaction Cost Theory of Politics', *Journal of Theoretical Politics*, 2/4 (1990): 355–367
———. 'Beyond the New Economic History', *The Journal of Economic History*, 34 (1974): 1–7
D.C. North and R.P. Thomas, *The Rise of the Western World: A New Economic History* (Cambridge, 1973)
H. O'Donnell et al. eds., *Historia Militar de España*, 9 vols (Madrid, 2012)
———. 'Función militar en las flotas de Indias', in H. O'Donnell et al. eds., *Historia Militar de España*, 9 vols (Madrid, 2012): I: 81–119
S. Ogilvie, *Institutions and European Trade: Merchant Guilds, 1000–1800* (Cambridge, 2011)
———. "'Whatever Is, Is Right?' Economic Institutions in Pre-Industrial Europe', *Economic History Review*, 60/4 (2007): 649–684
J.M. Oliva Melgar, 'Realidad y ficción en el monopolio de Indias: una reflexión sobre el sistema imperial español en el siglo XVII', *Manuscrits: Revista d'història moderna*, 14 (1996): 321–355
F. Olivier-Martin, *Histoire du droit français. Des origines à la Révolution* (Paris, 2010)
J.C. Ott, *When Wall Street Met Main Street: The Quest for an Investors' Democracy* (Cambridge, MA, 2011)
A. Pacini, *Desde Rosas a Gaeta: La costruzione della rotta spagnola nel Mediterraneo occidentale nel secolo XVI* (Milan, 2013)
———. *I presupposti politici del "secolo dei genovesi". La riforma del 1528* (Genoa, 1990)
M. Pal ed., *Plenitudo legis, amor veritatis* (Rome, 2002)
M.J. Palaez, 'El seguro marítimo en el Derecho histórico Catalán', in his *Historia del Derecho de la navigación*, vol. I: *Trabajos de teoría e historia de derecho marítimo y de derecho aeronáutico* (Barcelona, 1994): 138–160
G.A. Palazzo, *La lex Rhodia de jactu nel diritto romano* (Parma, 1919)
E. Papagianni, 'Seehandelrechtliche Streitigkeiten vor dem Patriarchatgericht', in C. Gastgeber, E. Mitsiou, and J. Preiser-Kapeller eds., *The Register of the Patriarchate of Constantinople: An Essential Source for the History and Church of Late Byzantium* (Vienna, 2013): 199–205
———. 'Formes d'enterprises maritimes des Constantinopolitains à la fin du XIVe siècle', in E. Chrysos, D. Letsios, H.A. Richter, and R. Stupperich eds., *Griechenland und das Meer. Beiträge eines Symposiums in Frankfurt in Dezember 1996* (Mannheim, 1999): 179–184

———. 'Εμποροικέςεπιχειρήσεις Κωνσταντινουπολιτών κατά τα έτη 1399–1401. Ο όρος «συντροφία» στα Acta Patriarchatus Constantinopolitani' ['Commercial Enterprises of Constantinopolitans During the Years 1399–1401. The Term *syntrofia* in the Register of the Patriarchate of Constantinople'], in *Gedächnisschrift für Alkis Argyriadis* (Athens, 1995): 735–745

L. Paparriga-Artemiades, *Στοιχεία ελληνικών επιδράσεων στα λατινικά κείμενα του Corpus Juris Civilis. Αποσπάσματα από την αρχαιοελληνική γραμματεία* [Elements of Greek Influences in the Latin Texts of the Corpus Iuris Civilis: Fragments of Ancient Greek Literature] (Athens, 2006)

G. Parker, *The Army of Flanders and the Spanish Road 1567–1659* (Cambridge, 1972)

J.H. Parry, 'Transport and Trade Routes', in E. Rich and C. Wilson eds., *The Cambridge Economic History of Europe from the Decline of the Roman Empire* (Cambridge, 1967): 155–219

D. Pedemonte, 'Deserters, Mutineers and Criminals: British Sailors and Problems of Port Jurisdiction in Genoa and Livorno During the Eighteenth Century', in M. Fusaro, B. Allaire, R.J. Blakemore, and T. Vanneste eds., *Law, Labour and Empire: Comparative Perspectives on Seafarers, c. 1500–1800* (Basingstoke, 2015): 256–271

G.B. Pellegrini, *Gli arabismi nelle lingue neolatine con speciale riguardo all'Italia* (Brescia, 1972)

G.S. Pene Vidari, 'Il contratto d'assicurazione nell'età moderna', in *L'assicurazione in Italia fino all'Unità* (Milan, 1975): 193–351

D. Penna, '"Dans la tradition d'Harmenopoulos…". Some Notes on the Tradition of Harmenopoulos' *Hexabiblos* in the Netherlands', in *Groninger Opmerkingen en Mededelingen*, 32 (2015): 93–110, available at: https://ugp.rug.nl/grom/article/view/27026 (last accessed 4 December 2021).

S. Perentidis, 'Recherches sur le texte de la Synopsis minor', *Fontes Minores*, 6 (1984): 219–273

P.E. Pérez-Mallaína Bueno, 'Generales y Almirantes de la Carrera de Indias. una investigación pendiente', *Chronica Nova*, 33 (2007): 285–332

———. *Los hombres del Océano. Vida cotidiana de los tripulantes de las flotas de Indias, siglo XVI* (Seville, 1992)

G. Pesce and G. Felloni, *Genoese Coins: The Artistic and Economic History of Genoese Coins Between 1139 and 1814* (Genoa, 1976)

L. Pezzolo, 'I traffici mediterranei, 1400–1700', *Le Note di Lavoro del Dipartimento di Scienze Economiche* (2009): 1–31

V. Piergiovanni, 'Il valore del documento alle origini della scienza del diritto commerciale: Sigismondo Scaccia giudice a Genova nel XVII secolo', in *Ianuensis non nascitur, sed fit. Studi in onore di Dino Puncuh*, 3 vols (Genoa, 2019): 3: 1061–1068

———. *Norme, scienza e pratica giuridica tra Genova e l'Occidente medievale e moderno*, 2 vols (Genoa, 2012)

———. *Gli statuti civili e criminali di Genova nel Medioevo. La tradizione manoscritta e le edizioni* (Genoa, 1980)

———. *Lezioni di storia giuridica genovese. Il Medioevo* (Genoa, 1983)

V. Piergiovanni ed., *From Lex Mercatoria to Commercial Law* (Berlin, 2005)

T. Piketty, *Capital in the Twenty First Century* (Cambridge, MA, 2014)

———. *Capital and Ideology* (Cambridge, MA, 2019)

L. Piccinno, 'A City with a Port or a Port City?', in W. Blockmans, M. Krom, and J. Wubs-Mrozewicz eds., *The Routledge Handbook of Maritime Trade Around Europe 1300–1600: Commercial Networks and Urban Autonomy* (Abingdon–New York, 2017): 159–176

———. 'Genoa, 1340–1620: Early Development of Marine Insurance', in A.L. Leonard ed., *Marine Insurance: Origins and Institutions: 1300–1850* (Basingstoke, 2015): 25–45

———. 'Rischi di viaggio nel commercio marittimo del XVIII secolo', in M. Cini ed., *Traffici commerciali, sicurezza marittima, guerra di corsa. Il Mediterraneo e l'Ordine di Santo Stefano* (Pisa, 2011): 159–179

———. *Un'impresa fra terra e mare. Giacomo Filippo Durazzo e soci a Tabarca (1719–1729)* (Milan, 2008)

———. 'Città, porto, economia locale. I progetti di ampliamento del Portofranco di Genova tra Sei e Settecento', in S. Cavaciocchi ed., *Ricchezza del mare, ricchezza dal mare, secc. XIII–XVIII* (Florence, 2007): 773–794

———. *Economia marittima e operatività portuale, Genova, secc. XVII–XIX* (Genoa, 2000)

L. Piccinno and A. Iodice, 'Managing Shipping Risk: General Average and Marine Insurancein Early Modern Genoa', in P. Hellwege and G. Rossi eds., *Maritime Risk Management: Essays on the History of Marine Insurance, General Average and Sea Loan* (Berlin, 2021): 83–109

L. Piccinno and A. Zanini, 'Genoa, Sixteenth Century-1797', *Revue de l'OFCE*, 44/140 (2015): 249–252

H. Pihlajamäki, A. Cordes, S. Dauchy, and D. De ruysscher eds., *Understanding the Sources of Early Modern and Modern Commercial Law: Courts, Statutes, Contracts, and Legal Scholarship* (Leiden/Boston, 2018)

C.G. Pitsakes, *Πρόχειρον Νόμων ἢ Ἑξάβιβλος* [= Procheiron Nomon or Hexabiblos] (Athens, 1971)

J.-P. Platteau, 'Mutual Insurance as an Elusive Concept in Traditional Rural Communities', *Journal of Development Studies*, 33 (1997): 764–796

D. Pouilloux, *Mémoires d'assurances. Recueil de sources françaises sur l'histoire des assurances du XVIème au XIXème siècle* (Paris, 2011)

V. Polonio, 'Devozioni marinare dall'osservatorio ligure (secoli XII–XVII)', in *Dio, il mare e gli uomini*, Monographic Issue of *Quaderni di storia religiosa*, XV (2008): 243–315

———. 'Dalla marginalità alla potenza sul mare: un lento itinerario tra V e XIII secolo', in G. Assereto and M. Doria eds., *Storia della Liguria* (Bari, 2007): 26–38

P.A. Porras Arboledas, 'El derecho marítimo en el Cantábrico durante la Baja Edad Media: Partidas y Rôles d'Oléron', in J.Á. Solórzano Telechea et al. eds., *Ciudades y villas portuarias del Atlántico en la Edad Media* (Logroño, 2005): 231–256

———. 'La práctica mercantil marítima en el Cantábrico Oriental: Siglos XV–XIX. Primera parte", *Cuadernos de historia del derecho*, 8 (2001): 13–127

A. Porta, *Joan en Gerrit Corver. De politieke macht van Amsterdam (1702–1748)* (Assen, 1975)

J. Pulido Rubio, *El Piloto Mayor de la Casa de la Contratación de Sevilla: pilotos mayores, catedráticos de cosmografía y cosmógrafos de la Casa de la Contratación de Sevilla* (Seville, 1950)

G. Purpura, 'Ius naufragii, sylai e lex Rhodia. Genesi delle consuetudini marittime mediterranee', *Annali dell'Università di Palermo*, 47 (2002): 275–292

J. Puttevils, *Merchants and Trading in the Sixteenth Century: The Golden Age of Antwerp* (London, 2015)

J. Puttevils and M. Deloof, 'Marketing and Pricing Risk in Marine Insurance in Sixteenth-Century Antwerp', *The Journal of Economic History*, 77/3 (2017): 796–837

J. Puttevils, P. Stabel, and B. Verbist, 'Een eenduidig pad van modernisering van het handelsverkeer: van het liberale Brugge naar het gereguleerde Antwerpen?', in B. Blondé ed., *Overheid en economie: geschiedenissen van een spanningsveld* (Antwerp, 2014): 39–54

J.H. Pryor, 'The Origins of the Commenda Contract', *Speculum*, 52/1 (1977): 5–37

G. Rambert, *Histoire du commerce de Marseille*, vol. VII: *De 1660 à 1789, L'Europe* (Paris, 1966)

C.H. Reatz, 'Ordonnances du duc d'Albe sur les assurances maritimes de 1569, 1570, 1571, avec un précis de l'histoire du droit d'assurance maritime dans les Pays-Bas', *Compte-rendu des séances de la commission royale d'histoire*, Deuxième Série, 5 (1878): 41–118

O. Remie Constable, 'The Problem of Jettison in Medieval Mediterranean Maritime Law', *Journal of Medieval History*, 20 (1994): 207–220.

Recopilación de Leyes de los Reynos de las Indias mandadas imprimir, y publicar por la Magestad Católica del Rey Don Carlos II nuestro señor. Va dividida en quatro tomos, con el Indice general, y al principio de cada Tomo el Indice especial de los títulos que contiene (Madrid: Iulian de Paredes, 1681)

A. Reid, 'The Hybrid Maritime Actors of Southeast Asia', in C. Buchet and G. Le Bouëdec eds., *The Sea in History—The Early Modern World* (Woodbridge, 2017): 112–122

A. M. Rivera Medina, 'La construcción-reconstrucción de un espacio portuario El canal y ría de Bilbao en los siglos XIV–XVI', in A. Polónia and A.M. Rivera Medina eds., *La gobernanza de los puertos atlánticos, siglos XIV–XX. Políticas y estructuras portuarias* (Madrid, 2016): 171–191

———. 'Espacios urbano y portuario: las dinámicas de gestión del Canal y Ría de Bilbao, Siglos XIV–XVI', in E. Aznar Vallejo et al. eds., *De mar a mar. Los puertos castellanos en la Edad Media* (La Laguna, 2015): 93–122

O.F. Robinson, T.D. Fergus, and William M. Gordon, *An Introduction to European Legal History* (Abingdon, 1985)

P. Rocca, *Pesi e misure di Genova e del Genovesato* (Genoa: Istituto Sordomuti, 1871)

———. *Pesi nazionali e stranieri, dichiarati e ridotti da P.F.R.* (Genoa: Stamperia Casamara, 1843)

G. Rodolakis, *Από το Νόμο Ροδίων στο 53ο Βιβλίο των Βασιλικῶν. Συμβολή στη μελέτη του Βυζαντινού Ναυτικού Δικαίου* [From the "Law of the Rhodians" to the 53rd Book of "BASILIKA". Contribution to the Study of Byzantine Maritime Law] (Athens, 2007)

R. Rodríguez Lopes, 'The Maritime Loan in the "Carrera de Indias"', *Revue international de droit de l'Antiquité*, 48 (2001): 259–276

M.S. Rollandi, 'Mimetismo di bandiera nel Mediterraneo del secondo Settecento. Il caso del *Giorgio* inglese', *Società e Storia*, 23/4 (2010): 721–742

J.-L. Rosenthal and R. Bin Wong, *Before and Beyond Divergence: The Politics of Economic Change in China and Europe* (Cambridge, MA, 2011)

G. Rossi, *Insurance in Elizabethan England: The London Code* (Cambridge, 2016)

———. The Barratry of the Shipmaster in Early Modern Law: Polysemy and *mos italicus*', *Tijdschrift voor Rechtsgeschiedenis*, 87/1, (2019): 65–85

———. 'The Barratry of the Shipmaster in Early Modern Law: The Approach of Italian and English Law Courts', *Tijdschrift voor Rechtsgeschiedenis*, 87/4, (2019): 504–574

———. 'The Abandonment to the Insurers in Sixteenth Century Insurance Practice: Comparative Remarks and (a Few) Methodological Notes', in H. Pihlajamäki, A. Cordes, S. Dauchy, D. De ruysscher eds., *Understanding the Sources of Early Modern and Modern Commercial Law: Courts, Statutes, Contracts, and Legal Scholarship* (Leiden, 2018): 87–118

———. 'England 1523–1601: The Beginnings of Marine Insurance', in A.L. Leonard ed., *Marine Insurance: Origins and Institutions: 1300–1850* (Basingstoke, 2015): 131–148

———. 'The Liability of the Shipmaster in Early Modern Law: Comparative (and Practice-Oriented) Remarks', *Historia et ius*, 12 (2017), available at: http://www.historiaetius.eu/uploads/5/9/4/8/5948821/rossi_guido_12.pdf (last accessed 12 December 2021)

J. Rougé, ''Ο θειότατος Αὔγουστος', *Revue de Philologie de Littérature et d'Histoire anciennes*, 43 (1969): 83–92

I. Ruggiero, 'Immagini di Ius receptum nelle Pauli Sententiae', in *Studi in onore di Remo Martini*, 3 vols (Milan, 2009): 3: 425–470

E. Ruiz Pilares, 'Jerez de la Frontera: El gran centro productor del complejo portuario de la bahía de Cádiz a finales de la Edad Media', *Estudios sobre patrimonio, cultura y ciencias medievales*, 20 (2018): 356–386

T.J. Runyan, 'The Rolls of Oleron and the Admiralty Court in Fourteenth Century England', *The American Journal of Legal History*, 19 (1975): 95–111

Juan Sala Bañuls ed., *Digesto romano-español*, 2 vols (Madrid: Colegio Nacional de Sordo-Mudes, 1844)

M. Sanacore, *Consoli del Mare a Pisa, dall'età medicea alle riforme leopoldine* (Unpublished tesi di laurea, University of Pisa, 1983)

A. Sánchez Martínez, 'Los artífices del Plus Ultra: pilotos, cartógrafos y cosmógrafos en la Casa de la Contratación de Sevilla durante el siglo XVI', *Hispania. Revista Española de Historia*, 70/236 (2010): 607–632

'La institucionalización de la cosmografía americana: la Casa de la Contratación de Sevilla, el Real Supremo Consejo de Indias y la Academia de Matemáticas de Felipe II', *Revista de Indias*, 70/250 (2010): 715–748

R. Sánchez Saus, 'El Almirantazgo castellano hasta don Alonso Jofré Tenorio: redes de parentesco y tradición familiar', in *La Península Ibérica entre el Mediterráneo y el Atlántico. Siglos XIII–XV* (Seville-Cádiz, 2006): 759–774

———. 'Dependencia señorial y desarrollo urbano en la Andalucía Atlántica: Cádiz y los Ponce de León en el siglo XV', *Acta historica et archaeologica mediaevalia*, 26 (2005): 903–928

R. Savelli, *Politiche del diritto ed istituzioni a Genova tra Medioevo ed età moderna* (Genoa, 2017)

———. 'Statuti e amministrazione della giustizia a Genova nel Cinquecento', *Quaderni Storici*, 37/110 (2002): 347–377

———. *La repubblica oligarchica. Legislazione, istituzioni e ceti a Genova nel Cinquecento* (Milan, 1981)

E. Schäfer, *El Consejo Real y Supremo de las Indias. La labor del Consejo de Indias en la administración colonial*, 2 vols (Madrid, 2003)

W. Scheidel, 'The Shape of the Roman World: Modelling Imperial Connectivity', *Journal of Roman Archaeology*, 27/1 (2014): 7–32

H.J. Scheltema, D. Holwerda, and N. van der Wal, *Basilica*: A (text) I–VIII, B (*scholia*), I–IX (Groningen, 1953–1988), available at: http://referenceworks.brillonline.com/browse/basilica-online (last accessed 20 January 2021)

E. Schilbach, *Byzantinische Metrologie* (Munich, 1970)
I. Schneider, 'The Solution of the Two Main Problems Concerning Games of Chance in the Late European Middle Ages and the Possibility of Islamic Sources', *Bollettino di Storia delle Scienze Matematiche*, 23/2 (2003): 99–108
T.J. Schoenbaum, *Admiralty and Maritime Law* (St. Paul, MN, 1994)
I. Schöffer, 'De vonnissen in averij grosse van de Kamer van Assurantie en Avarij te Amsterdam in de 18e eeuw', *Economisch-Historisch Jaarboek*, 26 (1956): 72–132
A. Schwartz and R.E. Scott, 'Contract Theory and the Limits of Contract Law', *Yale Law Journal*, 113/3 (2003): 541–619
O. Sciolla, 'Dell'edizione principe del Consolato del mare', in L.A. Senigallia ed., *Atti della mostra bibliografica e convegno internazionale di studi storici del Diritto marittimo medioevale* (Naples, 1934): 329–334
R.E. Scott, 'The Paradox of Contracting in Markets', *Law and Contemporary Problems*, 83 (2020): 71–99
R.E. Scott and G.G. Triantis, 'Anticipating Litigation in Contract Design', *Yale Law Journal*, 115/4 (2005): 814–879
N. Scott Baker, *In Fortune's Theater: Financial Risk and the Future in Renaissance Italy* (Cambridge, 2021)
K.S. Selmer, *The Survival of General Average*: *A Necessity or an Anachronism?* (Oslo, 1958)
R.B. Serjeant, 'Maritime Customary Law off the Arabian Coasts', in M. Mollat ed., *Sociétés et compagnies de commerce en orient et dans l'océan indien* (Paris, 1970): 195–207
M. Serna Vallejo, 'La correspondencia entre los contenidos de los *Rôles d'Oléron* y el texto más antiguo de las *Costumes de Mar* del *Llibre del Consolat de Mar*', *Initium. Revista catalana d'historia del dret*, 20/1 (2015): 159–204
———. *Los "Rôles d'Oléron": el "coutumier" marítimo del Atlántico y del Báltico de época medieval y moderna* (Santander, 2004)
J. Shephard, 'The *Rôles d'Oléron*: A *lex mercatoria* of the Sea?', in V. Piergiovanni ed., *From Lex Mercatoria to Commercial Law* (Berlin, 2005): 207–253
F. Siccardi, *Avaria comune e le regole di York e Anversa* (Turin, 2019)
L.H.J. Sicking, 'Introduction: Maritime Conflict Management, Diplomacy and International Law, 1100–1800', *Comparative Legal History*, 5 (2017): 1–14
———. 'Los grupos de intereses marítimos de la Península Ibérica en la ciudad de Amberes: la gestión de riesgos y la navigación en el siglo XVI', in J.A.S. Telechea, M. Bochacha, and A.A. Andrade eds., *Gentes de mar en la ciudad Atlántica medieval* (Logroño, 2012): 167–199
———. 'Les marchands espagnols et portugais aux Pays-Bas et la navigation à l'époque de Charles Quint: gestion des risques et législation', *Publications du Centre Européen d'Etudes Bourguignonnes*, 51 (2011): 253–274

———. *Neptune and the Netherlands: State, Economy, and War at Sea in the Renaissance* (Leiden/Boston, 2004)

D. Simon, 'Handschriftenstudien zur byzantinischen Rechtsgeschichte', *Byzantinische Zeitschrift*, 71 (1978): 332–348

R.S. Smith, 'Antecedentes del Consulado de México, 1590–1594', *Revista de Historia de América*, 15 (1942): 200–316

———. *The Spanish Guild Merchant: a History of the Consulado, 1250–1700* (Durham, NC, 1940)

E. Sohmer Tai, 'Held to Account: Medieval Scribes at Sea', *Mediterranean Studies*, 25 (2017): 164–188

M.E. Soldani, *I mercanti catalani e la corona d'Aragona in Sardegna: profitti e potere negli anni della conquista* (Rome, 2017)

———. 'Arbitrati e processi consolari fra Barcellona e l'Oltremare nel tardo medioevo', in E. Maccioni and S. Tognetti eds., *Tribunali di mercanti e giustia mercantile nel tardo medioevo* (Florence, 2016): 83–105

J.Á. Solórzano Telechea, 'Los puertos del Rey. Síntesis Interpretativa del fenómeno urbano en el Norte de España durante los siglos xii y xiii', *Temas Medievales*, 17 (2009): 207–228

J.Á. Solórzano Telechea et al. eds., *Las sociedades portuarias de la Europa Atlántica en la Edad Media* (Logroño, 2016)

J.Á. Solórzano Telechea et al. eds., *Ciudades y villas portuarias del Atlántico en la Edad Media* (Logroño, 2005)

M. Solomon, 'Breaking Non Natural Bread: Alimentary Hygiene and Radical Individualism in Juan de Aviñón's *Medicina sevillana*', in M. Piera ed., *Forging Communities: Food and Representation in Medieval and Early Modern Southwestern Europe* (Fayetteville, 2018): 147–158

E. Spagnesi, 'Aspetti dell'assicurazione medievale', in *L'assicurazione in Italia fino all'Unità. Saggi storici in onore di Eugenio Artom* (Milan, 1975): 3–69

G. Spallacci, 'Il prestito a cambio marittimo ad Ancona nel XV secolo', *Storia economica*, 21/2 (2018): 251–275

I. Spatharakis, 'The Text of Chapter 30 of the Lex Rhodia Nautica', *Hellenica*, 26 (1973): 207–215

F.C. Spooner, *Risks at Sea: Amsterdam Insurance and Maritime Europe, 1766–1780* (Cambridge, 1983)

J.S. Spruit et al. eds., *Corpus Iuris Civilis: tekst en vertaling*, 12 vols (The Hague, 1993–2006)

P. Spufford, 'Late Medieval Merchant's Notebooks: A Project. Their Potential for the History of Banking', in M. A. Denzel, J.-Cl. Hocquet, and H. Wittho eds., *Kaufmannsbücher und Handelspraktiken vom Spätmittelalter bis zum beginnenden 20. Jahrhundert/Merchant's Books and Mercantile* Pratiche *from the Late Middle Ages to the Beginning of the 20th Century* (Stuttgart, 2002): 47–62

P. Stabel, 'Kooplieden in de stad', in A. Vandewalle ed., *Hanzekooplui en Medicibankiers: Brugge, wisselmarkt van Europese culturen* (Oostkamp, 2002): 85–96

S.M. Stern, 'Three Petitions of the Fāṭimīd Period', *Oriens*, 15 (1962): 172–209

B.H. Stolte, 'New Praefatio' to *Basilica Online. Justinian's Corpus iuris in the Byzantine World* (Leiden, 2018). http://referenceworks.brillonline.com/browse/basilica-online (last accessed 4 December 2021)

———. 'The Law of New Rome: Byzantine Law', in D. Johnston ed., *The Cambridge Companion to Roman Law* (Cambridge, 2015): 355–373

———. 'Is Byzantine Law Roman Law?', *Acta Byzantina Fennica*, 2 (2003–2004): 111–126

L.A.E. Suermondt, 'De Oprichting van de Kamer van Assurantiën te Rotterdam', *Rotterdams Jaarboekje*, 7/5 (1967): 209–222

B. Supple, 'The Nature of Enterprise', in E.E. Rich and C.H. Wilson eds., *The Cambridge Economic History of Europe*, vol. 5: *The Economic Organization of Early Modern Europe* (Cambridge, 1977): 393–461

L. Tanzini, 'Le prime edizioni a stampa in italiano del Libro del Consolato del Mare', in R. Martorelli ed., *Itinerando. Senza confini dalla preistoria ad oggi. Studi in onore di Roberto Coroneo* (Perugia, 2015): 965–978

C. Taviani, 'The Genoese Casa di San Giorgio as a Micro-Economic and Territorial Nodal System', in W. Blockmans, M. Krom, and J. Wubs-Mrozewicz eds., *The Routledge Handbook of Maritime Trade Around Europe 1300–1600: Commercial Networks and Urban Autonomy* (Abingdon–New York, 2017): 177–191

C. Tazzara, *The Free Port of Livorno and the Transformation of the Mediterranean World* (Oxford, 2017)

G. Tedeschi, *Il diritto marittimo dei romani comparato al diritto italiano* (Montefiascone: Silvio Pellico, 1899)

S. Tena García, 'Cofradías y concejos: encuentros y desencuentros en San Sebastián a finales del siglo XV', in J.M. Antón Monsalvo ed., *Sociedades urbanas y culturas políticas en la Baja Edad Media castellana* (Salamanca, 2013): 231–254

A. Tenenti, *L'età moderna* (Bologna, 1980)

———. *Naufrages, Corsaires et Assurances maritimes à Venise 1592–1609* (Paris, 1959)

A. Tenenti and B. Tenenti, *Il prezzo del rischio. L'assicurazione mediterranea vista da Ragusa (1563–1591)* (Rome, 1985)

N. Tenorio y Cerero, *El Concejo de Sevilla: estudio de la organización político-social de la ciudad, desde su reconquista hasta el reinado de D. Alfonso XI* (Seville, 1901)

W. Tetley, 'General Average Now and in the Future', in R. Roland ed., *Liber Amicorum* (Brussels, 2003): 419–450

J. Thiveaud, 'La naissance des assurances maritimes et Colbert', *Revue d'économie financière*, 4 (1988): 151–156

E. Thomson, 'Commerce, Law, and Erudite Culture: The Mechanics of Théodore Godefroy's Service to Cardinal Richelieu', *Journal of the History of Ideas*, 68 (2007): 407–427

J. Thomson, *Clermont-de-Lodève 1633–1789: Fluctuations in the Prosperity of a Languedocian Cloth-Making Town* (Cambridge, 2003)

G. Todeschini, 'Theological Roots of the Medieval/Modern Merchants' Self-Representation', in M.C. Jacob and C. Secretan eds., *The Self-Perception of Early Modern "Capitalists"* (New York, 2008): 17–46

———. *Ricchezza francescana. Dalla povertà volontaria alla società di mercato* (Bologna, 2004)

———. *I mercanti e il tempio. La società cristiana e il circolo virtuoso della ricchezza fra Medioevo ed Età Moderna* (Bologna, 2002)

Z. Toprak, 'From Plurality to Unity: Codification and Jurisprudence in the Late Ottoman Empire', in A. Frangoudaki and Ç. Keyder eds., *Ways to Modernity in Greece and Turkey: Encounters with Europe, 1850–1950* (London, 2007): 26–39

O. Toth, *The Lex Mercatoria in Theory and Practice* (Oxford, 2017)

L. Toti Rigatelli, 'Il 'Problema delle Parti' in Manoscritti del XIV e XV Secolo', in M. Folkerts and U. Lindgren eds., *Mathemata. Festschrift für Helmuth Gericke* (Wiesbaden–Stuttgart, 1985): 229–236

F. Trivellato, 'Renaissance Florence and the Origins of Capitalism: A Business History Perspective', *Business History Review*, 94/1 (2020): 229–252

———. 'Economic and Business History as Cultural History: Pitfalls and Possibilities', *I Tatti Studies in the Italian Renaissance*, 22 (2019): 403–410

———. *The Promise and Peril of Credit: What a Forgotten Legend About Jews and Finance Tells Us About the Making of Commercial Society* (Princeton, 2019)

———. '"Usages and Customs of the Sea": Étienne Cleirac and the Making of Maritime Law in Seventeenth-Century France', *Tijdschrift voor Rechtsgeschiedenis/Revue d'histoire du droit/Legal History Review*, 84/2 (2016): 193–224

———. '"Amphibious Power": The Law of Wreck, Maritime Customs, and Sovereignty in Richelieu's France', *Law and History Review*, 33 (2015): 915–944

———. *The Familiarity of Strangers: the Sephardic Diaspora, Livorno, and Cross-Cultural Trade in the Early Modern Period* (New Haven/London, 2009)

S. Troianos, *Die Quellen des byzantinischen Rechts* (Berlin, 2017)

E. Trueba, *Sevilla: Tribunal de Océanos (siglo XVI)* (Seville, 1998)

U. Tucci, 'Introduction', in Benedetto Cotrugli, *Il libro dell'arte di mercatura*, ed. U. Tucci (Venice, 1990)

———. 'Gli investimenti assicurativi a Venezia nella seconda metà del Cinquecento', in his *Navi, mercanti e monete nel Cinquecento veneziano* (Bologna, 1981): 145–160

A.L. Udovitch, 'An Eleventh Century Islamic Treatise on the Law of the Sea', *Annales Islamologique*, 27 (1993): 37–54

R.W. Unger ed., *Shipping and Economic Growth 1350–1850* (Leiden–Boston, 2011)

D.A. Urbina and A. Ruiz-Villaverde, 'A Critical Review of *Homo Economicus* from Five Approaches', *The American Journal of Economics and Sociology*, 79/1 (2019): 63–93

E. Vallès, *Pal-Las Diccionari Català* (Barcelona, 1962)

C. van Bochove, 'Seafarers and Shopkeepers: Credit in Eighteenth-Century Amsterdam', *Eighteenth-Century Studies*, 48/1 (2014): 67–88

D. Van den Aauweele, 'Het Brugse zeerecht, schakel in een supranationaal geheel', in V. Vermeersch ed., *Brugge en de zee: van Bryggia tot Zeebrugge* (Antwerp, 1982): 145–155

———. 'Zeerecht', in G. Asaert et al., *Maritieme Geschiedenis der Nederlanden*, 4 vols (Bussum, 1976–1978)

H. Van der Wee, *The Growth of the Antwerp Market and the European Economy, Fourteenth-Sixteenth Centuries*, 3 vols (The Hague, 1963)

W. Van Egmond, *Practical Mathematics in the Italian Renaissance: A Catalog of Italian Abbacus Manuscripts and Printed Books to 1600* (Florence, 1980)

B. Van Hofstraeten, *Juridisch humanisme en costumiere acculturatie: Inhouds- en vormbepalende factoren van de Antwerpse* Consuetudines Compilatae (1608) *en het* Gelderse Land- en Stadrecht (1620) *van het Roermondse Overkwartier* (Maastricht, 2008)

M. van Ittersum, *Profit and Principle: Hugo Grotius, Natural Rights Theories and the Rise of Dutch Power in the East Indies, 1595–1615* (Leiden, 2006)

M.H.D. van Leeuwen, *Mutual Insurance 1550–2015: From Guild Welfare and Friendly Societies to Contemporary Micro-Insurers* (London, 2016)

J.P. Van Niekerk, *The Development of the Principles of Insurance Law in the Netherlands from 1500–1800* (Johannesburg, 1998)

C.H. Van Rhee, *Litigation and Legislation: Civil Procedure at First Instance in the Great Council for the Netherlands in Malines (1522–1559)* (Brussels, 1997)

M.M. Vas Mingo, *El laberinto del comercio naval. La avería en el tráfico marítimo-mercantil indiano* (Valladolid, 2004)

———. 'La avería de disminución de riesgos marítimos y terrestres. La avería del camino', *Estudios de historia novohispana*, 26 (2002): 125–163

———. *Los Consulados en el tráfico indiano* (2000), available at: http://www.larramendi.es/i18n/catalogo_imagenes/grupo.cmd?path=1000183 (last accessed 21 January 2021)

M.M. Vas Mingo and M. Luque Talaván, 'La avería de disminución de riesgos en el reinado de Carlos V', in *El emperador Carlos V y su tiempo* (Seville, 2000): 575–604

M.M. Vas Mingo and C. Navarro Azcué, 'El riesgo en el transporte marítimo del siglo XVI', in *Congreso de Historia del Descubrimiento (1492–1556)*, 4 vols (Madrid, 1992): III: 579–614

C. Verlinden, 'De zeeverzekeringen der Spaanse kooplui in de Nederlanden gedurende de XVIe eeuw', *Bijdragen voor de Geschiedenis der Nederlanden*, 4 (1948): 191–216

———. 'Código de seguros marítimos según la costumbre de Amberes: promulgado por le Consulado Español de Brujas en 1569', in *Sección Española del Instituto de Investigaciones Históricas* (Buenos Aires, 1947): 146–193

E. Vila Vilar, *El Consulado de Sevilla de mercaderes a Indias. Un órgano de poder* (Seville, 2016)

———. *Los Corzo y los Mañara: tipos y arquetipos del mercader con Indias* (Seville, 2011)

———. 'El poder del dinero: la Casa y los Consulados de Sevilla y Cádiz', in G.d.C. Boutet ed., *España América. Un océano de negocios. Quinto Centenario de la Casa de la Contratación 1503–2003* (Seville, 2003): 147–160

———. 'Los Corzos: un "clan" en la colonización de América: apuntes para su historia', *Anuario de Estudios Americanos*, 42 (1985): 1–42

P. Vilar, *La Catalogne dans l'Espagne moderne*, 2 vols (Paris, 1962)

F.E. Vogel and S.L. Hayes, *Islamic Law and Finance: Religion, Risk, and Return* (The Hague, 1998)

L. Wade, *Privilege at a Premium: Insurance, Maritime Law and Political Economy in Early Modern France, 1664–c. 1710* (Unpublished PhD thesis, University of Exeter, 2021)

———. 'Royal Companies, Risk Management and Sovereignty in Old Regime France', forthcoming in *The English Historical Review*.

F. Wallis ed., *Medieval Medicine: A Reader* (Toronto, 2010)

R. Warlomont, 'Les sources néerlandaises de l'Ordonnance maritime de Colbert (1681)', *Revue belge de philologie et d'histoire*, 33 (1955): 333–344

D. Wiggins, *Sameness and Substance Renewed* (Cambridge, 2012)

A.A. Wijffels, 'Justitia in Commerciis: Public Governance and Commercial Litigation Before the Great Council of Mechlin in the Late Fifteenth and Early Sixteenth Century', in H. Pihlajamäki, A. Cordes, S. Dauchy, D. De ruysscher eds., *Understanding the Sources of Early Modern and Modern Commercial Law: Courts, Statutes, Contracts, and Legal Scholarship* (Leiden/Boston, 2018): 32–54

———. 'Introduction: Commercial Quarrels-and How (Not) to Handle Them', *Continuity and Change*, 32/1 (2017): 1–9

C. Wijffels, 'Een Antwerpse zeeverzekeringspolis uit het jaar 1557', *Handelingen van de Koninklijke Commissie voor Geschiedenis*, 63/1–2 (1948): 95–103

A.C. Williams and R.M. Heins, *Risk Management and Insurance* (New York, 1964)

O.E. Williamson, 'The Economics of Organization: The Transaction Costs Approach', *American Journal of Sociology*, 87/3 (1981): 549–577

———. 'Transaction-Cost Economics: The Governance of Contractual Relations', *Journal of Law and Economics*, 22 (1979): 233–262

A. Wilson, 'Developments in Mediterranean Shipping and Maritime Trade from the Hellenistic Period to AD 1000', in D. Robinson and A. Wilson eds., *Maritime Archaeology and Ancient Trade in the Mediterranean* (Oxford, 2011): 33–59

J. Wubs-Mrozewicz, 'The Concept of Language of Trust and Trustworthiness: (Why) History Matters', *Journal of Trust Research*, 10 (2019): 91–107

———. 'Conflict Management and Interdisciplinary History', *Tijdschrift voor Sociale en Economische Geschiedenis*, 15/1 (2018): 89–107

———. 'The Late Medieval and Early Modern Hanse as an Institution of Conflict Management', *Continuity and Change*, 32/1 (2017): 59–84

———. 'Danzig (Gdańsk): Seeking Stability and Autonomy', in W. Blockmans, M. Krom, and J. Wubs-Mrozewicz eds., *The Routledge Handbook of Maritime Trade Around Europe 1300–1600: Commercial Networks and Urban Autonomy* (Abingdon–New York, 2017): 248–272

B. Zalewski, 'Creative Interpretation of *lex Rhodia de iactu* in the Legal Doctrine of ius commune', *Krytyka Prawa*, 8 (2016): 173–191

A. Zanini, 'La Superba: Its Institutions and Fortune', in J. Bober, P. Boccardo, and F. Boggero, eds., *A Superb Baroque: Art in Genoa, 1600–1750* (Princeton, 2020): 5–21

———. *Impresa e finanza a Genova. I Crosa (secoli XVII–XVIII)* (Genoa, 2017)

R. Zeno, *Storia del diritto marittimo italiano nel Mediterraneo* (Milan, 1946)

I. and P. Zepos, *Jus Graecoromanum*, 8 vols (Athens, 1931)

R. Zimmermann, *The Law of Obligations: Roman Foundations of the Civilian Tradition* (Oxford, 1996 [1990])

J.R. Ziskind, 'Sea Loans at Ugarit', *Journal of the American Oriental Society*, 94/1 (1974): 134–137

L. Zumalacárregui, 'Contribución al estudio de la avería en el siglo XVI y principios del XVII', *Anales de Economía*, 4/16 (1944): 385–424

Index

A

Abraham ben Yījū, Tunisian Jewish merchant, 136

Abū Bakr Ibn ʿAbd al-Raḥmān, Egyptian jurist (d. 432 A.H./1040 C.E.), 133

Abū Muḥammad Ibn Abū Zayd, jurist from Qayrawān (310–386 A.H./922–996 C.E.), 129

Acts of the Apostles, 5, 96

Addobbati, Andrea, 4, 6, 9, 11, 12, 14, 18, 44, 49, 51, 61, 66, 100, 122, 180, 226, 260, 263, 270, 272, 365, 366, 368, 373, 382, 385, 423

Admiral (Spain), 173

Admiralty (Netherlands), 394

Adriatic, 147, 148, 156, 264, 265, 318, 319, 330, 332

Aequitas, 29

Agency problems, 35

Agrigento, 332

Agustín de Landecho, *maestre* and owner of the *Nuestra Señora de Begoña*, 254

Aḥmad Ibn Muyassar, jurist from Alexandria (d. 309 A.H./921 C.E.), 131

Aigues-Mortes, 75

Akriyat al-Sufun (treatise), 123, 124, 127–136, 138, 140

Álava, 179, 182

Alava (Basque province), 175

Alberti, Leon Battista. *See* Leon Battista Alberti (1404–1472)

Alberto Macaggi (Genoese businessman), 355

alcaldes (Iberian town judges), 171

Aleatory contracts, 72

Alexander Bonino of Alessandria (Alexander Lombardus de Alexandria), Franciscan theologian, (ca. 1268–1314), 72

Alfonso X, king of Castille (1221–1284), 172, 185, 190

Alguacil (bailiff), 244

© The Editor(s) (if applicable) and The Author(s) 2023

M. Fusaro et al. (eds.), *General Average and Risk Management in Medieval and Early Modern Maritime Business*,
https://doi.org/10.1007/978-3-031-04118-1

Alicante, 330, 331
Allaire, Bernard, 305, 369, 417, 419
al-Mahdiyya (location in Tunisia), 127, 129
Almirall (Aragon), 171
Almirantazgo (Southern Castile), 171
Alonso de Chaves, pilot and cosmographer (c. 1495–1587), 222, 228
Quatri partitu en cosmographia pratica, 228
al-Ṭaḥāwī, Egyptian Ḥanafī jurist and theologian (239–321 A.H./852–933 C.E.), 137
Amalfi, 265
Ambrogio de Rocchi, Tuscan merchant and writer (ca. 1374–1396), 74, 75
Ambrogio Digherio, Genoese merchant, 291
Amsterdam, 42, 57, 58, 62, 67, 70, 199, 315, 317, 330, 379, 390–396, 405, 409–411, 413, 425, 430
Ancona, 147, 264, 273, 332
Andalusia, 173, 174, 224
Andrea Doria, Genoese Admiral (1466–1560), 277, 278
Andrea Ghiles, shipmaster of Copenhagen in Genoa, 315
Andrés de Paz, ship-owner in Seville, 233
Andrés Franco, calculator in Seville, 247
Andries Hendricxz, first mate in Amsterdam, 403
Anonymous Senior, sixth century Byzantine jurist, 112
Antibes, 318
Antoninus Pius, Roman Emperor (86–161 CE), 98
Antonio Gracco, *patrone* of Alassio, 328
Antúnez y Acevedo, Rafael. *See* Rafael Antúnez y Acevedo
Antwerp, 25, 42, 57, 62, 67, 70, 193–196, 199–206, 209, 210, 213, 391, 410, 424–426, 428
Apulia, 317, 319, 332
Aquinas, Thomas. *See* Thomas Aquinas (1225–1274)
Aragon (Crown of), 172, 180, 266
Archivo General de Indias, 220, 239
Arenzano, 311
Aristotle, philosopher (384 BCE–322 BCE), 153
Nichomachean Ethics, 153
Arkangelsk, 329
Arnau de Vilanova (Arnaldus de Villa Nova), theologian and writer (ca. 1238–ca. 1312), 76
Ascanio Baldasseroni, jurist (1751–1824), 155, 165
Trattato delle Assicurazioni Marittime (1786), 155
Ashburner, William, 16, 48, 52, 103, 105, 106, 109, 114, 156
Asiento, 183
Assemblées de redaction, 417
Associative contracts, 338–340, 347
commenda, 339, 347
implicita, 339, 347
Assurantiemeesters (of the Amsterdam Chamber of Insurance and Average), 394, 411
Athenian law, 52
Atlantic, 7, 9, 56, 62, 66, 172–174, 180, 181, 185, 191, 216, 220, 224, 230–232, 298, 306, 316, 318, 319, 327, 330, 422
Audiencia de Grados (Royal court in Seville), 240, 245
Auditore (in Livorno), 370

Augustus, Roman Emperor (63 BCE–14 CE), 98
Average
  Arabic legal terms, 122
  assessment, 123, 131, 137, 139
  and bottomries, 349–351
  and the common good, 81
  contribution to/participation in, 23–24, 101–102, 104, 107–110, 117, 122, 125–126, 129–140, 186, 265, 272–273, 283, 401, 423–429
  definition of General Average (GA), 4–5
  destination, 23, 55, 127, 132–133, 139–141, 249, 273–274, 283, 285, 328, 343–344, 405, 411
  etymology, 121–122, 145–149
  as a form of contract, 49–51
  and Islamic rules, 16, 122, 124–142
  and Jettison. *See* Jettison
  and mutuality, 13–15, 19, 21, 29, 64–65, 80–82, 84, 158, 160, 162–165, 170–171, 181, 184, 216, 219, 255, 392
  origins, 4–5, 33, 48–49, 95, 98, 117–118
  place of purchase, 132, 273, 405, 423, 425–427
  port of origin, 132, 133, 139, 140, 322, 329
  relationship with insurance. *See* Average and insurance
  ship/vessel valuation, 123, 134–139, 292, 305, 327
  shipping charges, 133, 134
  types of. *See* Average types
  and the York-Antwerp Rules. *See* York-Antwerp Rules
Average and insurance, 230, 350, 420
  exclusion of Average from insurance in Venice, 12
  insurability of Average, 12–13, 203–206
  risk sharing versus risk shifting, 10–15, 64–67, 86–87
Average documents
  bill of lading, 23, 245, 286, 304, 327
  *calculus/calcolo/*calculation, 102, 104, 129, 133–137, 247, 273, 282–284, 286–287, 289–294, 298, 319–321, 327, 376, 377, 401–407, 426
  freight contract, 50–51, 198, 212, 304
  report/declaration/sea protest, 22, 23, 286, 288, 289, 292–294, 304, 376–378
    consolato (*consolati*), 23, 286, 287, 304, 370–372, 374, 380
    manifesto, 286, 287
    testimoniale e domanda, 370
    testimoniale (*testimoniali*), 286, 287, 298, 304, 370, 376, 381
Averages types
  Average, Contractual, 197–198
  Average, General (GA). *See* Average
  Average, Particular (PA), 151, 154, 165, 197–198, 204, 211, 228, 264, 301, 304, 320, 336, 349–353, 367, 371–373
  Average, Small (SA) (*gemeyne avarye, averías communes*), 180, 182, 197–198, 201, 204
  Avería de armada. See Averías (Castile)
  Avería de la nación (Low Countries), 178, 197–198, 207–213
  Avería de la Universidad. See Avería de la nación (Castile)

Avería [del comercio] de Indias. *See* *Averías* (Castile)
Avería gruesa (*avería de exceso, avería de echazón*) (Castile), 226–227
Avería gruesa (Castile). *See* Average, General (GA)
Averías (Castile), 181–184, 226–227
Avería(s) (Low Countries), 180, 197–198, 207, 214
Azores, Islands, 224
Azuni, Domenico. *See* Domenico Azuni (1749–1827)

B
Baldasseroni, Ascanio. *See* Ascanio Baldasseroni (1751–1824)
Balducci Pegolotti, Francesco. *See* Francesco BalducciPegolotti (ca. 1290–ca. 1347)
Baldus de Ubaldis (Baldo degli Ubaldi), jurist (1327–1400), 72, 81–83
Balearic Islands, 278, 331
Balkan region, 116
Balthazard-Marie Émérigon, jurist (1716–1784), 420
Barbary. *See* North African Regencies
Barcelona, 13, 262, 265, 266, 268, 270, 274, 277, 331
Barletta, 332
Barratry, 352
Barriers to entry, 66
Bartholomew of Saliceto (Bartolomeo da Saliceto/Bartholomaeus a Saliceto), jurist (ca. 1340–1411), 82
Bartholomew of S. Concordio (Bartolomeo da S. Concordio/Bartholomaeus de Sancto Concordio), Dominican writer (1262–1347), 73
Bartolus of Saxoferrato (Bartolus de Saxoferrato/Bartolo da Sassoferrato), jurist (ca. 1314–1357), 81, 82, 85
Basilica, 95, 112–114, 116–118, 147, 263, 264, 268
Synopsis Basilicorum maior, 114–116
Synopsis Basilicorum minor, 115, 116
Basil the Macedonian (Byzantine emperor) (811–886), 264
Basque region, 173
merchants, 175, 176, 179
shipping, 176
Bayajá (port in Cuba), 250
Beckert, Jens, 62, 87
Benedetto Cotrugli (1416–1469)
Book of the Art of Trade [*Libro de l'Arte de la Mercatura*], 78
Bernardino of Siena (Bernardinus Senensis/Bernardino da Siena) (1380–1444), 73, 85
Besançon (fairs of), 313
Bilbao, 67, 176, 177, 179, 188, 232, 238
Black Sea, 274, 275, 298, 299, 307
Bordeaux, 420
Borghesi, Vilma, 282
Bottomry, 54, 63, 64, 74, 340–352, 354, 356–359. *See also* *Cambium Maritimum*; Sea Loan
Bremen, 317
Brittany, 420
Bronk, Richard, 87
Bruges, 178, 181, 182, 193, 195, 199, 208–212, 391
Brusa, Alfio, 307, 308
Burgomaster (of Amsterdam), 391

Burgos, 67, 70, 176–179, 182, 188, 189, 203, 232, 238

C

Cadaqués, 331
Cadiz, 174, 175, 329, 330
Cagliari, 319
Calcolatori (*ufficio dei*), 280, 290
Calculus/calcolo, 298, 377, 426
Callistratus (Roman jurist, ca. 3rd Century CE), 97
Calvi, 328
Cambium Maritimum
  bottomry (bottomries) loan, 340
  bottomry contract, 340
  bottomry rate, 348
  prêts à la grosse aventure, 340
  respondentia loan, 340
Campania, 330
Cannes, 330
Canon law, 82
Cape of Good Hope, 56
Cape St. Vincent, 224
Capitán general de la flota de Indias (Captain General of the Indies fleet), 249
Caracas, 224
Carato (pl. *Carati*) (share of a ship), 309, 337, 346
Cargador/mercader tratante (merchant in the Indies' trade), 232, 233
cargo book (*shāmil*), 130
Carlo Benassai (merchant in Livorno), 378
Carlo Targa, jurist (1614–1710), 18, 23, 159, 161
  Ponderationi, 161
Carolus Vulstatuis (*calcolatore* in Genoa), 291
Carrera de Indias, 181, 216, 217, 219, 222, 223, 225, 228–231, 234, 236–240, 248, 255
Cartagena, 224, 251, 331
Casa de la Contratación, Seville, 203, 219–221, 223, 225, 227, 229, 231, 236–240, 242
Casaregi, Giuseppe Maria. *See* Giuseppe Maria Casaregi (1670–1737)
Caso fortuito (*casus fortuitus*), 18, 184, 221, 225, 227, 228, 250, 254, 255
Cassis, 318
Castellamare di Stabia, 318
Castille
  crown of, 170, 173, 174, 208
  region, 170
Castro Urdiales. *See Cuatro Villas de la Costa*
Casum sentit dominum, 151
Catania, 318
Ceccarelli, Giovanni, 11, 12, 14, 27, 33, 35, 42, 64, 65, 71, 72, 237, 341
Chamber of Insurance and Average (*Kamer van Assurantie en Avarij*), 390, 392, 393, 413
Chambre générale des assurances et grosses aventures (1668–1686), 416, 421
Charles II, King of England (1630–1685), 363
Charles V, HRE Emperor (1500–1558), 200–202, 395
Chartering, 176, 178, 186
Chiavari, 311
Chreokoinonia [χρεοκοινωνία] (debt-sharing), 105, 106
Cicero (Marcus Tullius Cicero), politician and writer (106 BCE–46 BCE), 99

Civil law, 82
Cleirac, Étienne. *See* Étienne Cleirac (1583–1657)
Code Michau (1629), 417
cofradías (Iberian brotherhoods), 170, 174
Cogoleto, 311
Colbert, Jean-Baptiste (1619–1683). *See* Jean-Baptiste Colbert (1619–1683)
Colbert, Jean-Baptiste Antoine, Marquis de Seignelay (1651–1690). *See* Jean-Baptiste Antoine Colbert, Marquis de Seignelay (1651–1690)
Collioure (location in France), 75
Comité Maritime International, 5, 25
Commenda, 35, 52, 54–56, 105
Commercial mathematics, 80, 83, 84
Commissioners (of the Amsterdam Chamber of Insurance and Average), 389, 394
Common danger, 15, 16, 101, 110, 117, 151
Common good, 81, 84, 85, 97, 100, 101, 118, 122, 136, 151, 170
Communio periculis (community of risk), 17, 101
Compagnie générale des assurances et grosses aventures (1686–c. 1710), 430
Compaña marítima, 219
compañeros, members of a *compaña maritime*, 219
Compilatae (Antwerp municipal laws) (1608), 195, 196, 200, 204, 205
Consejo de Indias (Council of the Indies), 223, 238
Conservatori del Mare. *See* *Conservatori del Mare*; Genoese Magistracies
Consolat de Mar (Consolato del Mare, Consulate of the Sea), 152, 156–157, 199, 205, 262, 263, 266–268, 271, 279, 385
  chronica de les promulgacions, 268
  collection of laws and regulations, 264
Consoli del Mare (magistracy in Pisa), 363, 368
Constantine Harmenopoulos, Byzantine jurist (1320–1385), 116
  Hexabiblos, 116
Consulado de Burgos, 178
Consulado de Cargadores a Yndias (Consulate of Merchants for the Indies Trade), 232
Consulado de Comercio (*Universidad de cargadores*) for the Indies Trade, 223, 234
Consulados, 174, 175, 178, 182, 188–191, 208, 232
Consulados (in Spain), 179, 182
Consular courts in the low countries, 196, 206, 392, 409
Contraband, 173, 352
Contract
  enforcement, 35, 39, 40, 43, 65, 391, 410
  theory, 59
Contract of carriage (*locatio conductio operis*), 100, 105, 111, 117, 133, 150
Contributory value, 138, 405
Convoy sailing, 63, 216, 251
Coral
  fishing, 63
  trade, 299
Cordes, Albrecht, 6, 22, 25, 195, 245
Corfu, 330
Cornelis de Schepper (civil servant for Charles V), 201

Cornelis Jansz Valckenier (Amsterdam Chamber Commissioner), 412
Coro (location on the Venezuelan Coast), 224
Corominas, Joan, 225
Corporation, 35, 52, 56–58, 60, 172, 176
Corpus Iuris Civilis
  Codex, 96, 103, 112
  Digest, 96, 112
  Institutes, 96, 112
  Novels, 96, 112
Corrieri, Salvatore, 263, 265, 268, 273
Corsairs, 186, 223, 228, 232, 233, 380, 422
Corsica, 298, 328, 330
Cortes of Toledo, 188
Costumbres de Valencia (1250), 265, 266
Costuymen (compilations of municipal customs in Antwerp)
  1548, 204
  1570, 204
  1582, 204
  1608, 204
Cotrugli, Benedetto. *See* Benedetto Cotrugli (1416–1469)
cottimo (French duty), 364, 366, 374–376, 378, 385
Councillors of Barcelona, 270
Council of the Indies (*Consejo Real y Supremo de las Indias*) (1524), 223
Crete (island), 155, 372
Crew
  maestre (in the Indies fleet), 187, 234
  nochiero (boatswain), 271
  pennese, 272
  Pilot, 175, 220, 227, 233, 236, 249, 250, 398
  Scrivano/scribe, 160, 272, 281
  Shipmaster (*Dominus*/*Magister*), 18, 136, 271, 273, 427
Cristóbal Coello, *maestre* of the *Nuestra Señora del Rosario*, 253
Cristóbal de Eraso, Captain general of the fleet (1580), 251
Cristóbal Monte Bernardo, ship-owner in Seville, 233
Crown of Aragon, 172, 266
Crown of Castile, 170, 173, 174
Cuatro Villas de la Costa (San Vicente de la Barquera, Santander, Laredo, and Castro Urdiales), 173
Cubagua (location on the Venezuelan Coast), 224
Cumaná (location on the Venezuelan Coast), 224
Curatore (position in the Court of the *Consoli del Mare* in Pisa), 379, 380
Custom (*ʿurf*), 126
Cyclades, 98

D

Dalmatia, 313
Damages (calculation of). *See* Averages, calculus
Danzig, 315–317, 403
Datini archive, 12
David Hume (1711–1776), 385
de Chaves, Alonso. *See* Alonso de Chaves
Decision theory, 63
Defensor de los muertos y ausentes (Representative in court of dead and absents), 247
de Hevia y Bolaños, Juan. *See* Juan de Hevia y Bolaños, jurist (1570–1623)

de Medina, Pedro. *See* Pedro de Medina
Denier de nation, 182, 211. *See also Massaria*
Denmark, 322
de Palacio, Diego García. *See* Diego García de Palacio
de Rocchi, Ambrogio (ca. 1374–1396). *See* Ambrogio de Rocchi (ca. 1374–1396)
de Solórzano Pereira, Juan. *See* Juan de Solórzano Pereira
de Veitia y Linaje, José. *See* José de Veitia y Linaje (Linage)
Diego García de Palacio, judge and jurist (1542–1595), 222
  Instrvción Navthica (1587), 215, 234
Diego Pérez de Porras, calculator in Seville, 247
Digest. *See Corpus Iuris Civilis*
dinero de Dios, 177
Dini, Bruno, 75
direito da nação, 198, 207
Dispaches (GA judgments), 401, 409
Di Tucci, Raffaele, 264, 267, 275, 339
Doehard, Renée, 147
Domenico Azuni, jurist (1749–1827), 164
Domenico Centurione, Genoese businessman, 357
Domenico Lanata, Genose businessman, 356, 357
Dominica, 224
Dover, 330
Dreijer, Gijs, 193
droit d'avarie, 207
Dueño de nao/señor de nao/capitán. *See* Ship-owner
Dutch East India Company (VOC), 58, 394
Dvina, 329
Dyble, Jake, 6, 9, 13, 145, 282, 308, 363

E
East India Company (EIC) [English], 58
Echazón (jettison). *See* Jettison
Edict of Nantes (1598), 314, 318
Eleanor of Aquitaine, Queen of France and Queen of England (ca. 1122–1204), 152
Elizabeth I, Queen of England (1533–1603), 85
Émérigon, Balthazard-Marie. *See* Balthazard-Marie Émérigon (1716–1784)
England, 75, 195, 329, 369, 383, 385, 418, 420
Escalante de Mendoza, Juan. *See* Juan Escalante de Mendoza
Eschevin Court in Amsterdam (*Schepenbank*), 392–394
Estates of Holland (*Staten van Holland*), 394, 409, 410
Étienne Cleirac, jurist (1583–1657), 17, 420
  Us et coustumes de la mer (1648), 86, 425
Eudaemon of Nicomedia, petitioner, 98
Exclusionary clauses, 12

F
Fairs of Besançon, 313
Felloni, Giuseppe, 263, 279, 294, 298, 304, 307, 309, 315, 326, 336, 339, 354
Ferdinand III, King of Castile (1199–1252), 185

Fernández de Castro, Ana Belem, 241, 242
Fernando de Lodeña, Captain General of the Indies fleet (1595), 254
Filippo Camere, notary of the *Conservatori del Mare* in Genoa, 291
Filippo Maria Calandri, mathematician (1468–?), 83
Finch, John. *See* John Finch
Flanders, 74, 179, 220, 278, 329, 420
Fletamentos. *See* Chartering
Flete. *See* Freight
Florence, 13, 46, 65, 67, 69, 70, 88–91, 210, 363
Foenus Nauticum. *See* Sea Loan
Force majeure, 265, 367, 373
Forecasting, 71, 72, 75, 78, 83
France, 195, 206, 276, 305, 306, 314, 318, 350, 416–419, 422, 430
Francesc Eixemenis, Franciscan friar and writer (1330–1409), 73
Francesco Balducci Pegolotti, merchant and writer (ca. 1290–ca. 1347), 74
  Pratica di mercatura, 74, 75
Francesco Barbieri, Genoese businessman, 356, 357
Francesco Bellinzani, Statesman (d. 1684), 421
Francesco Foscari, Doge of Venice (1373–1457), 156
Francesco Maria Zanatta, Genose businessman, 356, 357
Francesco of Empoli (Francesco da Empoli), Francisca theologian (ca. 1320–1370), 73
Francesco Patrochi, *Procuratore* in the Court of the *Consoli del Mare* in Pisa, 371
Francesco Rocco, jurist (1605–1676)
  De Navibus Et Naulo… (1655), 161
Francesco Saverio Viale, Genoese businessman, 356
Francesco Spinola, Genoese merchant, 291
Francisco Coloma, Captain general of the fleet (1594), 248
Francisco Martín Rucho, *maestre* of the *Nuestra Señora de la Concepción*, 249
Francis Drake (Sir), 254
Franco-Dutch War (1672–1678), 419, 422
Frankot, Edda, 22, 152, 199, 200, 425
Frans Oetgens van Waveren, Amsterdam Chamber Commissioner, 394
Freight (fees), 123, 134, 137, 218, 236, 239, 246, 248, 384, 401, 405, 407
Freight rates, 283, 315
French Wars of Religion (1562–1598), 314
Frondes (1648–1653), 418, 419
Fuero Juzgo (*Libro de los Jueces*), 185
Fuero Real, 185
Fusaro, Maria, 4, 9, 17, 21, 33, 35, 36, 61, 145, 193, 237, 269, 284, 305, 364, 367, 369, 382, 390, 417

G

Gabella di sicurtà, Genoese tax, 348
Gambling/wagering, 71, 72, 79, 84
Garland, David, 4, 19
Gauci, Gotthard Mark, 17, 29
Gdansk. *See* Danzig
Gelderblom, Oscar, 11, 58, 195, 209, 232, 391, 392

gemeyne avarye. *See* Average, Small (SA)
generala: ship officers' cargo allowance free of freight, 218
Geniza, 128
Genoa
- free port (*portofranco*), 300, 306, 366
- legislation, 13, 259, 262, 276
- port of, 293, 298, 300, 301, 306, 307, 318, 319, 321–323, 328, 329
- Republic, 275, 299, 306, 328, 338

Genoese
- bankers, 298
- Century of, 298
- charterers, 335
- Civil Statutes (*Statuti Civili*), 259, 261, 262, 265, 279–281
- diaspora, 298
- insurers, 294, 298, 335, 349
- *Leges Novae*, 278
- merchant/s, 209, 210, 212, 316, 317, 319, 329, 335
- patrician/s and patriciate, 356
- ship-owners, 298, 335
- statutes of Gazaria, 274
- statutes of Pera, 274

Genoese magistracies
- calculators (*calcolatori*), 280, 289–291, 294
- *Camera*, 278
- *Conservatori del Mare*, 18, 277, 287, 291, 344
- Doge, 278
- *Maggior Consiglio*, 278
- *Magistrato di Avaria*, 294
- *Minor Consiglio*, 278
- *Officium Gazariae*, 276, 277
- *Officium Maris*, 277
- *Padri del Comune*, 287, 290, 291, 326
- *Podestà*, 275
- *Rota Civile*, 291, 295
- *Rota Criminale*, 293
- *Serenissimi Collegi*, 278

Geoffrey of Trani (Goffredus de Trano) (ca. 1200–1245), 82
Germany, 322, 330
Germinamento (*agermanar*), 18, 51, 158, 160–162, 164, 165, 263
Gerolamo Carrosio (Genoese businessman), 357
Gerrit Bicker (Amsterdam Chamber Commissioner), 394
Giacomo Gould (merchant in Livorno), 381
Gibraltar (Strait of), 173, 307, 322
Gilles Jansz Valckenier (Amsterdam Chamber Commissioner), 394
Giovanni di Antonio da Uzzano, merchant and writer (1420–1445), 78
- *Pratica di mercatura*, 75

Giovanni di Paolo Rucellai, merchant and writer (1403–1481)
- *Zibaldone*, 77

Giovanni Francesco Cardi (merchant in Livorno), 377
Giovanni Mineman (shipmaster in Genoa), 315
Giovanni Nicolò Crosa (Genose businessman), 356, 357
Giovanni of Prato (Ioannis de Prato) (ca. 1400–ca. 1460), 73
Giuseppe Brentani (Genoese businessman), 356, 357
Giuseppe Lupi (Genoese businessman), 357
Giuseppe Maria Casaregi, jurist (1670–1737), 266
Glasgow agreements (1860), 260
Glennie, Angus, 21
Goldschmidt, Levin, 51, 159

Gonzalo Pérez, *maestre* of the ship *Santa Cruz*, 245
Governor of Livorno, 370
Go, Sabine, 7, 58, 61, 80, 220, 374, 382, 390, 426
Grand Condé (Louis de Bourbon, Prince of Condé), statesman (1621–1686), 418
Grazia de Castellani (Gratia de' Castellani) Agustinian friar and theologian (?–1401), 83
Great Council of Mechlin, 196
Gregory IX, Pope (ca. 1150–1241), 340
Greif, Avner, 38, 46, 65, 164
Gremios (guilds), 174
Grendi, Edoardo, 280, 298, 299, 301, 306–308, 310, 313, 314, 325
Grinberg, Martine, 416, 417
Guadalquivir, 173, 174
Guidon de la mer (late Sixteenth Century), 420, 423, 425, 428
Guilders (Dutch currency), 398, 403, 405, 407, 409
Guipuzcoa, 173, 178, 179, 182

H

Haarlem, 315
ḥajj (pilgrimage), 130
Harris, Ron, 8, 53, 55, 57, 58, 63, 106, 142, 150, 195, 342
Havana, 224, 244, 253
Hendrick Eysbrechts, boatswain in Amsterdam, 403
Henri IV, King of France (1553–1610), 417
Hermandad de la Marina de España (*Hermandad de la Marisma*), 172
Hermogenian, Roman jurist (ca. 3rd Century), 97
Hexabiblos (14th Century), 115–117
Heye Hiddesz, shipmaster from Harlingen, 403
Hieronimus Pallavicinus, *calcolatore* in Genoa, 291
Hof van Holland en West-Friesland (Court of Holland, Zeeland and West-Friesland), 394
homo oeconomicus, 28
Honduras, 224
Hont, Istvan, 385
Hooge Raad (High Council), 394
Hoorn, 315
Hordenanzas of the Castilian *natio* in Bruges (1569), 195, 203, 204, 213

I

Icaria (Greek island), 98
Implicita. *See* Associative contracts, *implicita*; Sea Loan
India, 136
Indian Ocean, 56
Information, 20, 37, 41, 43–47, 53, 58, 59, 222, 248, 304, 309, 316, 325, 340, 373, 384, 395, 426
  asymmetries, 35, 426
  costs, 39, 41, 71
Institutional developments, 60, 390, 391, 413
Institutions, 11, 33, 35, 38, 39, 46, 47, 52, 58, 59, 157, 170, 182, 190, 191, 220, 223, 237, 265, 339, 350, 390, 430
Insurance
  brokers, 70, 71
  claims, 67, 372
  co-insurance, 68
  hull, 20
  joint-stock companies, 68, 349
  marine, 33, 36, 37, 39, 41, 42, 46, 49, 51, 56, 62, 67, 71, 75, 78,

85, 194, 342, 391–393, 395, 409, 411, 420
mutual, 14, 157, 162, 163, 187
premium, 10, 44, 55, 56, 62, 64–66, 68, 73, 74, 79, 84, 85, 87, 164, 384
Insurance clauses
Free of Average and jettison (*franco d'avaria e gettito*), 352
Free of Average (*franco d'avaria*), 12, 352
Free of jettison (*franco di gettito*), 352
Insurers (leading), 70, 71, 90, 91
Iodice, Antonio, 13, 15, 204, 285, 304, 305, 321, 332, 350, 351, 370, 385
Isle of Wight, 330
Italy, 12, 53, 55, 62, 63, 278, 318, 319, 321, 322
Ius commune, 17, 188, 242, 266

J

Jacques Savary, merchant and writer (1622–1690)
Le parfait négociant (1675), 423
Jactus Navium. *See* Jettison
Jean-Baptiste Antoine Colbert, Marquis de Seignelay, statesman (1651–1690), 430
Jean-Baptiste Colbert, statesman (1619–1683), 415, 421
Jean-Marie Pardessus, jurist (1772–1853), 262
Jettison (getto/*jactum*/*echazón*), 4, 16, 48–49, 51, 80–81, 96–97, 99–101, 104, 129, 151, 184–187, 228–230, 265, 270–274
commercial commodities/goods, 80, 132
criteria, 124–126, 228, 280–282, 398
heaviest, nearest, or accessible, 126, 127, 139, 398
human jettison, 123
irregular (*forzoso*), 159, 273, 284, 350, 351
place of, 132, 133, 139
private belongings/possessions, 132, 134
regular (*piano*), 158–160, 350
John Finch (Sir), English Resident in Florence (1626–1682), 363, 367
John of Freiburg (Johannis de Friburgo), Dominican theologian (ca. 1250–1314), 82
Joint, 64, 122, 209
Joint-stock (business corporation), 56, 57
Jonah (biblical story of), 49
José de Veitia y Linaje, judge and treasurer of the *Casa de Contratación* (1623–1688), 221
Joseph Haydn, composer (1732–1809), 26
Juan de Hevia y Bolaños, jurist (1570–1623), 252
Juan de Solórzano Pereira, jurist and magistrate (1575–1655), 221, 242
Política Indiana (1648), 231
Juan Escalante de Mendoza, General of the *Tierra Firme* fleet and writer (ca. 1545–1596), 222, 227
Juan Henriquez, Antwerp-based Castilian insurer, 205, 213
Juan Rodríguez de Noriega, ship-owner in Seville, 233
Jules Mazarin, Cardinal and Minister in France (1602–1661), 418, 419
Julián Izquierdo, calculator in Seville, 247

Julian, Roman jurist (ca. 110–ca. 170), 97
Julio Ferrufino, calculator in Seville, 247
Justinian, Byzantine emperor (482–565), 15, 48

K

kerven (cutting mast and/or ropes), 202
Kingdom of
  Castile, 182, 298
  Naples, 298
  Sicily, 299
Knight, Frank, 35–39, 41, 43, 44, 49, 58, 59
  Risk, Uncertainty and Profit, 36

L

Labeo (Marcus Antistius Labeo), Roman jurist (d. 10/11 CE), 97
Laredo. *See Cuatro Villas de la Costa*
La Rochelle, 318, 420
Latina, 320, 330
Law Merchant. *See Lex Mercatoria*
Laws of Baltic Sea. *See* Wisby (Laws of)
Laws of Catalans. *See Consolat de Mar*
Laws of North-East Atlantic and North Sea. *See Rôles d'Oléron*
Laws of Trani, 156
Laws of Venice, 264
Lefebvre d'Ovidio, Antonio, 262
Le Havre, 317, 318
Leo III the Isaurian, Byzantine Emperor (r. 717–741), 155
Leon Battista Alberti (1404–1472)
  Momus, 76
  On the family, 76, 77
Leo VI the Wise, Byzantine emperor (866–912), 264
Lesser Antilles, 224
Letrado (Licenced lawyer), 242
Levant, 54, 265, 313, 365, 366, 368, 374, 383
Lex mercatoria, 22, 25
Lex Rhodia de Jactu
  reception of, 15
Leyes de Layrón, 186
Liability, 64, 84, 96, 107, 153, 197, 199, 202–204, 210, 213, 271, 353
Liber Gazariae, 279
Libro de los Jueces. *See Fueros Juzgo*
Ligurian
  Gulf, 310
  ports, 300, 307, 321
  Sea, 262, 279
Lima, 232, 242
Limited, 64, 65, 68, 69, 199, 245, 274, 305, 307, 339, 347, 348, 351, 356
Lira/e (Genoese currency), 326
Lisbon, 206, 330
Livorno, 67, 282, 305, 306, 308, 325, 328, 330, 333, 364–366, 368, 369, 372, 374, 376, 378, 381, 385
livres tournois (French currency), 422
Lloyds of London, 58
locatio conductio operis (as contract of carriage), 100
London, 42, 62, 67, 70, 75, 203, 330, 363, 381, 384, 385, 430
London Gazette, 380
Lorenzo Ridolfi (Laurentius de Rodulphis), canonist and writer (1362–1443), 73
Louis XIII, King of France (1601–1643), 328, 417
Louis XIV, King of France (1638–1715), 416, 418, 419, 421, 429

Low Countries
northern, 199
southern, 194–196, 214, 409
Lowndes & Rudolf, 21
Lübeck, 200, 315–317
Luca Pacioli (Lucas de Burgo S. Sepulchri), Franciscan friar and mathematician (ca. 1446–1517), 80
Summa de arithmetica (1494), 80
Lucca, 210
Luke (Evangelist), 96

M
Maḍmūn ibn Ḥasan (Adenese mercantile representative), 136
Maestre(s). *See* Crew, *Maestre* (Indies trade)
Magistrato di Sanità (Florence), 381
Majorca (Mallorca), 284, 318
Mālikī scholars (9th–10th Centuries C.E.), 130
Mallorca. *See* Majorca
Manfredonia, 332
Maracaibo, 224
Maravedí (Spanish coin), 238
Marcantonio Pittaluga, Genoese businessman, 357
Marche, 317, 319
Mare clausum and *mare liberum*, 8
Maremma, 314
Margarita Island, 224
Maridaki-Karatza, Olga, 106
Maritime loan. *See* Sea Loan
Marseille, 232, 318, 325, 327, 331, 365, 366, 374–376, 378, 385
Martín de Montebernardo, *maestre* and owner of the *Santa Ysabel*, 251
Martino Zornoza, Imperial consul in Venice (ca. 1539), 269
Massaria, 182, 198, 207. *See also Denier de nation*
Master. *See* Crew, Shipmaster
Mechlin. *See* Great Council of Mechlin
Mediterranean, 7, 9, 21, 22, 34, 42, 47, 50, 53, 54, 56, 57, 122, 142, 152, 155, 164, 173, 174, 180, 185, 239, 259–262, 264–268, 284, 298, 299, 305, 306, 313–316, 318, 321, 322, 327, 330, 338, 365, 366, 383, 385
Meeks, Elijah, 34
Merchant Law. *See Lex Mercatoria*
Merchants and Crew Consultation, 140, 371
Merchants and ship-owners
Armenian, 382
Chinese, 149
English, 291, 364, 385, 386
Jewish, 382
Messina, 314, 318, 332, 377
Mexico, 224, 232
Michael Attaleiates, Byzantine historian and jurist (ca. 1022–1080), 115
Ponema Nomikon, 115, 117
Michael Belhomus, *calcolatore* in Genoa, 291
Michael VII Doukas, Byzantine emperor (ca. 1050–ca. 1090), 115
Michel'Angelo Frosini, *Procuratore* in the Court of the *Consoli del Mare* in Pisa, 371
Michele Moneta, *curatore* in the Court of the *Consoli del Mare* in Pisa, 379
Middelburg (Zeeland), 211, 315
Milazzo, 372
Mogador (Essaouira in Morocco), 356
Molagium, duty In Genoa, 326

Molho, Anthony, 86
Monaldus of Capodistria (Monaldus Iustinopolitanus), Franciscan theologian (ca. 1210–ca. 1288), 73
Monte di pieta, 86
Moral hazard, 15, 19, 45, 154
Morocco, 356
Mudarabah. See qirāḍ
Muḥammad Ibn ʿAbd al-Ḥakam, Mālikī jurist (d. 268 A.H./881 C.E.), 134
Muḥammad ibn ʿUmar al-Kinānī al-Andalusī, Mālikī jurist (d. 310 A.H./923 C.E.)
  Kitāb Akriyat al-Sufun, 123, 140
Muhammad III (Muḥammad ibn ʿAbd Allāh), sultan of Morocco (1710–1790), 356
muḥāṣṣa (*maqāṣṣa*) (compromise of settlement), 122
Mutual insurance, 14, 157, 162, 163, 187
Mutualisation, 170, 180, 184, 190

N

Nationes
  Biscayer (in Bruges), 207, 209, 214
  Castilian (in Bruges), 195, 202, 207
  Catalan-Aragonese (in Bruges), 208
  Florentine (in Bruges), 212
  Genoese (in Antwerp), 210
  Genoese (in Bruges), 198
  Hanseatic (in Bruges), 200
  Lucchese (in Bruges), 212
  Portuguese (in Antwerp), 206
  Portuguese (in Bruges), 207
  Venetian (in Bruges), 212
navalis societas or *societas et communio tacita* (tacit maritime partnership), 17
Naviganti, Decretal (1237), 341
Nero, Roman Emperor (37–68), 96
Nervión River, 176
New Institutional Economics (NIE), 10, 11
New Spain, 224
Nicolao Scaglie, Genoese merchant, 291
Nicolò Ghiara, Genoese businessman, 355
Nicolò Machiavelli, Tuscan writer (1469–1527), 77
Nicolò Maria Cavagnaro, Genoese businessman, 355, 357, 358
Nine Years' War (1688–1697), 430
Nizza-Villafranca, 366
Nombre de Dios, 224, 251
Nómos Rhodìon Nautikós. See Rhodian Sea-Law
Normandy, 420
North African Regencies, 332
North, Douglass, 10, 35, 38, 65, 390
Northern Europe, 13, 173, 239, 307, 308, 313, 314, 316, 325, 328–330, 332, 368, 420
  masters, 378
  shipping, 305, 306
Notaries, 245

O

Ocoa (San José de Ocoa), 224
Old Bahama Channel, 224, 248, 254
Old Testament, 5
Olivier-Martin, François, 429
Omslag (GA factor), 401
Ordenamiento de Alcalá (1348), 188
Ordenamiento de Montalvo (1484), 187, 188
Ordenanzas de la Casa de la Contratación de Sevilla (1556), 229, 230
Ordenanzas of Barcelona (1435–1484), 13

Ordinamenta et consuetudo maris, Trani (1063), 147
Ordinancie of Amsterdam (1413), 425
Ordonnance civile (1667), 419
Ordonnance criminelle (1670), 419
Ordonnance de la marine (1681), 415, 416, 419
Ordonnance of Charles V (1550), 201
Ordonnance of Charles V (1551), 200, 201
Ordonnance of Philip II (1563), 202
Ordonnance sur le commerce (1673), 419
Ordonnance sur les eaux et forêts (1669), 419
Ordonnantie op 't Stuk van de Asseurantie (1598), 393
Øresund. *See* Sound, the
Ottoman Empire, 140

P

Pactos de hermanamiento, 180
Palermo, 318, 332
Panama, Isthmus of, 224
Paolo di Castro (Paulus de Castro), jurist (ca. 1360–1441), 80
Paolo Gherardi, mathematician (fl. 1328), 83
Papinian, Roman jurist (142–212), 97, 100
Pardessus, Jean-Marie. *See* Jean-Marie Pardessus (1772–1853)
Paris, 417, 421–423, 426, 430
par periculi causa (equal exposition to risk). *See* Risk, Equal exposition to risk
Partnership (contract), 104
Passengers, 48–50, 100, 104, 105, 111, 126, 127, 136, 139, 286, 320
Patrone/Patronus, 309, 310
Paul (Apostle), 96
Paul, Roman jurist (ca 2nd and 3rd Century)
 Sententiae, 97, 99, 151
Pawnbroking, 86
Pedro Araneder, owner and *maestre* of the *Santa Ana*, 244
Pedro de Medina, historian and writer (c. 1493–1567), 222
Pedro de Veiztegui, *maestre* of the *San Buena Ventura*, 250
Penna, Daphne, 16, 49, 55, 116, 145, 147, 150, 186, 219, 263, 264, 375, 423
Pera, 270, 274–277
Pérez-Mallaína Bueno, Pablo Emilio, 233
Peter of John Olivi (Petrus Johannis Olivi), Franciscan theologian (1247–1298), 72, 73
Petrus de Trabibus (Peter of Trabibus), Franciscan theologian (ca. 1250–ca. 1298), 72
Philip II, King of Spain (1527–1598), 202, 203
Piccinno, Luisa, 13, 15, 42, 63, 67, 204, 244, 277, 285, 287, 300, 304, 305, 320, 325, 332, 336, 341, 350, 382
Pier Filippo della Cornia (Petrus Philippus Corneus), jurist (ca. 1420–1492), 82, 86
Piergiovanni, Vito, 262, 295
Pieter Jansz Reael, Amsterdam Chamber Commissioner, 412
Pieter Matthijsz Schrijver, Amsterdam Chamber Commissioner, 412
Pieter Pietersz Hasselaar, Amsterdam Chamber Commissioner, 412
Pilot. *See* Crew, Pilot
Pilotage, 197–202
Piombino, 330

Pirates/piracy, 34, 47, 48, 51, 52, 63, 75, 79, 101, 137, 151, 201, 204, 319
Pisa, 46, 55, 75, 88–91, 265, 368
Placcaat of 1563, 397
Plato, philosopher (ca. 425–348 BCE), 30
Plymouth, 330
Poland, 322
Portobelo, 224
Portofino, 311
Portolano (*Portolani*), 269
Portuguese merchants, 201
pragmática (charter), 178
Prêts à la grosse aventure, 340
Prior and *cónsules* (Leaders of the Consulate of Merchants for the Indies Trade), 238
Privateers, 309
Probability/ probability calculus, 42, 46, 53, 58, 63, 83
Procuratori (attorneys in the Court of the *Consoli del Mare* in Pisa), 371
Property rights, 35
Protection and Indemnity Clubs (P&I Clubs), 14
Protection costs, 14, 197, 198, 207–209, 211–214
Provence, 299, 308, 314, 318, 328
Pseudo-Paul, Roman jurist (ca. 300 CE), 97, 99
Pseudo-Rhodian law. *See* Rhodian Sea Law
Ptolemy Philadelphus, King of Egypt (r. 284–246 BCE), 155
Puerto Caballos, 224
Puerto Rico, 224
Punta del Diamante (near the bay of Cádiz), 251

Q
qāḍī (judge), 141
qirāḍ (*commenda*), 142
Quantitative data, 14, 15, 297
quintalada (*pacotilla*): seamen's cargo allowance free of freight, 218
Quintin Weytsen (Quintinus Weytsen), jurist (1518–1565), 5, 202
  Tractatus de Avariis, 152

R
Rafael Antúnez y Acevedo, jurist and historian (ca. 1736–1800), 221
Ragusa (Dubrovnik), 67, 70, 300, 305
Real Audiencia de la Casa de la Contratación de las Yndias (Royal Court), 239, 243
Receptum nautarum, 50
Recopilación de Leyes de los Reynos de las Indias, 229, 239
Reformationes Novae (Genoa), 278
Remie Constable, Olivia, 80, 269
Réné-Josué Valin, jurist (1695–1765), 420
Repartimiento (Division of payment between interested parties), 248
Reputation. *See* Trust and reputation
Restrictions by law, 351, 352
Reward, 114, 116, 290
Reyner Jansz Reael, Amsterdam Chamber Commissioner, 412
Rhodes
  city, 98, 118, 264
  island, 98
Rhodian Sea Law (The), Pseudo-Rhodian law (*Νόμος Ροδίων Ναυτικός–Nomos Rhodion Nautikos*), 97, 103, 106, 114
Riga, 403, 405
Risk
  allocation, 68, 71

aversion, 71
contingent, 75
equal exposition to risk (*par periculi causa*), 72
mitigation, 33, 37, 57, 59, 68
pooling, 57
premium, 37, 43, 53, 54
sharing, 14, 86, 87, 392
shifting, 10, 14, 47, 64, 67, 74, 86, 87
spreading, 38, 39, 41, 64, 65, 67
structural, 79
Riviera (*Riviere*) on the Ligurian Coast
Levante, 310
Ponente, 310
Rocco, Francesco. *See* Francesco Rocco
Rodolakis, George, 103, 113, 114
Rodrigo Madera, *maestre* of the *Espiritu Santo*, 254
Rôles d'Oléron (ca. 12th Century), 152, 199, 420, 426, 428
Roman Empire, 46–50, 53, 260
Roman law, 6, 17, 147, 150, 157, 199, 201, 260, 263, 265, 267, 268, 270, 272, 276, 280
Rossi, Guido, 7, 10, 11, 19, 42, 67, 145, 202, 203, 206, 285, 305, 342, 371
Rotterdam, 317, 410
Rucellai, Giovanni di Paolo. *See* Giovanni di Paolo Rucellai (1403–1481)

S

Saint Tropez, 318
Salamis, 155
San Juan de Puerto Rico, 254
San Juan de Ulúa, 224, 253
Santander. *See Cuatro Villas de la Costa*
Santiago de Cuba, 224
Santo Domingo, 224, 245
San Vicente de la Barquera. *See Cuatro Villas de la Costa*
Sardinia, 317, 319, 322, 328
Savary, Jacques. *See* Jacques Savary (1622–1690)
Savelli, Rodolfo, 261, 262, 278–280
Savona, 311
Savoy, Duchy of, 319
Scheidel, Walter, 34
Schifato (duty in Genoa), 326
scholia (marginal notes), 112
Sciacca, 332
Scotland, 420
Scott, Robert, 33, 35, 39–41, 44, 46, 50, 51, 56, 57, 60
Scribe. *See* Crew, *scrivano*
Scylla and Charybdis, 232
Sea Loan
bottomry, 54, 63, 64, 74, 340, 341
respondentia, 54
Serafino Palmeri, Genose businessman, 356, 357
Seville, 172, 174, 189, 203, 208, 217, 223, 225, 229, 233, 238, 240, 244, 253, 330
shāmil. *See* cargo book (*shāmil*)
Ship/s
Alice and Frances (in Livorno), 379, 380, 382
Cavallo Marino (in Livorno), 373
Espiritu Santo (Havana to Spain), 254
La Carità (in Genoa), 315
La Madonna del Rosario, San Domenico e Sant'Antonio di Padova (in Livorno), 371
L'Huomo Libero (in Genoa), 329
Madonna di Monte Nero (in Livorno), 377

Mercante Fiorentino (in Livorno), 381
Nuestra Señora de Begoña (in San Juan de Puerto Rico), 254
Nuestra Señora de la Concepción (San Juan de Puerto Rico to Seville), 249
Nuestra Señora del Rosario (in Havana), 253
Principe Enrico Casimiro (in Livorno), 379, 382
San Buena Ventura (in Bayajá), 250
Sancti Luiggi (in Genoa), 329
San Miguel (in Cadiz), 250, 251
San Pietro Bonaventura (in Genoa), 328
Santa Ana (Havana to Spain), 244
Santa Cruz (in Santo Domingo), 245
Santa Ysabel (in Cartagena de Indias), 251
Speranza Incoronata (in Livorno), 379
The Three Kings (in Genoa), 315
Ship *almiranta*/leading and armed ship in the Spanish Indies fleet, 249
Ship *capitana*/leading and armed ship in the Spanish Indies fleet, 249
Shipmasters. *See* Crew, Shipmaster
Ship-owner/s, 14, 63, 64, 79, 136, 138, 141, 142, 155, 176, 186, 187, 218, 227, 233, 234, 236, 246, 285, 288, 290, 335, 338, 346, 348, 376, 393, 401, 411, 413, 420, 427
Shipwreck, 34, 47, 96, 103, 104, 107, 108, 164, 186, 188, 231, 242, 250, 271, 336, 351
Sicily, 129, 300, 312, 313, 318, 319, 322, 332, 333
Siete Partidas (Mid-Thirteenth Century), 185
Simon, Dieter, 113
Slave/s, 102, 132, 134, 230, 282
Sorrento, 318, 330
Sound, the, 405
South America, 224
Southampton, 75
Southern Italy, 63, 318, 319, 321, 322
Special jurisdictions, 172
Stallagio (port duty in Livorno), 366
Statuta ed ordinamenta super navis (Venice, 1255), 147
Statute Book (of the Amsterdam Chamber of Insurance and Average), 390
Stephen Dring, English shipmaster in Livorno, 381
Stowage, 220, 244, 270, 320, 353
Strabo, geographer and philosopher (ca. 64 BCE–c. 24 CE), 98
strangen (voluntarily running aground), 200, 202
Superstition, 72

T

Tabarka, 15, 319, 332
taqsīṭ (equitably/justly), 122
Taranto, 332
Targa, Carlo. *See* Carlo Targa (1614–1710)
Tazzara, Corey, 365, 366, 382
Tercero calculador (expert in the division of payments), 247
Testimoniale. *See* Averages/*testimoniale*
Texel, 315, 317, 330
Theology, 27, 71, 85
Theseus' ship (paradox), 165
Thirty Years' War (1618–1648), 305, 306, 328

Thomas Aquinas, theologian (1225–1274), 72, 82
Tierra Firme, 224, 227, 254
Todeschini, Giacomo, 27
Toulon, 318
Trani, 82, 147, 156, 264, 332
Transaction costs, 6, 10, 38, 39, 41, 44, 54, 59, 60, 65, 261, 315, 411
Trapani, 318, 332
Treaty of the Pyrenees (1659), 418
Trinidad (on the Venezuelan Coast), 224
Trivellato, Francesca, 4, 17, 20, 27, 55, 86, 382, 384, 419, 420
Trullo, 224
Trust and reputation, 357
Tuna Court Tokyo, 413
Tuscany, 75, 308, 328, 363, 365, 368–370, 378
Type of ships
  Barca (*barche*), 320
  Brigantino, 320
  Cimba (*cimbe*), 320
  Feluca (*feluche*), 320
  Fiamminga, 320
  Frigata/fregata (frigate/*fregate*), 320
  Galeone (*galeoni*), 320
  Galeonetto (*galeonetti*), 320
  Latina, 320
  Leudo (*leudi*), 327
  Nave (*navi*), 320
  Pinco (*pinchi*), 311
  Polacca (*polacche*), 320
  Saetta (*saette*), 320
  Tartana (*tartane*), 320
  Urca/orca, 320
Tyrrhenian Sea, 330

U
Udovitch, Abraham, 16, 22, 131
ummah (global Muslim community), 141
Uncertainty, 35–37, 39–44, 46, 47, 53, 56–60, 182, 411
Uncertainty and risk, 45
Underwriters (insurance), 66
United States, 61
Universidad de Mareantes (Association of seafarers of the Indies Trade), 223, 236, 237, 243
Universidad de Mercaderes de Burgos (Burgos Association of Merchants), 176
Universidad de mercaderes y maestres de nao de Bilbao (Association of Merchants and Ship Masters of Bilbao), 177
Usatges de la Ribera (Barcelona), 265
Usury, 39, 45, 53, 72, 82, 340, 343

V
Valencia, 74, 266, 318
Valuation (of merchandise), 403
van Niekerk, Johan, 17
Venice, 12, 46, 55, 70, 269, 328, 332, 364
Veracruz, 224
Verlinden, Charles, 194, 196, 203
Vincenzo Rospigliosi, Commander of the Papal galley (1668), 372
Vizcaya
  college of Pilots in Cadiz (*colegio de pilotos vizcaínos en Cádiz*), 175
  merchants, 176
  region, 178, 179
Voluntary/Involuntary damages, 151, 155, 157, 160, 164, 165, 263, 264, 371
Volusius Maecianus, Roman jurist (ca. 110–75), 97

Vonnisse van Damme (mid-Fourteenth Century), 199

W
Wade, Lewis, 24, 193, 220, 422, 423, 426
Waterrecht, 425
weather-related
  damages, 51
  events, 44
Werpen. *See* Jettison
Western Roman Empire, 260
West Indies, 217, 255
Weytsen, Quintin. *See* Quintin Weytsen (1518–1565)
White Sea, 329
Wilson, Andrew, 34
Wisby (laws of), 152, 200

Y
York-Antwerp Rules (YAR), 5, 12, 25, 260, 295
Yucatan, 224

Z
Zanini, Andrea, 11, 64, 294, 304, 310, 336, 339, 356, 357
Zante, 377