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Editors

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

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# 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

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to these activities.<sup>1</sup> 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.<sup>2</sup>

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.<sup>3</sup> 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

<sup>1</sup> 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.

<sup>2</sup> This is particularly evident in the fourth paragraph.

<sup>3</sup> 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.<sup>4</sup>

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.<sup>5</sup>

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*.<sup>6</sup> 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

<sup>4</sup> R. Zeno, *Storia del diritto marittimo italiano nel Mediterraneo* (Milan 1946), 19.

<sup>5</sup> 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.

<sup>6</sup> 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.<sup>7</sup>

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.<sup>8</sup>

## 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

<sup>7</sup> See the discussion by Davis, *The Rise of the English Shipping Industry*, 77–104.

<sup>8</sup> 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.<sup>9</sup>

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.<sup>10</sup>

<sup>9</sup> 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, *Genus 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).

<sup>10</sup> On the characteristics of these contracts, see C. Targa, *Ponderazioni 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*.<sup>11</sup>

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.

<sup>11</sup> 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<sup>e</sup>s.–XVIII<sup>e</sup>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*.<sup>12</sup> 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.<sup>13</sup> 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.<sup>14</sup>

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.<sup>15</sup> However, this does not imply that with the

<sup>12</sup> 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.

<sup>13</sup> 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.

<sup>14</sup> On the many definitions of such contracts see Baldasseroni, *Dizionario ragionato di giurisprudenza*, vol. 2: 352–356.

<sup>15</sup> 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.<sup>16</sup>

### 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.<sup>17</sup> 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.<sup>18</sup> 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.

<sup>16</sup> 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.

<sup>17</sup> 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.

<sup>18</sup> Targa, *Ponderazioni sopra la contrattazione marittima*, 129–130, 138–139.

the current geopolitical situation.<sup>19</sup> 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.<sup>20</sup>

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.<sup>21</sup>

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

<sup>19</sup> 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. Sec. XIII–XVIII*, 2 vols, (Florence 2006), II: 703–726.

<sup>20</sup> Targa, *Ponderationi sopra la contrattazione marittima*, 136–137.

<sup>21</sup> 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.<sup>22</sup>

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.<sup>23</sup>

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.<sup>24</sup> 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

<sup>22</sup> For example: ASG, *Notai di Genova, I sezione*, 1000 (18 December 1771).

<sup>23</sup> Targa, *Ponderazioni sopra la contrattazione marittima*, 140–141.

<sup>24</sup> Targa, *Ponderazioni sopra la contrattazione marittima*, 148.

managing the Genoese port.<sup>25</sup> 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.<sup>26</sup>

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.<sup>27</sup> 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.<sup>28</sup>

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

<sup>25</sup> 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.

<sup>26</sup> 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.

<sup>27</sup> See, for example, ASG, *Notai di Genova, I sezione*, 1000 (4 January 1771), 1001 (3 June 1771).

<sup>28</sup> 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

<i>Debtor</i>	<i>Purpose</i>	<i>Guarantee</i>	<i>Duration</i>
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.<sup>29</sup>

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

<sup>29</sup> 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.<sup>30</sup>

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.<sup>31</sup>

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*.<sup>32</sup>

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

<sup>30</sup> See, for example, ASG, *Notai di Genova, I sezione*, 1000 (24 April 1771) and 1001 (3 June 1772).

<sup>31</sup> ASG, *Notai di Genova, I sezione*, 1000 (21 August 1770, 12 March and 12 April 1771); also Targa, *Ponderazioni sopra la contrattazione marittima*, 142.

<sup>32</sup> 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.<sup>33</sup> 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.<sup>34</sup>

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.<sup>35</sup> Additional elements that may have

<sup>33</sup> Targa, *Ponderationi sopra la contrattazione marittima*, 148.

<sup>34</sup> Targa, *Ponderationi sopra la contrattazione marittima*, 130.

<sup>35</sup> On this tax, see G. Giaccherò, *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.<sup>36</sup>

### 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.<sup>37</sup> 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

<sup>36</sup> On the Genoese insurance market in this period, see Giacchero, *Storia delle assicurazioni marittime*, 137–164.

<sup>37</sup> 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.<sup>38</sup>

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.<sup>39</sup> 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.<sup>40</sup> 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.<sup>41</sup>

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

<sup>38</sup> A. Baldasseroni, *Delle assicurazioni maritime*, 3 vols, (Florence: Stamperia Bonduciana 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.

<sup>39</sup> Benecke, *A Treatise on the Principle of Indemnity*, 74–75.

<sup>40</sup> 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.

<sup>41</sup> 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.<sup>42</sup>

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.<sup>43</sup>

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.<sup>44</sup>

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

<sup>42</sup> 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.

<sup>43</sup> See the contemporary considerations of Azuni, *Dizionario ragionato*, IV, 41–62.

<sup>44</sup> 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.<sup>45</sup>

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.<sup>46</sup>

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.<sup>47</sup>

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

<sup>45</sup> 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).

<sup>46</sup> ASG, *Notai di Genova, I sezione*, 838 (20 January and 6 February 1790). On barratry and contraband: Targa, *Ponderazioni sopra la contrattazione marittima*, 195–196, 304–308.

<sup>47</sup> ASG, *Notai di Genova, I sezione*, 1000 (31 January 1771).

sector, where we find strikingly similar provisions aimed at limiting the liability of insurers.<sup>48</sup>

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,

<sup>48</sup> 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, *Ponderazioni 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.<sup>49</sup> 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.<sup>50</sup>

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.<sup>51</sup>

<sup>49</sup> 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.

<sup>50</sup> Lo Basso, 'Il finanziamento dell'armamento marittimo', 81–107 and his 'The Maritime Loan', 145–173.

<sup>51</sup> 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.<sup>52</sup>

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.<sup>53</sup> 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 internationale 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.

<sup>52</sup> The data can be found in ASG, *Notai di Genova, I sezione*, 434, 538, 539, 540, 562, 563, 564, 565.

<sup>53</sup> J. F. Boshier, '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.<sup>54</sup> 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 ‘Abd Allāh).<sup>55</sup> 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 through bottomries, under the conditions he deemed most appropriate, in order to develop trade with Mogador.<sup>56</sup>

Therefore, while providing an attractive remuneration for a limited duration, bottomry contracts do not seem to have constituted a usual

<sup>54</sup> For more on him: A. Zanini, *Impresa e finanza a Genova: I Crosa (secoli XVII–XVIII)* (Genoa 2017), 89–100, 133–142.

<sup>55</sup> Zanini, *Impresa e finanza a Genova*, 95–96.

<sup>56</sup> ASG, *Notai di Genova, I sezione*, 1000 (30 August 1770).

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

<i>Investors</i>	<i>No. contracts</i>	<i>Total amount *</i>	<i>Average amount *</i>	<i>%</i>
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.<sup>57</sup>

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

<sup>57</sup> 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)

<i>Type of guarantee</i>	<i>Amount (Genoese lire)</i>	<i>%</i>
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.<sup>58</sup> 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.<sup>59</sup>

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).<sup>60</sup>

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

<sup>58</sup> See, for example, ASG, *Notai di Genova, I sezione*, 1000 (9 January 1771) and 1001 (3 June 1772).

<sup>59</sup> Numerous examples can be found in ASG, *Notai di Genova, I sezione*, 1001.

<sup>60</sup> 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.

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