• Britse krakers in Leiden [Hendriks, Nimanaj & Van der Steen]
• Risk Management in 16th Century Antwerp [Dreijer]
• Napoleon and the Dutch War Subsidy [Hay]
• Mapping Foreign Migration to Belgium [Heynssens]
Maritime Averages and the Complexity of Risk Management in Sixteenth-century Antwerp

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Abstract
This article aims to explain the hitherto unexplored role of General Average and other forms of maritime averages in risk management in sixteenth-century Antwerp. Whereas most scholarly attention has focused on insurance, this article makes the case that maritime averages also were an important tool to manage risk. The article highlights four major developments: first, concrete causes were incorporated under the General Average principle to cover uninsurable expenses and protection costs; second, General Average payments could be recovered via insurance; third, individual merchants sought to assess risk more precisely, developing new varieties of maritime averages themselves; and fourth, the protective foreign merchant guilds developed compulsory contributions based on General Average. The article also adds to related discussions on mercantile conflict resolution and commercial law.

Introduction

In 1575, a Spanish ship sailing from Spain to Antwerp encountered a storm and jettisoned some sacks wool off the coast of Dover, England. The ship, heavily damaged, subsequently had to be repaired. The mas-

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2 Municipal Archives of Antwerp (hereafter SAA), Judgement Books, V1255, fol. 221v-225r.
tter hired pilots to enter the port of Dieppe (Normandy), but due to bad weather and their incompetence, the ship incurred further damages and more wool had to be jettisoned. After repairs were completed, the venture continued to Ostend where the damages were assessed. The costs of the jettisoned goods were to be shared by all participants in the voyage, through a procedure known as General Average, whereby extraordinary costs to save the venture were shared among all those involved. This was a common procedure in early modern Europe, but complications soon arose. Since the wool was insured, those liable to pay for General Average tried to have their insurers pay for the contribution. The insurers of the wool, in protest, started litigation procedures at the Antwerp municipal court. They agreed to pay for the wool jettisoned before the coast of England, but not for the additional losses that were incurred in Normandy, nor for the pilotage costs. The protests were only partially successful because the Antwerp judges decided that costs for the reparations and pilotage would have to be paid by the ship-owner and master as a result of their negligence. The insurers were, however, obligated to reimburse the costs for all the jettisoned wool.

This episode shows that risk management was a complex business in sixteenth-century Antwerp. Merchants faced formidable obstacles such as frequent war and natural hazards. For maritime trade, additional problems also included the threat of hijacking and shipwreck. Merchants were nevertheless able to develop various techniques to deal with maritime risks. Most scholars have focused on the ‘rise’ of marine insurance, while the development and use of other instruments such as General Average has been virtually neglected in the literature on risk management. Both Frank Knight and Douglass North – eminent scholars who have worked extensively on risk management – identified insurance as a major innovation that enabled merchants to distinguish between uncertainty and risk, the latter being a quantifiable and foreseeable form of uncertainty. While this is undoubtedly true, a singular focus on insurance obscures the complexity of risk management.

3 Ibidem, fol. 223r-224v.
4 Ibidem, fol. 225r.
5 All these hazards are analysed in: Revue d'Histoire Maritime (RHM) (2008), monographic issue 9: ‘Risque, sécurité et sécurisation maritimes depuis le Moyen Âge’.
7 Such a view can be found in: P. Mathias, ‘Strategies for reducing risk by entrepreneurs in the early modern period’, in: C. Lesger and L. Noordegraaf (eds.), Entrepreneurs and entrepreneurship in early
eral Average – an extra-contractual and equitable instrument with roots in Roman law – played an important role in risk management alongside other methods such as cargo spreading.\(^8\) Given the attention that many jurists writing on maritime law during the early modern period gave to General Average, it should also be more prominent in the study of risk management by contemporary scholars, acknowledging that the tools existed simultaneously and countered different kinds of risk.\(^9\)

Guido Rossi has recently pointed out that a historical understanding of General Average is also important to understand the development of insurance because the two tools complemented each other.\(^10\) Yet no studies exist that explain the role of General Average and other varieties of maritime averages which were developed during the sixteenth century.\(^11\) This is surprising, as merchants actively used and improved the instrument to account for losses and expenses, such as artillery and convoy costs, that insurance did not cover for legal, practical or historical reasons. Even today insurance cannot cover every risk. As a result, General Average still exists under the so-called York-Antwerp Rules (YAR), first codified in 1890 to protect shipmasters and -owners from damages that insurers cannot or do not wish to cover, even if calls for the abolition of General Average have become louder in recent years.\(^12\) Current-day discussions on the usefulness of General Average, however, obscure the (historical) reality that the in-

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Instrument was widely used during the medieval and early modern period and still is so today. Sixteenth-century discussions were primarily focused on jurisdictional issues. This article studies how General Average, and other types of ‘maritime averages’ in sixteenth-century Antwerp were used in the context of risk management. Starting from this it then makes four contributions to the literature: first, it explains the role of General Average in relation to insurance, challenging the idea of insurance as the most important tool of risk management; second, it shows how merchants improved and combined more traditional risk management tools to face new challenges; third, it adds to current discussions on mercantile conflict resolution, showing the importance of public-order institutions in this context; fourth, it contributes to debates on the development of commercial law and the governance thereof by explaining the complex interplay between various sources of law, challenging linear narratives such as those of the lex mercatoria.

As Sheilagh Ogilvie has noted, institutions (the structures of rules and norms governing economic transactions) often performed multiple functions at the same time and were often organized by certain powerful groups, such as foreign merchant guilds (so-called nationes), influencing distributional effects between and within groups. In Antwerp and its Flemish counterpart Bruges, Southern European nationes kept strict control over the distribution of risk and developed several varieties of maritime averages to cover different kinds of risk. This was no surprise since the Iberian nationes possessed civil jurisdiction over General Average regarding their own members, a privilege which they of course defended. The Iberian ones were also allowed to levy a compulsory contribution (the droit d’avarie) on their members to cover convoy costs, legal fees and other expenses incurred by the nation. Etymologically similar to General Average, it was used to cover

15 See for these questions in Bruges, Antwerp and Amsterdam: O.C. Gelderblom, Cities of commerce – The institutional foundations of international trade in the Low Countries, 1250-1650 (Princeton 2013) 102-143, especially 133-139.
17 On nationes in Bruges and Antwerp see: B. Blondé, O. Gelderblom and P. Stabel, Foreign merchant
the communal expenses of the *natio*.\(^{18}\) This fits Ogilvie’s interpretation of institutions since the *natio* was able to use its bargaining power and privileges to force individual merchants to pay to cover mutual expenses, adapting institutions to serve multiple needs.\(^{19}\) A cynical view might state this that the *nationes* used this instrument for their own interests, even if maritime averages also functioned as an equitable and useful tool to cover mutual expenses such as convoy costs and other protection costs.\(^{20}\) General Average was an equitable non-market tool not prone to speculation, whereas insurance in contrast could induce moral hazard and encourage fraudulent behaviour.\(^{21}\) Since General Average actively influenced the distribution of risk, it can also be viewed through the lens of Ogilvie’s conceptualization of institutions. The insurers’ liability for General Average costs after the jettison of insured goods is further evidence that the instrument was adapted to make sure nobody could opt out of the risk community of maritime ventures.\(^{22}\)

This article follows Knight’s famous distinction as ‘measurable uncertainty’, clearly distinguishing between uncertainty (unknown probabilities) and risk (known probabilities), even if actuarial calculations of risk were still hard to make during the sixteenth century.\(^{23}\) Sixteenth-century Antwerp offers a compelling case to study the development of General Average and other maritime averages. It was the major commercial city in north-western Europe during this period, with Spanish, Italian, Portuguese, German and English merchants active in the city, alongside local merchants rising to prominence during the sec-

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19 Ogilvie, ‘“Whatever is, is right?”’, 681.
21 Knight, *Risk, uncertainty, and profit*, 251.
ond half of the century.\textsuperscript{24} The development of financial markets in Bruges and Antwerp between the fourteenth and sixteenth centuries coincided with the coming-of-age of insurance as a security instrument for maritime trade, creating a sophisticated and speculative insurance market during the sixteenth century.\textsuperscript{25} Insurance has loomed large in debates about risk management in the fifteenth and sixteenth centuries since Violet Barbour and Florence Edler-De Roover placed the development of insurance in a European perspective.\textsuperscript{26} It was introduced to the Low Countries by Italian merchants in Bruges, who invented it during the High Middle Ages, with the first known insurance policy dating from 1343 in Genoa.\textsuperscript{27} Castilian merchants quickly adopted it and later became the main players in the insurance business in Bruges and Antwerp.\textsuperscript{28} Insurance quickly became more popular than older instruments such as the sea loan, because it did not require an investment up-front by the lender-insurer, whereas in the sea loan he assumed the risk by providing his own money to the merchant or master.\textsuperscript{29} Another innovation – the bottomry loan – largely replaced the sea loan because the

\begin{itemize}
\item \textsuperscript{24} J. Puttevils, \textit{Merchants and trading in the sixteenth century. The golden age of Antwerp} (London 2015) 19-48.
\item \textsuperscript{29} Van Niekerk, \textit{The development}, 16-21.
\end{itemize}
shipmaster would pledge the ship as collateral, diminishing the risk for the lender.30

Since quantitative data are largely unavailable, the article primarily relies on qualitative, legal sources, which also informs us on the practical mercantile development of maritime averages: legislation by the Habsburg rulers, collections of customary law of Antwerp and the Castilian natio, as well as the important 1564 legal treatise by Quintin Weytsen; a selection of some twenty-five court cases on General Average from the Antwerp municipal court for the period 1545-158231; freight contracts from three Antwerp notaries that deal extensively with maritime averages for the period 1525-156032; and eight cases from the Castilian consular court in Bruges from the period 1545-1560.33 The article is divided into four further sections. The next section concerns the development of General Average and its role in risk management in Antwerp during the sixteenth century. The article subsequently analyses the relationship between insurance and General Average, before two concluding sections look at the emergence of other maritime averages.

**General Average in the sixteenth-century Southern Low Countries**

The concept of mutual contribution after a deliberate loss was already enshrined in Roman law, legally creating a closed risk community for a venture.34 It also existed in medieval Islamic maritime law, on which the name is based (from ‘awar’, meaning damage in Arabic).35 Simi-

30 Ibidem.
31 See the following cases: SAA, Judgement Books, V1241, fol. 283r-v; V1242, fol. 127r; V1244, fol. 125r-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, 116r-v; V1253, fol. 107r-v, 147v-148v; V1255, fol. 211v-225r; V1256, fol. 58v-59v.
32 SAA, Notariaat Streyt, inv. N#1232 and N#1233; Notariaat ‘s-Hertogen, inv. N#2073-N#2078; Rijksarchief Antwerpen (hereafter RAA), inv. R02, Notariaat De Platea, I, fol. 63r-64r.
33 Municipal Archives of Bruges (hereafter SAB), Old Archive, Spanish Nation, inv. 304, V.A., *Libro de pleitos ordinarios*, fol. 104r, 105r, 107r-v, 108r-v, 115r-v, 145r, 195r-v, 199r-v, 199r-v, 199r-v. The Castilian natio remained in Bruges throughout the sixteenth century as opposed to most other nations. See: J. Maréchal, ‘Le départ de Bruges des marchands étrangers (XVe et XVIe siècle)’, *Handelingen voor het Gemootschap Société d’Émulation te Brugge* 88 (2005) 5-7, 45-54.
lar procedures were later outlined in three influential collections of maritime law in late-medieval Europe (the Rôles d’Oléron, the Consolat del Mar and the Wisby Laws).\textsuperscript{36} However, the principle was only termed ‘General Average’ (\textit{groote avarye}) in the 1551 \textit{Ordonnance} issued by Charles V.\textsuperscript{37} In the subsequent 1563 \textit{Ordonnance} (issued by Philip II), a whole chapter on General Average was included.\textsuperscript{38} In the sixteenth-century Low Countries, several types of maritime averages developed. First, there was of course General Average (\textit{averij-grosse} in Dutch). During the sixteenth century, the procedure and admissible acts were clarified in formal law, primarily in the \textit{Ordonnances} of the Habsburg rulers, while the principle (deliberate loss for the common benefit) did not change. Examples of causes for General Average were the jettisoning of goods, mast cutting and voluntarily running aground, with those participating in the venture reimbursing those who had incurred losses to goods or ship. A second variety, also defined in the 1551 \textit{Ordonnance}, was Small Average (also Common Average, \textit{averij-commune}) a contribution often included in the freight money, made for foreseeable costs such as port duties and pilotage. A third category was Particular Average (\textit{kleine averij} or \textit{averij-simpel}), which was declared when the loss was accidental. The owner of the cargo would bear the loss themselves in such cases unless the master behaved negligently.\textsuperscript{39} This category was only defined in the 1608 \textit{Costuymen} of Antwerp. Johan van Niekerk also noted a fourth category, Contractual Average (\textit{contractuele averij}), whereby merchants used freight contracts to share potential expenses resulting from both Particular Average and Small Average.\textsuperscript{40} In practice, merchants often used these varieties in combination to address different kinds of risks depending on the circumstances.

New forms of maritime averages originating from the Iberian Peninsula, taking the form of a compulsory contribution, were during the late fifteenth century introduced by Castilian merchants in the Low Countries, often based on varieties developed by \textit{Consulados} (merchant organizations) in the Iberian Peninsula.\textsuperscript{41} One was the \textit{droit d’avarie} (also

\begin{itemize}
  \item \textsuperscript{36} G. Landwehr, \textit{Die Haverei in den mittelalterlichen deutschen Seerechtsquellen} (Hamburg 1985) 4-7.
  \item \textsuperscript{37} Kruit, ‘General average’, 198-199.
  \item \textsuperscript{38} The full text of the \textit{Ordonnance} (hereafter named \textit{1563 Ordonnance}) is in: J-M. Pardessus (ed.), \textit{Collection de lois, maritimes antérieures au XVIIIe siècle} (vol. 4) (Paris 1828) 64-102, there Chapter IV.
  \item \textsuperscript{39} For an overview of the liability of the shipmaster see: G. Rossi, ‘The liability of the shipmaster in early modern law. Comparative (and practice-oriented) remarks’, \textit{Historia et Ius} 12 (2017) paper 12, 1-47.
  \item \textsuperscript{40} Van Niekerk, \textit{The development}, 64.
  \item \textsuperscript{41} C.H. Haring, \textit{Trade and navigation between Spain and the Indies in the time of the Hapsburgs} (Cam-
avería de nación), the compulsory contribution paid by all members of the natio to cover expenses of the natio. This was a privilege received by the nationes from foreign rulers, regional rulers and municipalities like Bruges and Antwerp. The second, established by the Castilian natio in Bruges, was known as the flete y averías (‘freight and average’), another compulsory contribution paid before a voyage back to the Iberian Peninsula to cover protection costs, such as convoy ships and artillery. It was calculated as a percentage of the share of goods a merchant had in a venture and paid to the comptroller-general (controlador) of the natio who functioned as the bookkeeper of the natio. He was based in Zeeland, where most Castilian ships arrived from and left for the Iberian Peninsula. The remainder of the revenue after paying the protection costs was given to the shipmaster, who could use the money to cover various Small Average expenses. The flete y averías was similar to the better-known Spanish avería, a tax paid by merchants trading to the New World to cover convoy expenses. These innovations – contributing significantly to the ‘mutualization’ of risk by Spanish merchants during this period – were used to equally share common expenses. At the same time, the compulsory contribution also raised transaction costs, often leading to complaints by individual merchants. The ability to raise these compulsory contributions were important privileges for the nationes and thus strongly enforced by consuls.

The principle of deliberate loss for the common benefit from Roman law remained unchanged, but the number of concrete causes increased during the sixteenth century. Jettison (werpen) during a storm was the most common act after which a contribution by everyone involved in the venture would be required. In the Southern Low Countries, mast or rope cutting (kerven) and voluntarily running aground (strangen) to save a voyage were also accepted as just motives for General Average.

bridge (MA) 1918) 51-83 and 327-328; R.S. Smith, The Spanish guild merchant. A history of the Consulado, 1250-1700 (Durham, NC) 1940) 87-90.
Weytsen, Een tractaet van averien, 2-3.
Illustration 1 Stock exchange Antwerp in 1531 (1582-1588) by Pieter van den Borcht (source: Special Collections University of Antwerp, accession number tg:uapr:25).

These developments were acknowledged both in legal practice and formal law, for example when Philip II issued the 1563 Ordonnance to regulate all aspects of maritime law and systematise legislation on both insurance and General Average. Quintin Weytsen, a lawyer at the Court of Holland, also wrote a famous legal treatise on General Average in 1564. Based on the 1563 Ordonnance, he confirmed that the principle (deliberate loss to save the voyage) was commonly applied in the Low Countries.48 One example of the accepted cases for contribution concerned extraordinary pilotage, something already common in fifteenth-century Amsterdam.49 Normally, costs for pilotage were either incorporated into the freight money of the master or shared by Small Average. However, when a ship encountered a storm and extraordinary pilotage was necessary to reach a safe port and prevent losses, these expenses could be shared by means of General Average. This was recognized in both the 1563 Ordonnance and the 1608 Costuymen of Antwerp.50 The increased number of accepted cases for contribution

48 Ibidem.
49 M.T. Goudsmit, Geschiedenis van het Nederlandsche zeerecht (The Hague 1882) 121-123.
50 The full text of the Costuymen (hereafter named 1608 Costuymen) is in: G. De Longé (ed.), Coutumes
coincided with a more general (sixteenth-century) distinction between damages and expenses, drawn from Iberian practice, meaning that merchants and legal scholars recognized that expenses preventing losses could also justify General Average, rather than only direct losses.51 Although relatively uniform norms on General Average were created in the sixteenth-century Low Countries, differences did nonetheless exist between the various sources of law, for example on the insurability of General Average, which was allowed for in Antwerp municipal law but not (explicitly) in royal legislation.52

Another example concerned piracy. A precedent for using General Average to share expenses incurred by pirate attacks existed in Roman law, where ransom payment to save the venture was already recognized.53 In the 1540s and 1550s, piracy threats primarily came from French and Scottish pirates. The 1550 Ordonnance of Charles V prohibited using insurance when sailing to the Iberian Peninsula on ships from the Low Countries, citing the speculative aspect of insurance.54 Charles followed up with another Ordonnance in 1551 which also regulated aspects of private law, including General Average.55 Castilian and Portuguese merchants – still exempted from the 1550 Ordonnance because this Ordonnance only concerned smaller ships than those they used – lobbied successfully to incorporate uninsurable costs incurred from pirate attacks (e.g. damage to artillery or the funeral of dead sailors) into General Average in the 1551 Ordonnance.56 In sixteenth-century Antwerp, piracy was insurable as a ‘fortune of the sea’ (‘fortuyne vander zee’), but cargo or hull insurance did of course only cover certain costs such as lost goods or damage to the ship itself.57 This meant that non-in-

52 1608 Costuymen, Part IV, Title VIII, Art. 122-123; 1563 Ordonnance, Title IV, Art. 9-10.
55 Ibidem, 253-256.
surable costs were shared via General Average. The costs of the burial of a dead seaman after a pirate attack for example were allowed in General Average. The 1563 Ordonnance of Philip II also dealt with piracy. It copied most of the regulations of the 1551 Ordonnance but added that the remainder of the sailor’s wage and additional compensation for his widow could subsequently be brought into General Average, a rule also found in the 1608 Antwerp Costuymen.58 Weytsen stated that voluntary losses to pirates by negotiations, so to limit greater losses, could be shared via General Average, even if any direct damages by pirates were not a cause for General Average.59 Weytsen further elaborated on this issue, arguing that even negotiations with pirates whereby only part of the cargo was taken could be declared as General Average, because it saved the venture as a whole.60 This meant that General Average became one of the major mechanisms to deal with losses resulting from pirate attacks, covering losses and expenses that insurance could not.

Insurance and General Average

The legal and economic uses of insurance and General Average is as yet a largely unclarified subject of study. In sixteenth-century Antwerp, mercantile practice defined when General Average and insurance were used. Despite the wide availability of insurance, General Average was still widely used in sixteenth-century Antwerp for three reasons. First, insurance was, at least until the 1570s, largely a speculative instrument, for example because policies were concluded after ships had already left Antwerp61; second, while insurance in Antwerp was relatively cheap, General Average was an even cheaper instrument since no up-front payment was necessary and thus useful for some parties such as the shipmaster who had not yet received freight money (a sort of ‘poor man’s insurance’), while also providing the certainty of a closed risk community62; and third, some expenses or losses could simply not be insured, for example artillery whose insurance was prohibited by the 1550 and 1551 Ordonnances.63

58 1563 Ordonnance, Title IV, Art. 2; 1608 Costuymen, Part IV, Title VIII, Art. 77.
59 Weytsen, Een tractaet van avarien, 6.
60 Ibidem.
62 Van Niekerk, The development, 74-76.
63 Sicking, Neptune and the Netherlands, 251-252. In Castile, the 1556 Ordonnance of the Seville Consolado (Art. 32) also prohibited this.
The growing importance of insurance also increased the need to accommodate solutions to events involving both General Average and insurance, primarily when insured goods were jettisoned. Unsurprisingly, those insured often tried to pass on the payment of their General Average contribution to the underwriters, whereas the underwriter would often try to pin the blame on the shipmasters’ negligence in an attempt to declare the General Average action void. To make sure that no one could opt out of the risk community, the liability of insurers to pay for jettisoned goods was introduced. The development towards this liability of insurers was inspired by Iberian practice, where from at least 1538 this was the case.\textsuperscript{64} The 1556 Seville \textit{Ordonnance} also contained this rule.\textsuperscript{65} Even if Antwerp municipal law formally accepted this rule only in 1608, in legal practice it was followed from at least 1545 onwards.\textsuperscript{66} In Bruges, legal practice had already allowed for this practice from 1464 onwards.\textsuperscript{67} Insurers had to pay for both the remainder of the payment after a loss was largely covered by the other participants in the venture, and when the value of a good was used to determine the contribution to another person’s loss.\textsuperscript{68}

For sixteenth-century Antwerp, the ledgers of the important Castilian insurer Juan Henriquez provide the best source on the interplay between insurance and General Average.\textsuperscript{69} In 1975, Henry De Groote estimated that Henriquez used 58.05 per cent of insurance premiums to hedge against potential General Average claims.\textsuperscript{70} Recent research by Jeroen Puttevils and Marc Deloof has however established that this estimate may be too high (Table 1)\textsuperscript{71}; from this table it follows that Henriquez used 14.67 per cent of the value of the premium to pay for General Average claims. Yet the liability of insurers to pay for General Average widely varied (Table 2). Based on the ledgers of Henriquez, which also included other insurers, we can conclude that around 75 per cent of General Average payments amounted to under 5 per cent of the sum insured. This means most payments were likely covered by the premium, or by a small

\textsuperscript{64} Rossi, \textit{Insurance in Elizabethan England}, 151-153.
\textsuperscript{65} See: Pardessus, \textit{Collection de lois} (vol. 6), 76-103, Art. 36 and 44.
\textsuperscript{66} As is evident from a 1545 case. See: SAA, Judgement Books, V1241, fol. 283r-v.
\textsuperscript{68} Van Niekerk, \textit{The development}, 78-80.
\textsuperscript{70} De Groote, \textit{De zeeassurantie}, 153.
\textsuperscript{71} Puttevils and Deloof, ‘Marketing and pricing risk’, 824.
additional payment by the insurer himself. Insurance premiums for the routes for the Iberian Peninsula often hovered between 5-8 per cent for the sixteenth century.\(^ {72}\) This explains why there are relatively few General Average cases in the Antwerp municipal court archives: quite simply, it was not rewarding to go to court because costs were quite low in most cases. Costs could however rise enormously for insurers, as the near-shipwreck of a ship sailing from Bordeaux to Antwerp from May 1563 shows. In this case, insurers had to pay for 90 per cent of the damages via General Average.\(^ {73}\) This scope for skyrocketing costs perhaps also explains why 25 of the 40 General Average cases from the Antwerp municipal court concerned insurers protesting General Average payments.

**Table 1 General Average claims paid by Juan Henriquez (1562-1563)**

<table>
<thead>
<tr>
<th>Henriquez as underwriter of marine insurance</th>
<th>£ Fl. gr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine insurance premiums</td>
<td>763</td>
</tr>
<tr>
<td>Payment of General Average</td>
<td>-112</td>
</tr>
<tr>
<td>Payment of total losses</td>
<td>-302</td>
</tr>
<tr>
<td>Total profit</td>
<td>349</td>
</tr>
</tbody>
</table>

*Source: Puttevils and Deloof, 'Marketing and price risk', 824.*

**Table 2 Number of General Average payments by insurers in the ledgers of Juan Henriquez, by percentage of insured sum (1562-1563)**

<table>
<thead>
<tr>
<th>Per cent of average (%)</th>
<th>Number of GA payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1%</td>
<td>45</td>
</tr>
<tr>
<td>1-5%</td>
<td>79</td>
</tr>
<tr>
<td>5-25%</td>
<td>28</td>
</tr>
<tr>
<td>&gt;25%</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>165</td>
</tr>
</tbody>
</table>

*Source: Wastiels, Juan Henriquez (vols. 2-4).*

One example concerns a 1566 case from the Antwerp municipal court. The underwriter, Jan Bopta Sisat, was summoned before the court to pay for damages that had befallen the ship and goods it carried of the master and ship-owner Nicolas Bourse.\(^ {74}\) The court record does not

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\(^ {72}\) De Groote, *De zeeassurantie*, 135-138.


\(^ {74}\) SAA, Judgement Books, V1250, fol. 139r.
Illustration 2: Andries van Eertvelt (attributed to), Schepen in de storm (1600-1652), (source: Rijksmuseum Amsterdam).

describe how the damages occurred, but Sisat declined to pay for the damages to the goods, claiming that Bourse had violated the terms of the insurance agreement by not taking sufficient precautions to prevent the loss. Pinning the losses on negligent behaviour by the shipmaster was a common argument for insurers to make in court. For that reason, Sisat declined to pay the namptissement. This was a pay-out of the damages by the insurer before going to court. As a safeguard, the party insured then paid a warranty at the court until the case was decided by the aldermen.75 As a result of Sisat’s refusal, Bourse sought payment of the namptissement by court order, forcing the insurer to make up his mind about potential further litigation. The court allowed Bourse to claim the namptissement, also noting that Sisat was liable for a General Average payment because Bourse had followed the rules stipulated in the insurance agreement and had made a deliberate loss to save the venture.76

A case from 1567 sheds light on the problems posed to insurers by piracy.77 A Portuguese ship sailing from Antwerp to Lisbon was hijacked off the coast of France. The pirates took the ship to an unnamed French port before they let master and crew free. The ship, however, was severely damaged by the pirates’ attack and most cargo was taken. Subsequently, the master decided to abandon the ship to the insurers.78 The insurer paid out the agreed sum and took ownership of the ship, with

76 SAA, Judgement Books, V1250, fol. 139r.
77 Idem, V1249 fol. 6v-7v.
the opportunity to try and salvage the ship and/or cargo. This was common practice since Roman law and sixteenth-century *Ius Commune* protected salvage rights. At the same time, the master filed for General Average for the goods lost to the pirates, arguing that he had jettisoned some of them to sail faster and escape the pirates, even if this action had failed. This would have meant that the insurers would have to pay for the lost goods as per the General Average claim, while the master had abandoned the ship to the insurers because of the heavy damages to the ship. The insurers agreed to the abandonment but argued before the court that there was no proof that the jettison had happened to evade the pirates. Nor had the action been successful. The court, however, ordered that the insurers had to pay for the General Average claim, implying that the claim was tenable based on the oral arguments because the venture was saved despite the heavy losses. In short, Antwerp practice stipulated that insurance covered some General Average costs if only to make sure that no one could legally opt out of contributing to mutual losses or expenses. As a result, it became possible to shift the costs for General Average, which were only supported by all stakeholders in a mutual way, to a third party (i.e. the underwriters), notwithstanding the fact that insurers often complained at the municipal court.

**Contractual Average, notaries and the governance of General Average**

Merchants also actively developed new varieties of maritime averages to deal with risk and provide funds for mutual expenses. Barring Van Niekerk, the literature has however not picked up this development. Contractual Average was one way for merchants to conclude (potential) payments for maritime averages, primarily Particular Average and Small Average expenses. Evidence comes from the notarial archives of three Antwerp notaries for the period 1525-1560: Willem Streit, father and son ’s-Hertoghen, and Jacob de Platea. Streit was especially known to have many Iberian merchants as customers, whereas ’s-Her-

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80 SAA, Judgement Books, V1249, fol. 7r.

81 1608 *Costaymen*, Part IV, Title VIII, Art. 77.


83 SAA, Notariaat Streit, inv. N#1232 and N#1233; Notariaat ’s-Hertoghen, inv. N#2070-N#2078; RAA, inv. R02, Notariaat De Platea, I, fol. 63r-64r.
toghen worked with a significant number of both German (Hanseatic and non-Hanseatic) and Castilian merchants. During the sixteenth century, English and Hanseatic merchants started to share Small Average costs such as port duties and foreseeable pilotage within freight contracts. In sixteenth- and seventeenth-century Amsterdam, dividing foreseeable expenses by means of Contractual Average was also common. In Antwerp, these clauses in freight contracts were often concluded with the formula ‘naer den costuymen ende usancie vander zee’ (‘after the customs and usages of the sea’). However vague such a phrase may be, the dissemination of collections of legal compilations such as the Wisby Laws may have provided merchants with a better idea of these rules, even if those rules were not necessarily uniform throughout Europe. Although no calculation was made beforehand, freight contracts show that merchants actively worked to manage and assess risks upfront. In most instances, (foreseeable) maritime averages were shared _ex ante_ in the freight contract. As Jan-Albert Goris has noted, Small Average was also often shared between merchants in freight contracts. Contractual Average was used for both Particular Average and Small Average, or for the two instruments combined. The contracts also often specified the role of the shipmaster, whose negligence could not be a reason for contribution.

In one example from 31 July 1525, the Antwerp-based German merchant Joachim Pruner hired a ship from a ship-owner in Zierikzee (Zealand). The loan agreement stipulated that potential maritime averages were to be shared ‘zoe dat onder den gemeynen coopman gecostumeert’.

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85 The author thanks Cátia Antunes (Leiden University) for providing access to a database of Amsterdam notarial archives, including notarial sources from the Amsterdam Municipal Archives with the following numbers: 1/615 V; 68/59; 32/II/76; 50/39 v; 81/108; 82/170.
86 This was a common way to share maritime averages, even if it was not necessarily clear what it meant since mercantile custom is a thorny issue in legal history. See for this problem: E. Kadens, ‘Order within law, variety within custom. The character of the medieval law merchant’, _Chicago Journal of International Law_ 139 (2004) 39-65. See for records: SAA, Notariaat ‘s-Hertoghen, N#2072 (1545), fol. 70v-73r; Idem, N#2073 (1547), fol. 13r-14r; RAA, Notariaat De Platea, I, fol. 63r-64r. All these records can also be found in: Strieder, _Ausz Antwerpener Notariatsarchiven_, nrs. 16, 273-276 and 357.
88 Goris, _Étude_, 173.
89 Rossi, ‘The liability of the shipmaster’, 29-33.
90 RAA, Notariaat De Platea, I, fol. 63r-64r.
words’ (as is customary for all merchants). Another contract from 14 June 1535 also shows that maritime averages were shared among various Spanish merchants before a voyage.91 Since the costs of (foreseeable) pilotage could be high, it was often decided that these costs would be split among the partners in the venture and be treated as Contractual Average, enabling merchants to assess the costs and risks upfront. The payment of Small Average was hence commonly incorporated in freight contracts. A 1545 contract concluded before Hertoghen sr. stipulated that ‘gerechten oncosten van der avaryen nach usancio ende costume van der zee’ (‘lawful expenses of average after usage and customs of the sea’) should be paid.92 A similar 1547 freight contract offered a similar formula.93 The records of Streit also contained several examples of clauses on maritime averages.94 In other freight contracts in Streit’s ledgers, uninsurable costs such as artillery were included in a freight contract by Contractual Average to prevent conflict afterward.95

Besides concluding Contractual Average, Antwerp notaries often heard attestations when General Average was claimed, registered the calculus when damages occurred and sometimes acted as average adjusters (dispacheurs) themselves.96 Early in 1535, Streit for example drew up a General Average calculus in Castilian.97 In another case from 26 April 1535, Streit acted as both the average adjuster and the executor of an insurance policy.98 The ship had been arrested, which incurred additional costs – for example additional crew wages – and these were brought into General Average; in this case ’s-Hertoghen functioned as a witness.99 In another case from 13 October 1535, Streit was appointed to draw up the General Average calculus after a Spanish ship had incurred damages off the coast of the Scilly Islands.100 The ship had broken into two parts but was repaired in port. The master of the ship claimed the costs to repair the ship via General Average. Based on the freight contract, which had stipulated that the maritime averages should be

91 SAA, Notariaat Streit, N#1232 (1535), fol. 57v-58r.
92 Idem, Notariaat ’s-Hertoghen, N#2072 (1545), fol. 73r-73r.
93 Idem, N#2073 (1547), fol. 13r-14r.
94 See, for example: Idem, Notariaat Streit, N#1232, folks. 56r-57v, 57v-58r, 70r, 71r-72r; N#1233, fol. 165r-166r.
95 Ibidem, fol. 56r-57v and 71v-72r; Idem, N#1233 (1540), fol. 96v-97v.
96 De Groote, De zeeassurantie, 22-23.
97 SAA, Notariaat Streit, N#1232 (1535), fol. 8v-9v; Goris, Étude, 174-175.
98 Ibidem, fol. 39v-40r.
99 Ibidem, fol. 40r.
100 Ibidem, fol. 95r-v.
shared according to the ‘usage and customs of the sea’, Streit drew up the calculus. Antwerp did not actively exercise jurisdiction over General Average cases before the 1560s, meaning merchants often enlisted trusted merchants or notaries as arbiters to solve conflicts. Conflict resolution on General Average cases in Antwerp was hence largely a private-order matter until the 1560s, although explicitly blessed by the municipal government. From the 1560s onwards, the Antwerp aldermen tried to gain greater leverage over General Average procedures and therefore started to licence specialized average adjusters and reign in the jurisdiction of most of the nations (except the Portuguese), even if the court never became involved with the actual General Average calculations. In 1568, Castilian merchants in Antwerp, for example, tried to appoint the notary Jehan de Berlaymont as the average adjuster after a joint Portuguese-Castilian ship had incurred damages, which was blocked after the Portuguese consuls objected and were granted the right to draw up the General Average claim. While conflict resolution of General Average disputes was largely a mixture of ‘private-order’ and ‘public-order’ solutions until the 1550s, Antwerp decidedly moved towards a public-order, open-access legal system during the second half of the sixteenth century.

The flete y averías and the mutualization of risk

The necessity to assess risk more precisely and cover mutual expenses led the Castilian consuls to develop the flete y averías gruesas y commune. The flete y averías was a compulsory contribution paid by the merchants who were participating in the venture to the comptroller-general of the natio. The comptroller-general also negotiated with skippers’ guilds from Zealand who piloted small ships from Zealand

101 Ibidem, fol 95v.
102 De Grote, De zeeassurantie, 143-144.
104 De Grote, De zeeassurantie, 144-146; De Ruyscher, ‘Naer het Romeinsch Recht’, 117-121.
105 Ibidem; See also: SAA, inv. PK#640, fol. 148v-149v.
106 A similar argument can be found in: Puttevils, Merchants and trading, 139-144.
107 Rivera Medina, ‘The mutualisation of risk’. 
to Antwerp or Bruges during the fifteenth and sixteenth centuries.\textsuperscript{108} The parties made arrangements about the wages for the pilots’ services and the expense of maritime averages, leading to predictable expenses for the Castilian merchants.\textsuperscript{109} The \textit{flete y averías} was calculated on the profits made on the sale of wool, although almost no quantitative data have survived.\textsuperscript{110} According to Raymond Fagel, who studied the \textit{flete y averías} for the Burgos-Bruges trade during the early sixteenth century, it hovered around 4-5 per cent of the profit on the venture (see table 3).\textsuperscript{111} What is clear is that the expenses for the \textit{flete y averías} on average rose during the sixteenth century, from 50.5 to 76.5 \textit{dineros}, a development largely due to better quality of the wool and higher prices.\textsuperscript{112}

The \textit{flete y averías} increased transaction costs \textit{prima facie}, although the instrument was used to cover mutual expenses such as convoys protecting the privately-owned ships sailing to the Iberian Peninsula.\textsuperscript{113} The \textit{flete y averías} both covered mutual protection costs,

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage \textit{flete y averías} of total profit (\textit{dineros})</th>
</tr>
</thead>
<tbody>
<tr>
<td>1511</td>
<td>4,79%</td>
</tr>
<tr>
<td>1512</td>
<td>5,2%</td>
</tr>
<tr>
<td>1513</td>
<td>5,31%</td>
</tr>
<tr>
<td>1514</td>
<td>4,59%</td>
</tr>
</tbody>
</table>

Source: Fagel, \textit{De Hispano-Vlaamse wereld}, 484.

but also included foreseeable Small Average costs, such as pilotage between Zealand and Bruges and port duties. Hence, the \textit{flete y averías} was a combination of the \textit{droit d'avarie} (a ‘mutualistic’ compulsory contribution levied by the Castilian \textit{natio}) and Contractual Average (for it shared expenses of Particular Average and Small Average before a voyage). Since the powerful Iberian \textit{nationes} strictly enforced the payment of the \textit{flete y averías}, members of the \textit{natio} had no choice but to pay the compulsory contribution. Merchants were of course also free to take out insurance for their own goods. Even though transaction costs for


\textsuperscript{110} Fagel, \textit{De Hispano-Vlaamse wereld}, 50-52.

\textsuperscript{111} Ibidem, 484.

\textsuperscript{112} Ibidem, 45, note 167. One pound Great Flemish was 240 \textit{dineros}. See: Ibidem, 481.

\textsuperscript{113} Van Niekerk, \textit{The development}, 64-65.
individual merchants could be high, in the trade-off between higher transaction costs and lower risk merchants often preferred the latter.

Castilian merchants nevertheless sometimes complained at the consular court in Bruges that the cost for the flete y averías was too high. Most cases in the consular court concerned the enforcement of payment by the consuls, which shows that payment was sometimes resisted by merchants. A 1549 case for example witnessed a group of merchants appear in court because they had not paid for the flete y averías. The ship, sailing from Burgos to Bruges, had stopped in a French port to pick up wine. That meant that an extra payment was expected from the merchants. Because the extra cargo was taken without the explicit approval of those merchants, they declined to pay. Subsequently, the master of the ship sued them before the consular court because he had also incurred extra expenses for port duties in France. The consuls decided that the merchants had to pay these expenses, referring to the Ordonnance of the Burgos Consulate of 1538 which stated that the master always had to be reimbursed for lawful expenses.

Merchants were faced with high protection costs covered by the flete y averías. Among those protection costs, it included the expense of hiring artillery, something that could not be insured because of a prohibition in the 1551 Ordonnance. However, merchants also ran the risk of paying for damages to the artillery by means of General Average afterward. In 1553, the Seville merchant Juan de Aguero initiated a suit at the consular court, arguing that only foreseeable expenses (e.g. pilotage) should be covered through the flete y averías, also pointing to the clear distinction between damages and costs. This left De Aguero vulnerable to pay for General Average as well when the artillery would be damaged during the venture. In his defence, De Aguero complained that this hampered his ability to trade since transaction costs could become too high to make a profit at all. The consuls, however, sentenced him to pay for additional mutual protection costs, such as artillery, pointing to the rules contained in the 1551 Ordonnance. A number of other lawsuits followed between 1553 and 1556 by merchants unwilling to risk a double payment resulting from the application of the 1551 Ordonnance. The

114 SAB, Libro de pleytos ordinarios, fol. 107r-v.
115 Ibidem, fol. 107v.
116 Ibidem, fol. 115r-v.
117 Ibidem.
118 See for example: Ibidem, fol. 108r-v, 119r-v, 122r-124r, 145v, 151v-152r, 199v-200r, 211r-v and 214v-215r.
Castilian consuls however clearly jealously safeguarded the privilege of the *flete y averías* as it was used to cover for common expenses, mutual protection costs and foreseeable expenses, combining characteristics of the *droit d’avarie* and Contractual Average. Even if this raised transaction costs for individual members of the *natio*, the consuls pressed on with levying the compulsory contribution, referring to their negotiated privileges which they argued benefitted the whole *natio* and made it impossible to opt out of the arrangement.

**Conclusion**

This article has argued that insurance was only one of the several tools of risk management in sixteenth-century Antwerp, and that General Average played an important role. In line with the observation by Edwin Hunt and Jamie Murray that revolutionary processes in business were often built on old structures, this article has shown how maritime averages developed throughout the sixteenth century to face multiple risks, which included sharing losses, preventing greater losses and common expenses. The ‘rise’ of insurance spurred legal and practical developments which clarified what risks could be shifted to a third party through insurance and what would continue to be paid by interested parties by means of mutual expenses through General Average or other forms of maritime averages. These developments added to the shift from uncertainty into risk on the basis of mercantile practice and necessity. No specific law governed General Average procedure throughout the Low Countries, although general trends can be detected, such as the inclusion of expenses to prevent greater losses in General Average. By the second half of the century, Antwerp’s aldermen asserted control over General Average procedures and conflict resolution, whereas before merchants had used a mixture of notaries and private average adjusters to solve conflict, with Antwerp aldermen overseeing this system. Structures based on solidarity survived and even thrived, accounting for risks for which insurance could not provide legally or practically, without the speculative risks associated with insurance itself. The *nationes* were especially instrumental in influencing the distribution of risk and shaping institutions to protect their own interests, echoing Ogilvie’s analysis of institutions as redistributive mechanisms. Irrespec-

tive of any consideration of ‘efficiency’, merchants in Antwerp responded to the increasingly complex realities of commerce and the distribution of risk during the sixteenth century by refashioning the ancient principle of General Average as an important tool of risk management.

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• Risk Management in 16th Century Antwerp [Dreijer]
• Napoleon and the Dutch War Subsidy [Hay]
• Mapping Foreign Migration to Belgium [Heynssens]