Chapter 1

# Introduction

### 1.1 Unravelling general average's uniformity myth<sup>1</sup>

General average<sup>2</sup> is surrounded by perceptions. The most advocated probably is that it is a uniformly regulated concept.<sup>3</sup> Thanks to the universally applied standard conditions on general average, the York-Antwerp Rules ('YAR'), the main issues would have allegedly been solved in a satisfactory manner. This study considers that this perception of a uniform general average regulation is flawed, if only because the YAR's scope is limited, whereas the national and contractual regulations vary. In the absence of a uniform regulation, the legal basis of the general average concept and of a claim for a general average contribution are highly relevant. The recent introduction of a new version of the YAR<sup>4</sup> seems an auspicious time to consider the YAR's legal position, as well as the wider framework of general average, including its applicable law.

## 1.2 The maritime particularism general average

Extraordinary situations call for extraordinary remedies. A maritime voyage is an adventure, or at least it certainly was until quite recent times. When a ship laden with cargo left the port of loading, she was in many ways outlawed. There was little to no shore contact at all, and whether she was able to deliver her cargo often only became clear when she made it back safely. Probably as a result, particularisms developed in maritime law. The most peculiar probably is the concept of general average.<sup>5</sup> During a voyage overseas the need could arise to take extraordinary emergency measures to save the vessel as well as the property and people carried on board. For at least 2,000 years, but probably much longer, maritime practitioners have accepted that it would be unfair to let the financial consequences of such intentional responses for protection from peril of all lie where they fall. The concept

In popular usage, a myth is a collectively held belief that has no basis in fact or is unproven.
The origin of the word general average and the development of the concept as well as its current practical application are considered in more detail in Chapter 2 below.

<sup>3.</sup> Inter alia Tetley 1994, pp. 107, 128; Selmer 1958, p. 58; Lopuski 2008, p. 331; Hudson & Harvey 2010, p. 9; Taylor 1994, p. 2: 'The York/Antwerp Rules represent perhaps the best example of successful worldwide voluntary unification of Maritime Law.' Another commonly held perception is that general average is boring. That lawyers tend to stay away from general average was already recognised by the Swedish average adjuster Pineus in 1973 (Pineus 1973, p. 619). That general average does not score high on the list of interesting topics was also mentioned by the average adjuster Pannell, who wrote in 1998: 'For I am mindful of the fact that, whilst general average has a constant fascination for the practising, or even the non-practising average adjuster, nonetheless it can prove a dreary and sleep-inducing subject for those whose contact with it is of no more than a

*passing interest.*' (Pannell 1998, p. 3). Also IUMI Report 1994.The YAR 2016 were adopted during the CMI Conference in New York on 6 May 2016.

Other examples of particularisms of maritime law are the concepts of global limitation of liability and maritime liens. See also: Lopuski 2008, p. 14.

of general average provides for a distribution of these losses and costs amongst the parties interested in the properties involved in the maritime adventure. As such it can be regarded as a maritime burden-sharing mechanism.

The apportionment system currently known as general average has developed over the years, both in the various historic regulations and national law regimes, but mainly in practice.<sup>6</sup> During its existence, the principle that losses should be divided was applied differently in various geographic areas and in various time periods. Today's maritime business is completely different from 50 to 60 years ago when containerisation truly started,<sup>7</sup> not to mention the period before that time. Vessels were much smaller and less well equipped. Moreover, there were no lengthy chains of maritime contracts and/or negotiable documents which were traded various times during a voyage. In addition, the properties involved in the maritime adventure until a few centuries ago were generally represented on board, as merchants accompanied their cargoes.<sup>8</sup> The parties were perfectly aware of the circumstances under which losses were suffered or costs incurred. They had faced the danger with their own eyes and had often been consulted on the measures taken.<sup>9</sup> Settlement of the distribution took place between the various parties at the end of the common maritime adventure when the parties physically separated. Contracts of carriage did not contain (m)any provisions on general average.<sup>10</sup> In consequence, the application of the principle that in certain circumstances a contribution had to be made by parties interested in a maritime adventure to cover sacrifices and costs incurred intentionally for the common benefit of the parties involved was much easier than today.<sup>11</sup> Notwithstanding the developments that have taken place in the shipping business, maritime law and marine insurance, the general average concept has survived and is regularly applied today.

Even though the specifics of the general average concept have evolved over time and still vary per jurisdiction and applicable rules, its use often goes unchallenged. This does not mean, however, that it is universally supported. In the last centuries it has been submitted by different parties at various moments in time that the general average system would have or should soon become extinct. It would be an 'anachronism' that would have outlived its longevity substantially and that should be abolished.<sup>12</sup> In the CMI Questionnaire which was sent out in preparation of the

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<sup>6.</sup> Cleveringa 1961, p. 900; Kruit 2015.

<sup>7.</sup> See on the development of containerisation also Van Ham & Rijsenbrij 2012.

<sup>8.</sup> Lowndes 1844, p. 5.

<sup>9.</sup> Many regulations obliged the master to consult the merchants and/or crew before actions were taken that would give rise to a contribution. See also para. 2.2.1, f.nt. 78 below.

<sup>10.</sup> Although contractual provisions can already be found in contracts of affreightment in the Middle Ages (Rochester 2008, p. 12 with reference to Fayle, E. A Short History of the World's Shipping Industry (1933) Dial Press, New York), contractual general average provisions were not yet widely applied at the beginning of the 19th century. Pursuant to average adjuster Lowndes, in 1844, bills of lading did not yet contain provisions on general average (Lowndes 1844, p. 5). Even approximately 50-60 years ago, there were only few provisions on general average in contracts of affreightment, most notably references were included to a version of the YAR (Selmer 1958, p. 59). In comparison, today, many contracts of affreightment contain specific provisions which impact on the settlement of general average. This will be further discussed below.

<sup>11.</sup> Also Buglass 1981, p. 2.

<sup>12.</sup> The discussion whether general average should be abolished, as well as arguments for and against abolition have been set out inter alia by Molengraaff 1880, pp. 97-107; Rudolf 1926, p. 32-37; Selmer 1958, p. 136-295; Tetley 2003, p. 444; Cornah 2004, p. 155; Cleveringa 1961, p. 900, f.nt. 3; UNCTAD 1991; Pannell 1998, p. 6-11; Smeele 2004, p. 20; Lowndes & Rudolf 2013, p. 16-18; Schadee 1949,

YAR 2016,<sup>13</sup> the first question was whether general average should be abolished. Out of the 26 replies, none of the national law associations and other interested parties supported abolition.<sup>14</sup> It therefore seems to follow that there still is a general or at least enough support for the general average concept's application. But which concept are we talking about exactly?

In practice, when it has been ascertained that there may be a general average situation, more or less standard actions are taken in accordance with a more or less fixed protocol. An adjuster is appointed, a lien on cargo is exercised by ship interested parties, security is collected from the parties interested in the property involved in the maritime adventure and an adjustment is prepared. All these actions are taken in order to be able to collect general average contributions in due course and to arrange a compensation for losses suffered and/or expenses incurred by the parties who have benefitted from these losses and sacrifices. In order to be able to actually take these actions and to obtain a compensation, there has to be a legal justification. Given its respectable history and continuous application in practice, one would expect that the general average concept is firmly rooted in the legal order, both at national and international level. A closer examination of the subject, however, reveals that the opposite is the case.

Even though there is a common understanding of what the general average distribution principle entails, the national laws and contractual regulations contain varying definitions of the concept and set varying requirements. In this respect a comparison can be made with the concept of tort (in Dutch: 'onrechtmatige daad'; in German: 'unerlaubte Handlung').<sup>15</sup> The basic idea of the concept is the same everywhere, i.e. if one unlawfully infringes rights of others, damage thereby caused has to be compensated. All systems require wrongfulness, damage and a causal connection.<sup>16</sup> However, the specific requirements set by the national laws are not identical. German law, for example, does not contain an open norm, whereas Dutch law does.<sup>17</sup> Hence the mere qualification of a claim as 'tort' is insufficient. In order to duly apply the concept and to bring a claim successfully, the applicable law to and the specific requirements of this national 'tort' equivalent have to be determined.<sup>18</sup> The same is true for general average. The basic idea of apportionment of

- 14. CMI Report Dublin 2013, pp. 3-6.
- 15. § 823-853 German Civil Code.
- 16. Asser/Hartkamp & Sieburgh 6-IV 2015, p. 15.
- 17. § 823-853 German Civil Code cf. s. 6:162 Dutch Civil Code.

p. 12. See also Pannell 1998 (pp. 3-5), Billah 2014 and Gooding 2004 for overviews of various parties who claimed that general average should be abolished. See also Harrison (1915, p. 2), who deemed the completion of the Panama Canal 'an auspicious moment to propose the abolishment of general average.' Recently the view that general average should be abolished was defended by inter alia Mukherjee 2005, Gooding 2004, Tetley 2003. Their point of view has been followed by the European Shippers Council, the organisation of European shippers, in their reply to the CMI questionnaire in July 2013, www.europeanshippers.eu/news/esc/esc-calls-for-an-open-debate-on-the-abolition-of-the-general-average.

Since 1950, the CMI (Comité Maritime International) is the YAR's 'custodian' (Hetherington 2014, pp. 163, 175). See also para. 2.2.2 below.

<sup>18.</sup> Such distinction between the concept as such and a specific application in a national legal regime is also made in Rome II regarding the non-contractual concepts of negotiorum gestio, unjust enrichment and culpa in contrahendo. See, for example, Recital 30: 'Culpa in contrahendo for the purposes of this Regulation is an autonomous concept and should not necessarily be interpreted within the meaning of national law.' The conceptual indications are used to serve as an umbrella and need a further specification by the applicable national regime.

loss is generally accepted, but the specifics vary per regulation. For example, whereas the master's approval for measures is required in order to qualify measures as general average under inter alia German, Italian and French law, this requirement is not included in inter alia the Dutch, English and Norwegian general average rules.<sup>19</sup> Distinctions can also be observed regarding the issues which parties are to be regarded as the parties interested in the property involved in the maritime adventure, time bars, measures to safeguard a contribution, the relevance of the influence of fault, etc. In addition, contractual general average provisions may play a role. It will also have to be considered on the basis of the applicable law whether contractual arrangements are allowed, and if so, to what extent. This begs the question of general average's legal basis and its applicable law. In general average matters, however, this step is often ignored. In practice, the question of a claim for a general average contribution's legal basis is hardly ever asked. The adjustment and/or a contract of affreightment/carriage is generally taken as starting position without further explanation. Admittedly, this may work in practice, but from a legal point of view this usage cannot be justified, or at least not in all situations.

In current maritime practice, a reference to the YAR can be found in almost every contract of affreightment worldwide. The YAR's application has become so well established in practice that it often goes without any discussion. In fact, the applicability of the YAR has become so commonly accepted that the YAR are sometimes regarded as a synonym for general average or at least as a set of rules which gives a comprehensive general average regime. The YAR, however, in essence merely deal with the adjustment. In most cases they apply by contractual reference only. Although their scope has been widened in the last 20 years in various updated versions, they still leave many aspects unregulated. The YAR as a result have to be applied pursuant to and in conjunction with other provisions. But which other provisions? Contractual stipulations and/or statutory provisions? And how are the relevant terms to be established?

In the last 50 years, many international conflict of law rules have been developed. Conventions now include rules on jurisdiction<sup>20</sup> and, in the European sphere, international conflict of law rules have been created to obtain more legal certainty and uniformity. At European level, the Rome I and Rome II Regulations set out rules to determine the applicable law to contractual and non-contractual obligations arising out of various legal concepts. The concept of general average is not regulated separately in these regulations. Another question is whether, and if so how, general average can be fitted into these private international law rules.<sup>21</sup>

### 1.3 Order and scope of the study

The aim of this study is to scrutinise the various legal bases of a claim for a general average contribution and to examine the applicable law to obligations arising out of the general average concept. To this effect, to begin with and by way of back-

<sup>19.</sup> See in more detail para. 4.2 below.

<sup>20.</sup> For example, Art. 31 CMR, Art. 7 Arrest Convention 1952, Art. 21 Hamburg Rules and Art. 66 Rotterdam Rules.

<sup>21.</sup> This is discussed in Chapter 5 and 6 below.

ground, the development of the currently applied general average apportionment principle as well as its contemporary application in practice are outlined in Chapter 2. In Chapter 3, the place of general average in the legal order is considered. More specifically, it is discussed on which grounds a claim for a contribution can be based and what the YAR's position is in this respect. The central question is how should the YAR be regarded from a legal perspective? In Chapter 4, the application of several aspects to effectuate a claim for a general average contribution as set out in the various sources on which a claim can be based is considered. Questions that are discussed inter alia concern the position of the average adjuster (how is he appointed and what is his position?); which parties may be involved in a general average; what is the influence of (actionable) fault of one of the parties to the maritime adventure, if any; and which measures can be taken to safeguard payment of a general average contribution. The intermediate conclusion set out in para. 4.9 is that the contents of the various general average sources, and in particular several aspects to effectuate a claim differ and that their interaction is not well regulated. It is also argued that as a result of these substantive and procedural differences, there is a need to establish the applicable law to (obligations arising out of) general average. After it has been shown in Chapter 5 that there is no internationally uniform conflict of law rule on general average, it is discussed in Chapter 6 how the applicable law to general average is to be determined pursuant to the European Union's conflict of law provisions. When it has been set out that the Rome I and Rome II Regulations in principle apply to general average obligations, it is considered how they are to be applied and whether they regulate general average in a satisfactory manner. It is argued that the Rome I and Rome II Regulations do not give a suitable regime. It is also submitted that the 'general average problem' should not be solved with specific private international law rules for general average, but rather by means of creating more substantive uniformity.

An analysis is made of the general average concept through a desk-based study of legislation, literature and case law pre-dating 10 May 2016. In view of the general average apportionment principle's long history and its in essence unchanged application, older literature and case law remain relevant in addition to more recent sources. Empirical work has not been performed, although the author's experience with the legal and practical aspects of general average cases has contributed to the study. The purpose of this study is not to provide a complete overview of the legal concept of general average and/or the YAR. Extensive discussions of inter alia the various general average disbursements, the relationship between an insured and its underwriter, as well as jurisdiction issues cannot be found below.<sup>22</sup> The study does not include an overview of the general average regulations in the various countries either. The main focus is on the Dutch, English and German rules on general average as well as their application and interpretation.<sup>23</sup> The national le-

<sup>22.</sup> This is beyond the scope of this study.

<sup>23.</sup> English law is the law that governs many, if not most contracts for the carriage of goods by sea. A substantial number of adjustments are also prepared by adjusters based in London under English law. Dutch law is interesting because the codified rules which are applicable since 1991 were written by the Dutch average adjuster Schadee and incorporate the YAR. The German general average rules, which were amended recently (in 2013) by introduction of the new German Civil Code, do not include a reference to the YAR. It will be observed that there are some quite important differences between the general average rules of these three legal systems.

gislations of various other States, including but not limited to the maritime codes of Norway, France, Spain, Argentina, the People's Republic of China and Russia, are referred to randomly and serve as examples for the various manners in which the relevant aspects to effectuate a general average contribution can be regulated. The comparison of the provisions set out in the national legal regimes clearly shows that a uniform regulation is all but present. The conflict of law rules have been considered mainly from a European perspective.

1.3

## Chapter 2

# A modern concept with ancient roots; general average's historical development and current practice

### 2.1 **Distribution of losses and costs**

The concept of general average has a somewhat mysterious connotation. This concerns both the term 'general average'<sup>1</sup> (in Dutch: 'averij-grosse';<sup>2</sup> in German: 'Große Haverei' or 'Havarie-grosse';<sup>3</sup> in French: 'avarie commune')<sup>4</sup> and its practical application.<sup>5</sup> In essence, however, the principle of general average is rather straightforward. Briefly summarized, general average is a particular manner to distribute specific losses and costs.<sup>6</sup> When measures are taken during an overseas or inland waterway voyage, or in general average terms 'a maritime adventure', to save the vessel and everything on board from a peril that threatens the vessel, its load and the adventure in general, the concept of general average provides that the costs of these measures are to be born by parties interested in the property saved as a result thereof.<sup>7</sup> This concerns both costs and losses intentionally incurred

<sup>1.</sup> The origin of the term 'general average' is obscure. Different theories have been advanced regarding the origin of the word 'average' ('(h)avarij(e)', '(h)avarie'). The 16<sup>th</sup> century Dutch Supreme Court Judge Weytsen argued that the word 'avarije' stems from the Greek word for load/cargo (Weytsen para. 1, Verwer 1711, p. 191). Others are of the opinion that the word 'havarije' would have been derived from the French word 'havre', port, where the average was to be paid. The word 'havre' would have a Persian origin in the word 'aban', an occupied and build-area (Boxhornius, published in Verwer 1711, p. 189). Furthermore, the word is said to have an Arabic ancestor, i.e. the word 'áwâr', damage (Ulrich 1903, p. 1; Prüssmann/Rabe 2000, p. 884; Puttfarken 1999, p. 319). It has also been argued that average is derived from 'aversio', as denoting a means of escape from danger, from 'avere', the having of property (Lowndes 1922, pp. 11-12). See also Hopkins and Molengraaff for overviews of different theories regarding the word's origin (Hopkins 1859, pp. 1-3 respectively Molengraaff 1880, pp. 14-16). Average has also been said to have its origin in 'averare', i.e. to carry (Smith Homans 1859, pp. 79-80, where reference is made to Cowell's Interpreter of 1607). As the 18<sup>th</sup> century French author Emérigon indicated, the true etymology may never be discovered (Emérigon 1783, p. 601; in the same sense Holtius 1861, p. 263). It has been suggested that the words 'general' and/or 'gross' relate(s) to the fact that the contribution falls upon the gross amount of ship, cargo and freight (Kent 1828, p. 185). Alternatively, it has been argued that the word general or gross is/was used merely to distinguish general average from 'particular' or 'common average'. Whereas general average was borne in principle by all or certain parties to the maritime adventure, particular average fell exclusively upon one of the parties; either the master and shipowners or upon the merchants whose goods had become damaged. (Dowdall 1895, pp. 33-34). Abbott deems general average 'a very incorrect expression.' (Abbott 1802, p. 273). The linguistic origin of the term general average is also discussed in some detail by Thoo (2003, pp. 7-8).

<sup>2.</sup> The Dutch Civil Code still applies the word 'avarij-grosse'. The correct spelling appears to have changed to 'averij-grosse', since the Code's introduction in 1991. The spelling 'averij-grosse' is also used by Dutch Courts in recent case law.

<sup>3. § 588</sup> German Commercial Code.

<sup>4.</sup> S. L5133(3) French Code of transport.

<sup>5.</sup> The draftsman of the Dutch Civil Code on Transport, Schadee, used to describe general average as 'Geheimwissenschaft', in English 'secret science'.

<sup>6.</sup> General average has been described as 'a peculiar kind of communism to which seafaring men are brought in extremities'. (Lowndes 1888/1922, p. 1.)

<sup>7.</sup> Schadee 1952, p. 197.

respectively suffered.<sup>8</sup> This cost sharing mechanism creates the possibility that at the time of the danger, the solution is chosen which is most beneficial for all parties, regardless of the answer to the question who will ultimately have to bear the costs thereof.<sup>9</sup> As such it prevents conflicts of interest as it provides for time and cost efficient solutions.<sup>10</sup> General average can be said to have been the solution for the 'prisoners' dilemma' of the maritime parties long before anyone had ever heard of the dilemma or it had academically been proven.<sup>11</sup> In theory it provides the financial incentive to make the parties of the common maritime adventure cooperate in order to keep the overall damage to a minimum and to complete the maritime voyage.<sup>12</sup> It is therefore also regarded as risk spreading or burden sharing mechanism.<sup>13</sup> One could even say that it is a kind of mutual insurance for the parties interested in the maritime adventure, which already existed before the insurance concept as we know it today was introduced.<sup>14</sup> In spite of the development of marine insurance products, general average has remained.<sup>15</sup> The concept cannot be brought under the insurance heading either.<sup>16</sup> Where insurance provides for an external risk bearer, general average keeps the division within the inner circle of the parties to the maritime adventure.<sup>17</sup> It is also to be distinguished from salvage. Where salvage in principle requires an external salvor who gets a substantial remuneration if successful,<sup>18</sup> general average measures are taken by or on behalf of one of the party's involved in the adventure and only allow for a partial compensation of costs incurred.<sup>19</sup> The party who took the measures does not receive any remuneration for his efforts, at least not within the general average framework.

9. General average was also regarded as a threshold for the master to opt for cargo sacrifice too quickly. The fact that the shipowners would have to contribute to a cargo sacrifice would make him think twice before throwing cargo over board (Selmer 1958, p. 209. Also Sulewska 2014, p. 6).

<sup>8.</sup> The distinction was made in the American case The Star of Hope, 76 U.S. 203 (1869 WL 11539).

<sup>10.</sup> Smeele 2005, p. 20; IUMI Response 2013, pp. 3-4.

<sup>11.</sup> The prisoner's dilemma is the theory that two individuals would both be better off if they would cooperate, but that the individuals nevertheless rationally chose not to cooperate. The theory is proven with the example of two prisoners who have the option to betray each other. See inter alia Axelrod 1984, *The Evolution of Cooperation*.

<sup>12.</sup> IUMI Response 2013; Hare 1999, p. 769. Different: Billah who argues that general average may reduce a shipowner's liability and hence prevent future negligence. (Billah 2014, p. 2, f.nt. 7). It is doubtful that this is correct because shipowners themselves contribute to general average (if they are insured this may lead to an increase of premium) and under many systems cannot successfully claim contributions from other parties if the incident necessitating the measures was the result of their actionable fault (see para. 4.7 below).

<sup>13.</sup> Tetley 2003, p. 420; Loyens 2011, p. 649; Schoenbaum 2011, p. 254.

<sup>14.</sup> Anderson 2009, p. 186, 205-209; Billah 2014, p. 2; Cole 1924, p. 9; Selmer, p. 110, 190; Lopuski 2008, p. 336.

<sup>15.</sup> What has changed is that in case of historical apportionment, there was a division of risks, losses and costs amongst the parties to the common maritime adventure's own interest, whereas nowadays losses and costs in most cases are settled by the parties' underwriters. See also para. 4.5.2.6 below.

Arnould 2013, p. 1306; Hare 1999, p. 770; Puttfarken 1997, p. 322; Van Empel 1938, p. 6 and 149; Njokiktjien 1927. Lowndes even indicates that 'general average has nothing to do with insurance'. (Lowndes 1844, p. 6).

<sup>17.</sup> The respective contributions can be and often are insured though. However, before one considers insurance relationships, the internal contribution obligations between the parties to the maritime adventure have to be established. Also Arnould 2013, pp. 1306-1307.

<sup>18.</sup> This would only be different where the salving vessel is owned by one of the parties interested in the maritime adventure that is saved.

<sup>19.</sup> It is commonly accepted that salvage can be apportioned in general average. However, the criteria in which such apportionment is to take place vary per regulation. See, for example, the newly introduced Rule VI YAR 2016, which differs both from the YAR 1994 and the YAR 2004.

The classic example of general average is the jettison of cargo.<sup>20</sup> When in earlier times cargo was thrown overboard to lighten the vessel, the parties interested in the vessel and other property carried on board had to pay a compensation to the party whose cargo had been sacrificed.<sup>21</sup> The rule that if cargo was jettisoned to lighten the vessel 'what has been lost for the benefit of all must be made up by the contribution of all' was codified in the Digest of the Corpus Iuris Civilis, published in 534 A.D.<sup>22</sup> This rule has become known as the 'Lex Rhodia de Iactu',<sup>23</sup> due to the rule's reported Rhodian origin.<sup>24</sup> It is not clear whether its origin was Rhodian indeed and/or possibly even Phoenician or Babylonian.<sup>25</sup> It is commonly accepted that in ancient times the whole sector of maritime law was almost exclusively ruled by the customary law of the sea. It is likely that the law of the sea used in the Mediterranean was a mixture of legal systems. These rules had probably been existing for centuries and would have developed gradually around the Eastern Mediterranean coast. It is likely that at least some of these rules date back to the period of Phoenician supremacy, i.e. between 1200-800 B.C.<sup>26</sup> Possibly (some of) the rules were already applied at the time of the Babylonians, i.e. around 2000 B.C., or even before.<sup>27</sup> It is uncertain whether the contribution principle underlying the currently applied general average concept was already applied in any of these early periods. Opinions differ regarding the century in which the principle that apportionment of losses

Jettison of cargo appears to have been a commonly applied measure in time of danger. Reference is made, for example, to the biblical books Jonah I:5 and Acts 27:18,19.

<sup>21.</sup> Jettison of cargo gave rise to a distribution of losses in practically all historic maritime regulations. See inter alia Digest 14.2.1; Art. VIII Roles d'Oléron; Art. 20 and 38 Wisby Sea Laws; s. 4, Chapter on Shipwreck, jettison and average Philip II's Ordinance of 1563; s. 1, Du Jet, Ordinance of Marine 1681; s. 84 Rotterdam Ordinance 1721; s. 699 under 2 Dutch Commercial Code of 1838.

<sup>22.</sup> Where reference is made to Roman law below, the Digest of the Corpus Iuris Civilis is referred to. The term 'Roman law' may be somewhat misleading as the Corpus Iuris Civilis was only published in 534 A.D., whereas Rome, according to tradition, would have been founded in 753 B.C. See Lobingier 1935, p. 10.

<sup>23.</sup> Digest 14.2.2.1: 'Lege Rhodia cavetur, ut, si levandae navis gratia iactus mercium factus est, omnium contributione sarciatur, quod pro omnibus impensum est' (It is provided by the Rhodian Law that where merchandise is thrown overboard for the purpose of lightening a ship, what has been lost for the benefit of all must be made up by the contribution of all – Translation by Scott, 1932).

<sup>24.</sup> The prevailing opinion of legal writers during the centuries seems to have been that Roman maritime law, including the Lex Rhodia de Iactu, derives at least to a certain extent from and has been based on the maritime laws of Rhodes. These laws are assumed to include provisions of various predating systems. It is assumed that at Rhodes, which was a centre of international banking and trading and was famous for its schools of rhetoric, the Romans became acquainted with these customary rules. Lowndes (with reference to Cicero) 1888, p. 2; Kreller 1921, p. 269, 346; Philipson 1911, p. 379; Lobingier 1935. The Rhodian law has to be distinguished from the Rhodian Sea Laws. See, inter alia, Benedict 1905; Lobingier 1935; Delebecque 2014, p. 713; Kruit 2015.

<sup>25.</sup> See also Kruit 2015, p. 193.

Scott 2006 (1932), p. 271; Gofas 1994, p. 30; Reddie 1841, p. 36; Lobingier 1929; Gormley 1961, p. 321; Mukerjee, p. 4.

<sup>27.</sup> Lobingier 1929; Bogojevic 2005, p. 21; Gold 1981, p. 4; Delebecque 2014, p. 713.

suffered to save property from a common peril, was first applied in practice. The 10<sup>th</sup>, <sup>28</sup> 9<sup>th</sup>, <sup>29</sup> 8<sup>th</sup>, <sup>30</sup> 7<sup>th</sup>, <sup>31</sup> 4<sup>th32</sup> and 3<sup>th33</sup> century B.C. have all been suggested. <sup>34</sup>

Nowadays, jettison of cargo has become a more exceptional occurrence.<sup>35</sup> As vividly described by IUMI in 1994: '(...) *the traditional image of general average, with a crew beleaguered by the elements and desperately jettisoning cargo to prevent their ship from sinking, is a thing of the past*'.<sup>36</sup> The main situation of jettison currently still applied is when there are firefighting operations on board vessels. Containers are then occasionally set over board. However, these days, the concept of general average is generally used when a maritime casualty has occurred and measures are taken to minimise the total overall damage, which results in expenses being incurred.<sup>37</sup> Fires on board are extinguished, 'dead' vessels are refloated.<sup>38</sup> All these measures may be taken for the benefit of the vessel and the property involved in the maritime adventure on board the vessel. Costs incurred with salvage activities may be incurred for the common interest.<sup>39</sup> If they were not be made, the vessel and everybody and everything on board thereof might be lost or at least suffer further damage. The same applies when an explosion has caused a fire on board and cargo is thrown

<sup>28.</sup> Gormley 1961, p. 320; Parsons 1868, p. 202. Goff & Jones 1998, p. 427.

<sup>29.</sup> Stevens 1817, p. 4; Lowndes 1844, p. 4. According to Reddie, several writers (Selden, Fournier and De Pastoret) would all have defended that the Lex Rhodia de Iactu dated back from the 9<sup>th</sup> century B.C. Reddie adds that they were 'apparently influenced by the desire of showing the high antiquity of the object of their admiration, rather than guided by historical evidence.' (Reddie 1841, p. 63).

<sup>30.</sup> Tetley 1994, p. 107.

<sup>31.</sup> Rudolf 1926, p. 1; Schadee 1949, p. 10.

<sup>32.</sup> Tsimplis & Shaw in: Baatz a.o. 2014, p. 246. It seems to follow from the speech of Demosthenes against Lacritum that the laws of Athens already provided for a principle of contribution for jettisoned cargo and payment of ransom in the 4<sup>th</sup> century B.C. (Van der Mersch 1868, pp. 1-2; Holtius 1861, p. 258. Sanborn 1930, p. 6). However, Van Empel submits that the speech concerned a maritime loan. The fact that jettison is mentioned in the speech would not have to imply that a contribution had to be made. In his view, the fact that there are no known Greek cases regarding a general average contribution means that the Greek laws did not recognise or would have had a general average principle (Van Empel 1938, p. 105).

<sup>33.</sup> Sanborn 1930, p. 5; Hare 1999, p. 770.

<sup>34.</sup> Buglass (1973, p. 115) even claims that 'general average is as old as the oldest comercial sea voyages.'

<sup>35.</sup> This is also recognised inter alia by Tsimplis & Shaw in: Baatz a.o. 2014, p. 246; Schoenbaum 2011, p. 254 and Puttfarken 1997, p. 320.

<sup>36.</sup> IUMI Report 1994, p. 12.

<sup>37.</sup> That expenses in practice more often resulted in general average than jettison was already the situation in 1866. Morrison 1866, p. 39: 'Although in most works on average much attention has been devoted to the subject of jettison, and sacrifices generally, as being the most ancient sources of contribution, undoubtedly the more important act is comprehended in the term expenses. It is by far the most common, considering the many general average acts which take place.' In 1994, the IUMI General Average Working Party distributed the conclusions of its study on general average's impact on marine insurance. Over thousand general average incidents were considered. The conclusion was that the main causes of general average, both by number of claims and by value of claims were grounding, collision, engine failure or fire on board. Even though the study is over 20 years old, it still gives an interesting insight. IUMI Report 1994, pp. 6-9.

For examples of contemporary general average incidents and disbursements, see also Enge & Schwampe 2012, pp. 74-75.

<sup>39.</sup> Salvage costs are in particular incurred for the benefit of all parties to the maritime adventure when the parties interested in the salved property do not each pay the salvage remuneration due in respect of their property, but the full amount of salvage remuneration is settled by the shipowners on behalf of all saved properties instead. This is, for example, the situation under Dutch law (s. 8:563(3) Dutch Civil Code).

overboard or is intentionally damaged in the fire extinguishing activities.<sup>40</sup> If no action is taken after these casualties, the vessel, including her cargoes, may well perish or may in any event not arrive at the place of destination. It is commonly accepted that in such circumstances a division of damage intentionally incurred for the benefit of all has to take place. Costs incurred and cargo sacrifices suffered are shared by the maritime parties by the mechanism of general average.

### 2.2 Development of the general average concept

#### 2.2.1 From jettison to more general rules

Even though jettison is no longer a common occurrence, both from a more theoretical and from an historical point of view, its value is difficult to exaggerate. In spite of the time elapsed since the codification of the Lex Rhodia de Iactu in 534 A.D., it is generally acknowledged that the general average concept is founded on the Digest's Lex Rhodia de Iactu.<sup>41</sup> From Roman times onwards, in principle all important maritime regulations contain provisions which provide in which specific circumstances a distribution of specific losses and costs has to take place. The development of the principle to the currently applied general average concept, however, is not linear. Practically all regulations provided that in situations where cargo was jettisoned<sup>42</sup> or masts or cables were cut for the common benefit,<sup>43</sup> the loss was to be shared by the parties who had benefitted thereof.<sup>44</sup> In addition, some regulations also stipulated that a contribution was to be made in other specifically indicated situations. Examples of such specific 'general average situations' are ransoms paid to pirates,<sup>45</sup> costs resulting from crew's injuries sustained during

<sup>40.</sup> Holds in which cargo is carried may be flooded, resulting in damage to the cargo carried therein or contents of containers stowed in the vicinity of burning containers may be damaged by water. As examples of such casualties where fires have broken out on board and general average measures were taken can be mentioned the mv. 'Hyundai Fortune' in March 2006, the mv. 'MSC Napoli' in January 2007 and the mv. 'MSC Flaminia' in July 2012.

<sup>41.</sup> Worst submits that the Lex Rhodia de Iactu would be the origin of general average for all sea going nations. (Worst 1929, p. 3). Flanders even states that the Lex Rhodia de Iactu would be 'the germ of the whole doctrine of average.' (Flanders, 1952, p. 232). See also Anderson 2009, p. 207; the English case law: Lord Blackburn in Anderson v. Ocean S.S. Co (1884) 10 App. Cas. 107 at. p. 114; Vaughan Williams L.J. in Milburn v. Jamaica Fruit Importing Co. [1900] 2 Q.B. 540, at 550; Sanborn, 1930, p. 5 and recently Sir Rix in The Lehmann Timber (Metal Market 000 v. Vitorio Shipping) [2013] 2 Lloyd's Rep. 541, para. 130. Also the US case: Cia Atlantica Pacifica, S.A. v. Humble Oil & Refining Co. 274 F.Supp 884 (1967).

<sup>42.</sup> Digest 14.2.1; Art. VIII Roles d'Oléron; Art. 20 and 38 Wisby Sea Laws; s. 4, Chapter on Shipwreck, jettison and average Philip II's Ordinance of 1563; s. 1, Du Jet, Ordinance of Marine 1681; s. 84 Rotterdam Ordinance 1721; s. 699 under 2 Dutch Commercial Code of 1838.

<sup>43.</sup> Digest 14.2.5. 1; Art. IX Roles d'Oléron; Art. 12, 21 and 39 Wisby Sea Laws; s. 4, Chapter on Shipwreck, jettison and average, Philip II's Ordinance of 1563; s. 85 Rotterdam Ordinance 1721; s. 1 and 2, Du Jet, Ordinance of Marine 1681; s. 699 under 3 Dutch Commercial Code of 1838.

<sup>44.</sup> For a more extensive discussion of the historic general average regulations, see Kruit 2015.

<sup>45.</sup> Digest 14.2.2.3; Rhodian Sea Laws (Ashburner 1909, p. 272); s. 6, Des Avaries, Ordinance of Marine 1681; s. 100 Rotterdam Ordinance 1721; s. 699 under 1 Dutch Commercial Code of 1838. Park 1787, p. 140. In piracy cases, traditionally only ransoms paid to pirates and not to enemies of the State could be apportioned in general average, as the latter were prohibited by statute and thus illegal (Abbott 1802, p. 279). At the beginning of the 21<sup>st</sup> century the discussion whether ransoms paid to pirates could be apportioned in general average received much attention as a result of the increased piracy off the coast of Somalia. Neither the YAR, nor most national regimes do specifically answer the question whether and if so, which, expenditures incurred as a result of a hijack can be brought in general average. Although the question has not yet been answered definitively in the case law, it seems to have been accepted that some of the costs related to releasing a vessel from a hijack,

fights with pirates and foreign vessels,<sup>46</sup> jettison of the vessel's equipment,<sup>47</sup> damage caused by intentional stranding,<sup>48</sup> costs incurred to lighten a vessel after she was stranded<sup>49</sup> or in order to get her into port,<sup>50</sup> and (wetting) damage as a result of a jettison.<sup>51</sup>

The specifics of the various systems in which the distribution principle was applied, differed considerably.<sup>52</sup> None of the historic laws provided for a general right of apportionment in all the situations where certain requirements had been met. Nevertheless, some basic prerequisites for a division of damage can be deducted from the events which gave rise to a division of losses and costs as listed in the historic regulations.<sup>53</sup> There had to be a loss of property that was intentionally incurred in order to save other property from danger<sup>54</sup> and was thus made in the interest of common safety.<sup>55</sup> These requirements can still be found in most contemporary general average regulations. In addition, the measures taken in some cases were required to have been successful in order to give rise to a contribution.<sup>56</sup> Many

like ransoms paid to pirates, can in principle be recovered in general average. English law: Lowndes & Rudolf 2013, pp. 108-110; Hazelwood/Semark 2010, p. 177; Arnould 2013, pp. 1356-1357. *Mitsui & Co Ltd & others v. Beteiligungsgesellschaft LPG Tankerflotte MBH & Co KG (The Longchamp)* [2014] EWHC 3445 (Comm). For Dutch law see The Hague Court of Appeal 1 December 2009, *S&S* 2010, 62; ECLI:NL:GHSGR: 2009:BL2811 ('Lehmann Timber').

<sup>46.</sup> S. 28 Charles V's Ordinance of 1551; s. 2, Chapter on Shipwreck, jettison and average, Phillip II's Ordinance of 1563; s. 11, Des Loyens des Matelots, Ordinance of Marine 1681, s. 99 Rotterdam Ordinance 1721; s. 699 under 7 Dutch Commercial Code of 1838.

Digest 14.2.3; Art. IX Roles d'Oléron; s. 15, Du Jet, Ordinance of Marine 1681; s. 90 Rotterdam Ordinance 1721; s. 699 under 4 Dutch Commercial Code of 1838.

<sup>48.</sup> S. 4, Chapter on Shipwreck, jettison and average, Philip II's Ordinance of 1563; s. 699 under 15 Dutch Commercial Code of 1838. Such damage was excluded from general average under the Practical Rules applied in England in the 19<sup>th</sup> century. (Baily 1856, p. 41.)

Art. 59 of the Wisby Sea Laws; s. 10, Chapter on Shipwreck, jettison and average, Philip II's Ordinance of 1563; s. 19 and 20; Du Jet, Ordinance of Marine 1681; s. 699 under 16 Dutch Commercial Code of 1838.

<sup>50.</sup> Expenses incurred in the port of refuge did not automatically give a right to a contribution. Under Roman law, these were excluded from apportionment. (Digest 14.2.6.)

<sup>51.</sup> Digest 14.2.4.2; s. 85 Rotterdam Ordinance of 1721; s. 699 under 5 Dutch Commercial Code of 1838; Park 1787, p. 141.

<sup>52.</sup> Also Kruit 2015, p. 200.

<sup>53.</sup> Also Kruit 2015, p. 200-201. These requirements are still applied in some of the contemporary general average regulations. See para. 4.2 below.

<sup>54.</sup> The required degree of danger always had and still has an element of uncertainty as it cannot be defined exactly (Benecke 1824, p. 171). It depends on the facts of the specific matter, the general average loss or expense involved and the applicable national law, which degree of danger is required (Selmer 1958, pp. 69-71; Lowndes & Rudolf 2013, pp. 86-101; Hudson & Harvey 2008, pp. 32-33). Molengraaff lists the Dutch case law on the required degree of danger available in 1912 and concludes that different decisions have been taken (Molengraaff 1912, pp. 546-547). It follows from more recent case law that the courts consider all facts of the matter in order to determine whether danger was present. See, for example, the decision of the Court of Appeal of Amsterdam of 5 February 2004, *SGs* 2004, *85*, ECLI:NL:GHAMS:2004:AQ7100 ('Federal Schelde'/Ararat'). When Rule A YAR was drafted in 1924, the required degree of danger, as well as the question whether danger had to be imminent were deliberately left open (Rudolf 1926, pp. 42-43).

Verwer 1700, p. 116; Molengraaff 1912, p. 546; Ashburner 1909, pp. 253-256; Kreller 1921, p. 288; Beawes 1754, p. 148; Park 1809, p. 173.

<sup>56.</sup> Digest 14.2.4.1 and 14.2.5. Ashburner 1909, p. 253; Reddie 1841, p. 99; Van der Linden 1806, p. 499. Pothier 1821, p. 61; Park 1787, p. 139; Weskett 1781, p. 252; Holtius 1861, p. 328. S. 15, Du Jet, Ordinance of Marine of 1681 explicitly stated the requirement of success. According to Selmer, success was not required for a loss or disbursement to qualify as general average (Selmer 1952, pp. 24-25). Pursuant to Benecke, a requirement of success was not 'compatible with the nature of the subject'. It would be difficult to determine whether preservation was the result of a particular measure, whereas costs incurred in an attempt should not be borne by one of the parties (Benecke

regulations also set additional requirements that had to be met in order for measures to give rise to a contribution. Some regulations, for example, required the merchants' or the crew's approval of actions taken before the costs could subsequently be apportioned;<sup>57</sup> others provided that the heaviest goods were to be thrown overboard first.58

As the distribution principle underlying the specifically indicated cases lent itself to generalisation, the Gloss of Accursius (approx. 1230 A.D.) extended the principle by construing it in a general manner.<sup>59</sup> It provided that: 'For it is perfectly equitable that the damage be borne jointly by those who, thanks to the fact that the property of others has been lost, have found themselves in a situation whereby their own goods have been saved.<sup>60</sup> This general rule was not included in the shipping regulations that were widely applied at the time, i.e. the Roles d'Oléron or in the Wisby Sea Laws.<sup>61</sup> The all-encompassing term 'general average' was codified only in the Ordinance ('Placcaat') of emperor Charles V on shipping in 1551.<sup>62</sup> Possibly, this is not only the first definition of general average in the Netherlands, but also the first of (Northern) Europe and maybe worldwide, as Lowndes and Selmer indicate that the first express defi-

<sup>1824,</sup> p. 172). In the last century, success did not seem required any longer (Dowdall 1895, pp. 36-37). See on the requirement of success also Seeliger 1894.

<sup>57.</sup> The requirement that the merchants' approval was to be obtained not only served justice, but also prevented evidentiary problems. Under most regulations the vessel did not have to contribute for her full value, whereas the cargo value was taken into account in full. As merchants accompanied their cargoes on board, such approval could easily be obtained (Lowndes 1844, p. 5). In respect of damage to a vessel the Digest provide that in order to be made good, the damage must have occurred with the consent of the passengers or on account of their fear (Digest 14.2.2.1). The requirement of approval therefore seems limited to the situation where damage was caused to the vessel and does not seem required in other situations, like jettison of cargo. The Rhodian Sea Law (Ashburner 1909, p. 258), Roles d'Oléron (Arts, VIII and IX), Wisby Sea Laws (Arts, 20, 21, 38, 39), Philip II's Ordinance of 1563 (s. 4, Chapter on Shipwreck, jettison and average), the Rotterdam Ordinance of 1721 (s. 96 cf. 144, 145) and the Dutch Commercial Code of 1838 (s. 699 under 23 Dutch Commercial Code of 1838) all obliged the master to consult the merchants and/or crew before actions were taken that would give rise to a contribution. Regarding the specific general average situations set out in s. 699 under 1-22 Dutch Commercial Code of 1838 it was not explicitly provided that the master had to consult the crew and or cargo interested parties. Nevertheless, consultation was probably required after all, as s. 367 Dutch Commercial Code of 1838 required the master in all important matters to consult the shipowners, shippers or their representatives, if present on board, and in all situations consultation of the officers and the main crew members had to take place (Molster 1856, pp. 6, 128-129; also Loder, a judge of the Dutch Supreme Court cited in Rudolf 1926, p. 254). In case approval had not been obtained, some regulations required the master and/or crew to swear that the jettison had been necessary (Art. VIII of the Roles d'Oléron; Art. 38 Wisby Sea Laws). According to Van der Linden, this was also required under Dutch law at the beginning of the 19<sup>th</sup> century (Van der Linden 1806, pp. 498-499). Pursuant to 19<sup>th</sup> century English law, approval does not appear to have been strictly required. It was held in Birkley v. Presgrave [1801] 1 East 220, 102 ER 86 that 'The rule of consulting the crew upon expediency of such sacrifices is rather founded in prudence in order to avoid dispute than in necessity: it may often happen that the danger is too urgent to submit of any such deliberation.' A consultation requirement is still included in s. 452 of the Maltese Commercial Code in respect of jettison.

S. 5, Chapter on Shipwreck, jettison and average, Philip II's Ordinance of 1563; s. 3, Du Jet, Ordinance 58. of Marine of 1681. This requirement can still be found in s. 453 of the Maltese Commercial Code. 59. Zimmermann 1992, pp. 409-410.

Brandsma 2006, p. 10; Lokin 2003, p. 260. 60.

Both sets of rules merely provided for specific situations in which apportionment was to take place. 61. Reportedly Charles V's Ordinance of 1551 was issued upon request of his 'Dutch citizens' and with 62. assistance of trade and maritime experts (Le Clercq 1757, p. 189; Van Glins 1695, pp. 6-7). Charles V's Ordinance probably was based on the Judgments of Damme and the Ordinance of Amsterdam (i.e. two of the three regulations that formed the Wisby Sea Laws), with additions of local laws (Verwer 1711, p. 62. Goudsmit 1882, p. 9; Kruit 2015, p. 198).

nition of general average is to be found in the 'Guidon de la Mer', published between 1556 and 1584, so after Charles V's Ordinance.<sup>63</sup> It was provided in Charles V's Ordinance that in as far as costs were incurred or losses were suffered for the common benefit of vessel and cargo, all these costs and losses would be apportioned in general average between vessel and cargo, in accordance with ancient custom of the sea.<sup>64</sup> As also pointed out by Verwer, the term 'general average' is used in Charles V's Ordinance as if it was commonly applied already.<sup>65</sup> However, it was not set out in any of the most influential laws at the time, like the Wisby Sea Laws or the Consolato del mare. The general rule was not immediately commonly accepted in legal regulations either. Charles V's 1551 Ordinance on shipping was succeeded 12 years later by the 1563 Ordinance of his son Philip II. The broad general average rule introduced in 1551 was not taken over.<sup>66</sup> In fact, it took approximately 130 years before it was recodified in a continental national shipping regulation.<sup>67</sup> In England, the concept of general average was not applied in a more general manner until 1799, when Mr Justice Stowell gave the first definition.<sup>68</sup> Two years later, another definition was given by Mr Justice Lawrence, which, even though it was qualified in subsequent cases,<sup>69</sup> appears to be the foundation of the English law of general average.<sup>70</sup> He stated that general average is 'all loss which arises in consequence of extraordinary sacrifices made or expenses incurred for the preservation of the ship and cargo'.<sup>71</sup> A definition in similar wording was later codified in the English Marine Insurance Act of 1906.<sup>72</sup>

<sup>63.</sup> Lowndes 1888/1922, p. 15; Selmer 1958, p. 47; Lowndes & Rudolf 2013, p. 7.

S. 41 Charles V's Ordinance of 1551. In Dutch: 'soo verrre eenige provisie gedaen, ofte oock eenige schade geleden worden, tot gemeyne beneficie van de schepe ende goeden doende de solemniteyt, vermaningen ende andere diligentien van oudts geploghen: sal al het selve den beschadighden ende geinteresseerden goet gedaen worden, in groote avarije gedeeligh onder schip ende goet na ouder gewoonte van der Zee' (Verwer 1711, p. 66; Olivier 1839, p. 209; Le Clercq 1757, p. 206; Kroock 1664, p. 37). Also Kruit 2015, p. 199.

<sup>65.</sup> Verwer 1711, p. 217.

<sup>66.</sup> The term 'general average' was used to qualify specific costs. It was provided, for example, that injured crew members were to be paid 'as general average' (s. 2, Chapter on Shipwreck, jettison and average, Philip II's Ordinance 1563).

<sup>67.</sup> S. 2, 3, Des Avaries, Ordinance of Marine of 1681: 'Every extraordinary expense which is made for the ship and merchandise conjointly or separately, and every damage that shall occur to them from their loading and departure until their return and discharge, shall be reputed average. Extraordinary expenses for the ship alone, or for the merchandise alone, and damage which occurs to them in particular, are simple and particular average; and extraordinary expenses incurred, and damage suffered for the common good and safety of the merchandise and the vessel are gross and common average. Simple averages are borne and paid by the thing which shall have suffered the damage or caused the expense, and the gross and common shall fall as well upon the vessel as upon the merchandise, and shall be equalized over the whole at the shilling in the pound.' Translation by Lowndes (Lowndes 1888, p. 16).

<sup>68.</sup> The Copenhagen (1799), 1 Chr. Rob. 289: 'General average is for a loss incurred, towards which the whole concern is bound to contribute pro rata, because it was undergone for the general benefit and preservation of the whole'. According to Lowndes, this definition was taken over from the Ordinance of Marine of 1681, albeit with slight improvements in form (Lowndes 1888, p. 22).

<sup>69.</sup> Inter alia in *The Leitrim* [1902] P. 256, 266, where it was held that only losses as a result of accidental circumstances could qualify as general average.

<sup>70.</sup> Lowndes 1888, p. 18; Goff & Jones 1998, p. 428.

<sup>71.</sup> Birkley v. Presgrave (1801), I East 220 at p. 228. The definition has been adopted inter alia by Lord Mansfield in Covington v. Roberts (1806) 2 Bos & P. N.R. 378.

<sup>72.</sup> S. 66 MIA 1906: '(1) A general average loss is a loss caused by or directly consequential on a general average act. It includes a general average expenditure as well as a general average sacrifice. (2) There is a general average act where any extraordinary sacrifice or expenditure is voluntarily and reasonably made or incurred in time of peril for the purpose of preserving the property imperilled in the common adventure.' See also para. 4.2 below.