

# ***LEX MARITIMA* IN A CHANGING WORLD – A CLOSE LOOK AT DEVELOPMENT AND PROSPECT OF RULES GOVERNING CARRIAGE OF GOODS BY SEA**

Dr Lijun Zhao\*

© Springer Nature Switzerland AG 2020, P. K. Mukherjee et al. (eds.), *Maritime Law in Motion*, WMU Studies in Maritime Affairs 8, pp.761-783, [https://doi.org/10.1007/978-3-030-31749-2\\_37](https://doi.org/10.1007/978-3-030-31749-2_37)

## **Abstract:**

This research examines the attempts to unifying law governing carriage of goods by sea and the background to these attempts over the past hundred years or so. It finds that a repetition of the current mode of negotiating static conventions will not unify these rules. Moreover, from historic and legal perspectives, the attempts to unify the international carriage of goods by sea regimes in the past century have remained transitional. The active players have shifted from private entrepreneurs to government delegates. This research probes into the new trade practice for the shipping industry in the 21st century and argues that new ‘landscape’ calls for innovative modifications of the conventional approach to unifying carriage of goods by sea rules. This research also forecasts the prospects of the Rotterdam Rules and discusses several countries’ current attitudes, including the UK, the Netherlands, Scandinavian countries and, particularly, the USA.

## **1. Introduction**

Maritime law has a long tradition of international uniformity. The existence of ‘*Lex Maritima*’ comprising a complex of internationally accepted rules of maritime law which may be traced in particular back to usage and general principles is widely, and even increasingly, subscribed to by legal doctrine.<sup>1</sup> The international community has tried to unify

---

\* Senior Lecturer, Middlesex University London, Qualified lawyer in China, Fellow of the Society of Legal Scholars and the British Institute of International and Comparative Law. Research interest: International Business Law and International Law. Email: [L.Zhao@mdx.ac.uk](mailto:L.Zhao@mdx.ac.uk). An early version of this work has been

the rules governing carriage of goods by sea since the late 19<sup>th</sup> century, the adoption of international conventions. Nevertheless, the development of uniform rules has slowed down. This research intends to examine the existing attempts to unifying carriage of goods by sea rules and foresee the prospect of the latest convention in this area of law – the Rotterdam Rules.

The first breakthrough took place with the negotiations of the Brussels Convention for the Unification of Certain Rules of Law Relating to Bills of Lading ('Hague Rules') in the 1920s.<sup>2</sup> As the laws lagged behind commercial practice, the second attempt at uniformity was the Visby amendments to the prior convention ('Visby Rules').<sup>3</sup> After World War II, the work towards uniformity went through an interregnum, shifting from mainly private commercial efforts to more politicised pressures.<sup>4</sup> The more revolutionary attempts have been the United Nations Convention on the Carriage of Goods by Sea ('Hamburg Rules')<sup>5</sup> in the 1970s, and the recent United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea ('Rotterdam Rules').<sup>6</sup> Numerous scholars have devoted themselves to the technical aspects of the four related conventions,<sup>7</sup> but there has been little literature scrutinising the dynamics between all the attempts to unify the law.<sup>8</sup>

“Every true history is contemporary history.”<sup>9</sup> Over the centuries, trade practice has been the primary driver of change in the way in which transport and shipping are carried out the global trade. History can often be seen to repeat itself. By setting the preceding conventions of the Rotterdam Rules in their historical contexts, readers can understand better the aim and prospect of the Rotterdam Rules themselves. An historical review of the unifying efforts by the international community to date will provide us with the necessary perspective to appreciate the cyclical and interactive processes involved.

---

presented and commented at the 9<sup>th</sup> International Conference on Maritime Law, held by China Maritime Law Association and organised by Shanghai Maritime University, in Shanghai. I thank the anonymous reviewers and commentators for their careful reading and invaluable feedback.

<sup>1</sup> CMI (2018).

<sup>2</sup> The Hague Rules (1924).

<sup>3</sup> The Visby Rules (1968).

<sup>4</sup> For an instructive comparison of the historical Hague Rules process and the contemporary Hamburg Rules process, see Fredrick (1991), pp.81-117.

<sup>5</sup> The Hamburg Rules (1978).

<sup>6</sup> The Rotterdam Rules (2008).

<sup>7</sup> E.g. Diamond (2009), pp445-536. Baatz (2009). Some other literature compared the related conventions from a doctrinal analytical perspective. e.g. Force (1996); Yancey (1982).

<sup>8</sup> E.g. Faria (2008), pp277-310. Cf. Honold (1993), p.75.

<sup>9</sup> Croce and Ainslie (1960).

## 2. Lessons Learned from the Age Shaping the Hague Rules

### *2.1 Steamer Vessels, Opening of the Suez Canal, and Liner Conferences (1850s-1900s)*

In the second half of the 19<sup>th</sup> century, the shipping industry experienced unprecedented developments.<sup>10</sup> The steam engine significantly increased the power of vessels,<sup>11</sup> and as a result enhanced their ability to transport goods. Between 1854 and 1856, John Elder reduced fuel consumption of these engines to approximately 2 to 2.5 pounds of good coal per horsepower per hour thus enhancing their capacity for steamers.<sup>12</sup> Later, the invention of the compound engine and the triple expansion engine also substantially cut fuel consumption, and thus space formerly used for fuel storage became available for cargo.<sup>13</sup> The improvements in engines further reduced the cost of ocean carriage.<sup>14</sup> Consequently, steam ships became competitors to the sailing ship in the early 1880s.<sup>15</sup>

Steamers also increased the amount of goods carried. Fletcher has estimated that international sea carriage of goods increased over 400 percent between 1850 and 1869.<sup>16</sup> The increased size of the shipping industry arose from the conversion from sailing vessels to steamers.<sup>17</sup>

The steam vessel further guaranteed transportation frequency and encouraged the emergence of liners. Before the emergence of the steamer, sea carriage was undertaken by sailing fleets, relying heavily on the wind.<sup>18</sup> So, the scope of shipping was limited by the wind.<sup>19</sup> Because of the vagaries of the wind and ocean currents, sailing ships could not offer a regular scheduled service.<sup>20</sup> However, steamships began to offer regular and scheduled services, and liner shipping became established.<sup>21</sup>

Moreover, the opening of the Suez Canal in 1869 significantly shortened the transportation distance between Europe and Asia, and caused dramatic changes to the international sea

---

<sup>10</sup> Faria (2008), pp.279, 319.

<sup>11</sup> Clapham, (1952), p.71. See Holt (1878), pp.2-11.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid. See Harley (1971), pp215-234.

<sup>14</sup> Harley (1971).

<sup>15</sup> Ibid.

<sup>16</sup> Fletcher (1958), pp.556–573.

<sup>17</sup> Ibid, 558.

<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

<sup>20</sup> See Boyce (1995), p.25.

<sup>21</sup> See Armstrong (1991), pp.55-65. See also Burley (1968). Although sailing ships were operated as liner shipping on the UK-Australia and Germany-South America routes, this was very exceptional.

carriage of goods.<sup>22</sup> Sailing ships were hampered by the lack of wind and ocean currents in the Red Sea, the Suez Canal and the Mediterranean Sea, as well as the prohibitive cost of being towed more than a hundred miles through the canal.<sup>23</sup> After the inauguration of the Suez Canal on 17 November 1869, steamers started replacing sailing ships particularly on the routes between the Far East and Europe.<sup>24</sup>

These developments in shipping practice triggered the formation of liner conferences. The first successful liner conference (the Calcutta Conference) emerged in 1875, shortly after the opening of the Suez Canal.<sup>25</sup> Subsequently, liner conferences spread worldwide.<sup>26</sup> These conferences aimed to stop uncontrolled destructive competition, preventing freight rebates to preferential shippers, and to impose equal rates on ports.<sup>27</sup> On the whole, the invention of the steamship, the opening of the Suez Canal, and the formation of the liner conference system, largely shaped the shipping industry of the second half of the 19<sup>th</sup> century.<sup>28</sup>

As demonstrated from the history that the steamer vessels had not replaced sailing vessels for a long period of time, and they in fact co-existed and also competed with each other in the Eurasian trade route, for instance, of tea trade. The replacement was not resulted from, at least not the only cause, the “new” technology of steamers grew mature. Still importantly, the newly emerged shipping route, the opening of the Suez Canal, shaped the commercial need and accordingly shipping routes and practice. Accordingly, the author predicts that the newly emerged technology, such as blockchain and unmanned and autonomous vessels, would be coexisting with what we have had for now, for some time which might last several decades.

---

<sup>22</sup> The distance had been reduced to nearly half. See Fletcher (1958), p. 559. See also Samuda (1870), pp.1-8. Take the journey from Bombay, India to Liverpool, UK as an example: a sailing ship required an 11,560 sea-mile trip round the Cape of Good Hope; by substituting the canal route for the Cape, a steam ship could save 5,777 nautical miles.

<sup>23</sup> Ibid, 558.

<sup>24</sup> Ibid, 558-559 (From December 1869 to 1875, there were only 238 sailing ships out of the 5236 vessels passing through the canal). Because there is not enough wind power (and ocean currents) for them in the Suez-Canal-and-Red-Sea route as opposed to the open-seas route, the sailing ships had to take longer routes via the Cape of Good Hope, However, the consumption of fuel made them less competitive than steamers on the Europe-Asia routes.

<sup>25</sup> Sjoström (2004), p.107.

<sup>26</sup> E.g. The Australia conference was launched in 1884, the South African conference in 1886, the West African and northern Brazil conference in 1895, the River Plate conference in 1896, the west coast of South America conference in 1904, and a North Atlantic trade conference around 1900. These conferences covered most outbound transport from Europe, while the inbound voyage was carried by tramp vessels for bulk cargo. See more in H.J. Dyos and D.H. Aldcroft, *British Transport: An Economic Survey from the Seventeenth Century to Twentieth* (Penguin Books, 1969); Adam Kirkaldy, *British Shipping, its History, Organisation and Importance* (1914), < <https://archive.org/details/britishshipping00unkngoog>>, accessed 5 August 2018. Daniel Marx, *International Shipping Cartels: a Study of Industrial Self-regulation by Shipping Conferences* (Greenwood Press, 1953), 5.

<sup>27</sup> Faria (2009), pp.277, 278.

<sup>28</sup> Ibid, 279, 319.

## ***2.2 The Wave of Harter-style Domestic Legislation Prior to the Hague Rules (1892-1919)***

Courts in different jurisdictions held various attitudes towards the exculpatory clauses under the regime of freedom of contract. Traditionally, the courts, particularly those of the UK, prioritised the freedom of contract, even in the event that the two contracting parties held different bargaining powers.<sup>29</sup> This was not taken for granted in the US, however. The courts in different jurisdictions, therefore, held varying attitudes towards the freedom of contract and exemption clauses, depending on the public policy<sup>30</sup> underpinning the specific country. On balance, “in countries where cargo interest dominated, ‘negligence’ clauses were declared invalid; in other countries, where hull interests prevailed, such clauses were given effect under the cover of an almost unlimited freedom of contracting.”<sup>31</sup>

Those with cargo interests increasingly detested the carriers’ abuse of their predominant power over exculpatory clauses.<sup>32</sup> The resistance against freedom of contract came not only from shippers, but also from others with cargo interests, such as bankers and underwriters.<sup>33</sup> In 1890, the British cargo interests, for example, the Glasgow Corn Trade Association, complained to the British Prime Minister that carriers’ “bills of lading are so unreasonable and unjust in their terms as to exempt [the carriers] from almost every conceivable risk and responsibility.”<sup>34</sup> Meanwhile, French<sup>35</sup> and American cargo interests also shared this concern.<sup>36</sup> Despite the hostility of the US courts to these exculpatory clauses, carriers continued benefiting from them, because the choice-of-law and choice-of-forum clause required all cargo claims to be initiated in the UK under British law.<sup>37</sup> Thus, American cargo interests started to lobby the US Congress to oppose the European carriers.<sup>38</sup> Additionally, in the late 19<sup>th</sup> century, the rise of the United States as a power equal to Europe increased the

---

<sup>29</sup> Yiannopoulos (1958), pp. 609–627.

<sup>30</sup> In *re Missouri Steamship Company* (1889) LR 42 ChD 321, 322, it was for the court to decide if it was the English law or the US law which governed the contract of carriage in question, whereas the negligence clause would be enforceable in England but void in the United States in light of public policy. The Hague Rules afford protection to the underdog with weaker bargaining power, especially when a third party is engaged, who is necessarily bound by the contract of carriage without having had any chance to negotiate the contract under the public policy protection for them.

<sup>31</sup> Yiannopoulos (1958), p.609.

<sup>32</sup> Knauth (1953).

<sup>33</sup> Sturley (2010), pp. 8-9, paragraphs 1.027-1.033

<sup>34</sup> Petition of Glasgow Corn Trade Association (1890), reprinted in H.R. Rep. No. 1988, 52d Cong., 1st Sess. 2 (1892), and cited in Sturley (1991).

<sup>35</sup> See Dor (1956).

<sup>36</sup> Knauth (1953), p. 116 (stating that US cargo interests regarded the bills of lading in North Atlantic trade as where a carrier “accepted goods to be carried when he liked, as he liked, and wherever he liked”).

<sup>37</sup> See e.g., H.R. Rep. No. 1988, 2 and 24 Cong. Rec. 172 (1892) (‘Rep. Coombs’).

<sup>38</sup> Mangone (1997), p.79.

influence of American domestic law in international shipping.<sup>39</sup> In consequence, the US Harter Act<sup>40</sup> was enacted in 1893 to balance cargo and vessel interests governing all sea carriage to and from the US.<sup>41</sup>

The Harter Act and subsequent judicial rulings<sup>42</sup> set American courts on a path greatly different from that of UK rulings.<sup>43</sup> The shift originated from the US Supreme Court's recognition of the need to protect American shippers by American courts. The American domestic merchant fleet relied on British steamships for international carriage of goods by sea, owing to the decline of the American shipping industry.<sup>44</sup>

The US Harter Act has had a long-lasting impact on carriage of goods by sea.<sup>45</sup> Being an aggressive<sup>46</sup> regulation, it triggered a wave of legislation dominated by cargo interests in lieu of hull interests not only in the US, but also in Commonwealth countries. Several countries followed the US and unilaterally enacted domestic legislation governing exoneration clauses in bills of lading.<sup>47</sup> Besides the US Harter Act 1893, there were another four Harter-style pieces of legislation enacted prior to the Hague Rules.<sup>48</sup> These were the Australian Carriage of Goods by Sea Act 1904,<sup>49</sup> the New Zealand Shipping and Seamen Act 1903,<sup>50</sup> the Canadian Water Carriage Act 1910,<sup>51</sup> and the French Morocco Maritime Commercial Code

---

<sup>39</sup> Faria (2009), 279. The Europe was the undeniably supreme power of the world when the US Harter Act was ratified in 1893. However, Japan and the United States became ascendant powers before World War I. Europe, which had colonised virtually all the African continent, as well as many parts of Asia and the Pacific regions, was about to be surpassed by the US after World War I.

<sup>40</sup> United States, the Harter Act 1893, 27 Stat. 445 (1893). The Harter Act is currently codified at 46 U.S.C. app. §§ 190-196 (1998).

<sup>41</sup> See also Sturley (1991), pp.11-14 (pinpointing the process of the passage of the US Harter Act as a compromise balancing cargo and hull interests).

<sup>42</sup> For example, in *Missouri Steamship Co.*, Re(1889) 42 Ch D 321, the traditional conflicts rule to apply British law which upheld an exculpatory clause were overlooked, and the law of the US port of loading held the exculpatory clause invalid.

<sup>43</sup> See also Sweeney (1993).

<sup>44</sup> Before the American Civil War (1861-1865), foreign flag carriage in the American international trade accounted for approximate 33 percent during 1855-1859, but the effect of the northern blockade of the southern originating exportation and the destruction of the northern shipping industry increased foreign carriers' involvement to 56 percent.

<sup>45</sup> Sweeney (1993), p.1.

<sup>46</sup> See Sturley (1991), p. 4.

<sup>47</sup> Ibid, 10.

<sup>48</sup> Ibid, 15-17.

<sup>49</sup> Sea-Carriage of Goods Act 1904, No. 14 (Australia), superseded by Sea-Carriage of Goods Act 1924, No. 22 (Australia).

<sup>50</sup> Compare Shipping and Seamen Act, 1903, No. 96, § 293 (New Zealand), with the US Harter Act § 3; compare Shipping and Seamen Act, 1903, § 300(1) (a) with the Harter Act § 1; compare Shipping and Seamen Act, 1903, § 300(1) (b) with Harter Act § 2; compare Shipping and Seamen Act, 1903, § 300(2) with the Harter Act § 7.

<sup>51</sup> There were several significant differences between the Harter Act and the final Canadian legislation, the Water Carriage of Goods Act 1910, 9-10 Edw. 7, ch. 61 (Canada), superseded by Water Carriage of Goods Act,

1919.<sup>52</sup> Meanwhile, several jurisdictions were at least considering their Harter-like legislation.<sup>53</sup> In contrast, the international community had accomplished little towards uniformity of maritime law.<sup>54</sup> Consequently, this wave of unilateral legislation made shipowners face the prospect of conflicting and non-uniform domestic regulation in many of their most important markets in the 1920s.

Not only did the wave of unilateral legislation create a mandatory framework of carriers' liability,<sup>55</sup> but it also pioneered the age of international unification of the ocean transport regime. Litigation subjecting the hull interests to these conflicting pieces of legislation increased their incentives to support an international resolution of the problem.<sup>56</sup> Bennett notes that the UK made a concession before this legislative wave of cargo interests, and decided to work towards international uniformity on sea transport carriage.<sup>57</sup> Sturley also claims that the domestic legislation in the late 19<sup>th</sup> and early 20<sup>th</sup> century, accompanying the threat of more extensive unilaterally enacted legislation in the 1920s, turned out to be the principal impetus for the procurement of an international agreement.<sup>58</sup>

History has shown that the period of Harter-style domestic legislation marked the transition of changing approaches to unifying laws on bills of lading from unilateral legislation or private agreements to international agreements. In the short term, these countries passed different unilateral domestic regulations governing exoneration clauses in bills of lading; these unilateral laws increased the tension and conflicts among national laws in the cargo-claim cases for the vessel and the cargo interests. However, in the long run, this conflict of interest was an incentive to the vessel and the cargo groups to support an international regulation replacing the conflicting legislation.

---

1936, 1 Edw. 8, ch. 49 (Canada), codified as Carriage of Goods by Water Act, Can. Rev. Stat. ch. C-15 (1970). For example, § 5 of the Canadian Act of 1910 required a clause paramount in outbound bills of lading and prohibited choice-of-forum clauses purporting to oust or lessen the jurisdiction of any Canadian court at the port of loading. Sections 6 and 7 expanded the list of the carrier's statutory exceptions to include latent defects, fire, any reasonable deviation, strikes, and losses "arising without [the carrier's] actual fault or privity or without the fault or neglect of [the carrier's] agents, servants or employees."

<sup>52</sup> French Morocco, Code de Commerce Maritime, article 267 (French Morocco, 31 March 1919); Berlingieri (1921).

<sup>53</sup> Sturley (1991), pp.17-18 (mentioning that France, Netherlands, Spain, Denmark, Norway, Sweden, Finland, Iceland and South Africa were considering domestic legislation in line with the US Harter Act).

<sup>54</sup> Ibid, 15-18.

<sup>55</sup> Sturley (1990) (Volume 1), pp.50-150 (examining how the US Harter Act introduced a mandatory framework of carrier's liability into the seaborne carriage regime).

<sup>56</sup> Sturley (1991), p.18.

<sup>57</sup> Bennett (1914), pp. 4, 19 (as long as the UK shipowners were regulated in their home ports, uniform regulation was preferred where they did business under the comparable regulations of their foreign competitors).

<sup>58</sup> Sturley (1991), 10. See also Westbrook (1990), pp.77-85, 92-96.

### 3. The ILA, ICC, Private Participants and a Model Bill of Lading

In addition to the domestic efforts to establish uniformity of maritime law in the late 19<sup>th</sup> century, the international community also attempted to achieve unification through three other approaches. The International Law Association ('ILA')<sup>59</sup> devoted its attention to private law subjects with a heavy emphasis on maritime topics.<sup>60</sup> Its first scheme to achieve international uniformity for the transport law governing bills of lading was proposed at the Liverpool Conference of 1882.<sup>61</sup> This local conference merely involved private entities rather than governmental representatives, which made it significantly different from its counterpart negotiations in the 20<sup>th</sup> century.<sup>62</sup> The participants were Liverpool merchants, shipowners, underwriters and lawyers.<sup>63</sup> Its approach to uniformity was "a model bill of lading that would be available for voluntary adoption by [an] agreement between the shipper and the carrier".<sup>64</sup> This model bill of lading reflected a compromise between the cargo and the hull interests in that it amended the common law liability.<sup>65</sup> It produced some innovative concepts, such as "exemption of navigation", "due diligence" to make the vessel "seaworthy", and "package limitation".<sup>66</sup> Although this model never achieved general acceptance, it had some influence.<sup>67</sup> Several of the innovations were revived later in the Hague Rules (1921),<sup>68</sup> and thus the compromise between the cargo and the vessel interests was embodied and embedded in the Hague Rules.

In its second attempt to achieve uniformity in the intentional carriage of goods by sea regimes, the ILA temporarily took a different approach. In lieu of the detailed model bill of

---

<sup>59</sup> The International Law Association (ILA) was founded in 1873 and initially called the Association for the Reform and Codification of the Law of Nations, changing its title to the current name in 1895. See ILA, Report of the 17<sup>th</sup> Conference 282-285 (Brussels Conference 1895).

<sup>60</sup> ILA, Report of the 30<sup>th</sup> Conference ('Hague Conference 1921'), vii, cited in Sturley (1990) (Volume 1), pp.50-150.

<sup>61</sup> Because the uniform draft of bills of lading was discussed during the ensuing ILA conference at the Hamburg Conference of 1885 and the London Conference of 1887, the Liverpool Conference is regarded as part of international efforts towards uniformity. See CMI, *Travaux Préparatoires of the Hague Rules and of the Hague-Visby Rules*, [http://www.comitemaritime.org/Uploads/Publications/Travaux Préparatoires of the Hague Rules and of the Hague-Visby Rules.pdf](http://www.comitemaritime.org/Uploads/Publications/Travaux%20Préparatoires%20of%20the%20Hague%20Rules%20and%20of%20the%20Hague-Visby%20Rules.pdf), 16.

<sup>62</sup> Sturley (1991), pp.6-7.

<sup>63</sup> Ibid.

<sup>64</sup> The model bills of lading were also known as the 'Conference Form'. See ILA, Report of the 10<sup>th</sup> Conference 75, 78-80, 86 (Liverpool Conference 1882 /'Liverpool Conf. Rep. '), reprinted in Sturley, *The Legislative History of the Carriage of Goods by Sea Act and the Travaux Préparatoires of the Hague Rules* (Volume 2), 32-33, 36-38, 44.

<sup>65</sup> Sturley (1991), p.7.

<sup>66</sup> Ibid.

<sup>67</sup> See CMI (1979), p.16.

<sup>68</sup> Ibid, 16.

lading, the Association proposed a set of rules - the “Hamburg Rules of Affreightment” – which contractual parties could voluntarily incorporate into their bills of lading.<sup>69</sup> However, these rules were adjudged to be an unworkable compromise between the cargo and the vessel interests by almost all related private entrepreneurs.<sup>70</sup> Thus, these rules were rescinded at the London Conference of 1887.<sup>71</sup> Hence, history shows that uniformity can be achieved only if it is built on a workable compromise.

Thirdly, the foundation of the Comité Maritime International (CMI)<sup>72</sup> had indirect but profound importance for the uniformity of the carriage of goods by sea regimes. In 1897, several national ‘Associations of Maritime Law’ joined together to establish the CMI.<sup>73</sup> This was the first international organisation concerned exclusively with maritime law and related commercial practices.<sup>74</sup> First, the CMI changed the approach to uniformity from modelling private agreements to diplomatic negotiation. It persuaded the Belgian government to initiate the first Diplomatic Conference on Maritime Law, held in Brussels in 1905.<sup>75</sup> It is apparent that the participants in this and later conferences were no longer private entrepreneurs but diplomatic representatives. In addition, both the CMI and the Diplomatic Conference on Maritime Law promoted the later passage of the Hague Rules.<sup>76</sup> It is worthy of note that the Hague and Visby Rules were drafted and negotiated by private entities or their associations’ representatives on substantial matters, and then these two sets of rules were finalised at the diplomatic conferences and were available for signing by political delegates, which enhanced their authority in contracting countries.

In May 1921, the ILA’s Maritime Law Committee met at the London Conference to formulate uniform model rules based on the Canadian Act governing sea bills of lading.<sup>77</sup> The committee appointed to prepare the draft rules contained representatives of governments, as well as delegates from private commercial sectors representing commercial interest

---

<sup>69</sup> Sturley (1991), p.8. ILA, Report of the 12th Conference (‘Hamburg Conference 1885’), 165-168 reprinted in Sturley (1990) (Volume 2), 122-125. CMI (1979), p.16.

<sup>70</sup> Ibid, 8 (stating that only a few German companies adopted the rules).

<sup>71</sup> Ibid.

<sup>72</sup> CMI (2013).

<sup>73</sup> Ibid. The Comité Maritime International (CMI) had its first conference in June 1897.

<sup>74</sup> Ibid.

<sup>75</sup> Sturley (1991), p.9. Lilar and van den Bosch, (1973), pp.16, 73.

<sup>76</sup> Ibid, pp.9-10.

<sup>77</sup> Ibid, 20. See, e.g. ‘Hague Conf. Rep.’, 38 (Sir Norman Hill), reprinted in Sturley (1990) (Volume 1), p.144. Cf. Report of the Maritime Law Commission on Bills of Lading, xxxix, reprinted in Sturley (100) (Volume 1), p.94.

sections instead of countries.<sup>78</sup> These were carriers, shippers, bankers, underwriters and their respective associations.<sup>79</sup> For instance, the two principal members were Sir Norman Hill, Secretary of the Liverpool Steam Ship Owners' Association (representing British shipowner interests), and James McConechy, Secretary of the Bill of Lading Committee of the Manchester Chamber of Commerce and the Manchester Association of Importers and Exporters (representing cargo interests).<sup>80</sup> They met to draft compromise international rules. After the finishing of the draft, the compromise rules were discussed at a meeting of the International Chamber of Commerce (ICC) in London at the end of June 1921.<sup>81</sup> Then, delegates to the ICC conference generally approved the ILA's draft.<sup>82</sup>

#### **4. Reflections on the Age Stimulating Successor Rules: Containerisation (1950- ) and 'Package'**

In the part, successor rules refer to the Visby Rules and the Hamburg and Rotterdam Rules. The Hague Rules had not defined 'package', possibly because this term appeared to be clearly understood in industrial practice at the time of drafting. However, shipping practice is being changed continually. By the 1920s, goods were not always transported within the same packages which had been familiar in 1924 when the Hague Rules were first adopted.<sup>83</sup> However, by the late 1950s, the container revolution was taking place, and this started changing marine logistical reality.<sup>84</sup> In the breakdown of seaborne trade, approximately one third of liquid bulk cargoes and two thirds of dry cargoes<sup>85</sup> have been carried in containers since 1970.<sup>86</sup>

Container ships revolutionised the transport system for industrial goods.<sup>87</sup> Improved rail and road infrastructure enhanced the development of combined inland and maritime transport.

---

<sup>78</sup> Sturley (1991), pp.20, 26. See Hague Conference Report, cxiii-cxix, reprinted in *ibid* (Volume 1), 168-174 (listing the delegates and their occupations).

<sup>79</sup> *Ibid*.

<sup>80</sup> *Ibid*, p.94 (listing the delegates and their occupations).

<sup>81</sup> Sturley (1991), p. 21. See more in Sturley (1990) (Volume 3), p.519 and (Volume 1), p.94.

<sup>82</sup> Frederick (1991), p.87.

<sup>83</sup> Sturley et al, (2010), pp.10, 160, paragraphs 1.036, 5.222 (see Chapter I 'Introduction and Historical Background to the Rotterdam Rules', and Chapter V: 'Carrier's Liability').

<sup>84</sup> Bell (2010), pp. 58-59 (highlighting that containerisation is of importance for the shipping industry).

<sup>85</sup> UNCTAD (2012), p.26, Figure 1.2. International seaborne trade, by cargo type, selected years (Millions of tons loaded). For 2006–2012, the breakdown by type of dry cargo is based on Clarkson Research Services' Shipping Review & Outlook, various issues. Data for 2012 are based on a forecast by Clarkson Research Services in Shipping Review & Outlook, spring 2012. See also Haralambides (2004), p.4 (concluding that the container changed liner shipping and sea carriage in general).

<sup>86</sup> OECD (2001), p.4.

<sup>87</sup> Grammenos (2010).

However, the combined modes of transport necessitated separate contracts of carriage. Goods were moved by one or more inland carriers from an inland point to a port, then by ocean carrier, and finally by other land carriers to an inland destination; thus the freight was also subjected to at least six - and up to twenty - successive handling or sorting operations at different stages of the movement; shippers were charged separate transport rates for each portion of this movement.<sup>88</sup> The separately combined transport was not effectively integrated until the 1950s.<sup>89</sup> A significant step in unifying different transport modes into a comprehensive one was achieved when the container emerged. According to the Organization for Economic Co-operation and Development (OECD) statistics, sea container transport kept increasing in all OECD countries except in Australia, Canada and Belgium, where it fell sharply from the 1970s to about 1996, but started to increase again after that period.<sup>90</sup>

Through the use of containers, unloading and loading of cargoes was simplified. The freight costs of loading and unloading a container were far less than those for individual packages.<sup>91</sup> The container revolution eliminated the cost of unloading freight from rail cars or trucks on trans-shipment to a ship.<sup>92</sup> Daudin estimated that containerisation led to a decrease in transport costs of between 5 and 10 percent of the goods' values.<sup>93</sup> Schmelzer and Peavy point out that the time for loading and unloading was also shortened from three days to approximately eight hours.<sup>94</sup> In short, freight rates and loading times were both sharply reduced.

In consequence, courts around the world have spent decades in ascertaining the new meaning of the word "package" in the field of containerisation.<sup>95</sup> The principal puzzle has been whether a sealed container constitutes a single package under the un-amended Hague Rules. To bring the sea transport legal regime into line with commercial practice, its successors (Visby,<sup>96</sup> Hamburg<sup>97</sup> and Rotterdam Rules<sup>98</sup>) include a "container" clause.<sup>99</sup> Container

---

<sup>88</sup> Schmelzer (1970).

<sup>89</sup> Donovan (2000), pp. 315-317.

<sup>90</sup> OECD database on Statistics on Transport, Sea Container Transport (no date).

<sup>91</sup> Nicholas (2010), pp. 113-117, paragraph 6.6 (stating that the containerisation of cargo allows for ease of transit and reduced freight rates).

<sup>92</sup> Schmelzer (1970), p.208.

<sup>93</sup> Daudin, G. (2003), pp.411, 425.

<sup>94</sup> Schmelzer (1970), p. 208.

<sup>95</sup> Huybrechts (2010), p.119 (looking at the historic genesis of the rules on "package limitation").

<sup>96</sup> Visby Rules Article 4.5(c).

<sup>97</sup> Hamburg Rules Article 6 'Limits of Liability'.

<sup>98</sup> Rotterdam Rules Articles 59 and 60.

<sup>99</sup> See also Sturley (2010), pp.160-162, paragraphs 5.221-5.226.

transport has continued to expand since 1990,<sup>100</sup> with a minor decrease in 2009 during the economic crisis but a rebound in 2010.<sup>101</sup>

## **5. At the Dawn of the Next Technological Revolution: Legal Analysis of the Rotterdam Rules**

### ***5.1 Digitalisation and Electronic Commerce***

Another new shipping reality is digitalization and electronic commerce. Trade has been impacted by digitalization. The world is at the dawn of the next technological revolution, bearing transformational implications for all. Digitalization will create opportunities for entrepreneurs and businesses, and bring benefits to consumers; the global growth of e-commerce is a good example of this. However, many existing practices will be disrupted, such as paper-based shipping documents. Nevertheless, shipping is ‘notorious’ for its resistance to new technologies.

Electronic transport documents have been used in shipping practice since 1970, particularly in liner carriage where transport documents are not always issued.<sup>102</sup> The legal question is whether electronic documents can work as equivalent counterparts of paper-based documents as to sea transport.<sup>103</sup> In order to accommodate today’s maritime e-commerce, the UNCITRAL sought for the assistance of a non-governmental organisation -- the CMI -- who drafted the Rotterdam Rules, which try to incorporate ‘electronic transport records’. As seen, the UN has a tradition to work with other non-UN organisations.

The Rotterdam Rules have foreseen the impact of electronic documents in maritime trade and provided that ‘electronic transport records’<sup>104</sup> work equivalently as their paper transport documents.<sup>105</sup> However, today’s maritime e-commerce has not a mature technology yet.<sup>106</sup>

---

<sup>100</sup> UNCTAD (2012), pp. 21-23.

<sup>101</sup> Ibid, 22, Figure 1.5 ‘Global container trade, 1990-2011’. Source: Drewry Shipping Consultants, Container Market Review and Forecast 2008/09; Clarkson Research Services, Container Intelligence Monthly, May 2011. Note: The data for 2011 were obtained by applying growth rates forecasted by Clarkson Research Services in Container Intelligence Monthly, May 2011.

<sup>102</sup> Thomas (2010), pp.284-294.

<sup>103</sup> See more in Wilson (2010), pp.165-171.

<sup>104</sup> See Chapter 3 ‘Electronic Transport Records’ in *the Rotterdam Rules*. Berlingieri (2010); Thomas (2010); Sturley (2010); Baatz et al (2009).

<sup>105</sup> Alba (2009), pp.803, 816 (referring to the Comité Maritime International Rules for Electronic Bills of Lading and noting that the electronic equivalence approach is a developed but problematic solution addressing the existing needs of electronic commerce). CMI, Rules for Electronic Bills of Lading.

The technical requirement<sup>107</sup> for the incorporation of electronic equivalents under the Rotterdam Rules can be potentially resolved by blockchain. The singularity (uniqueness) of transport documents is commercially required and expected by law, because of their roles as documents of title. Even though the singularity has not been well achieved under the prospective technology in existing electronic systems, such as Bolero, ESS-Databridge,<sup>TM</sup> Electronic data exchange systems and the Atlantic Container Line data-freight system,<sup>108</sup>

Although shipping has traditionally been resistant to technological advances, this is likely to change drastically in the future. Blockchain is a distributed ledger technology which enables peer-to-peer transactions which are securely recorded, because in a ledger, in de-centralised multiple locations. According to Maersk, Lloyd's List and UNCTAD, there have been some initiatives in the use of blockchain in shipping: First, a Maersk-IBM intend to establish a joint venture (which remains subject to the receipt of regulatory approvals) which will develop an open trade digitalization platform, deploying blockchain and other cloud-based, open-source technologies. Second, a shipping consortium consisting of Hyundai Merchant Marine and other members conducted a *pilot* voyage in September 2017 which has applied blockchain to secure paperless processes for shipment booking and cargo delivery.<sup>109</sup> Third, several smart contract<sup>110</sup> prototypes have been launched which involve digitalizing electronic bills of lading and other trade documents, such as CargoDocs under ESS-DOCS, and Cargo X.

The author attended the 14th IISTL Colloquium on New Technologies and Shipping/Trade Law and had informal conversations with representatives from the shipping industry and relevant associations or bodies: it seems that they have not experimented Blockchain in their business; an exceptional case is bunker supply contract sometimes involves 'smart contract' and blockchain. Moreover, Professor M Sturley, as a draftsman of the RR, argues that the RR have already envisaged the technological advance and e-commerce. However, the author examines Chapter 3 of the RR and finds the inconsistency of categories of paper-based

---

<sup>106</sup> See more about the implications of electronic commerce in the shipping industry, in Wilson (2010), pp. 165-171 (illustrating the electronic bills of lading in the Atlantic container liner data freight system, the Electronic Data Interchange ('EDI') system and the Bolero system).

<sup>107</sup> Diamond (2009), p.536.

<sup>108</sup> See Wilson (2010), pp.165-171. Thomas (2010), p. 292.

<sup>109</sup> Lloyd's List (2017).

<sup>110</sup> Smart contracts are contracts in the form of a computer programme run within blockchain which automate the implementation of the terms and conditions of any contractual agreements between parties.

transport records with their electronic records.<sup>111</sup> The RR provide three kinds of paper-based shipping documents, but only two kinds of electronic counterparts.

Thanks to the positive results achieved in those blockchain initiatives, blockchain has demonstrated its *potential*<sup>112</sup> to be used in the shipping industry to accomplish the singularity of paperless electronic shipping documents.<sup>113</sup> Nevertheless, the potential utilisation of blockchain technology will bring about further challenges. One new issue is lack of uniform standards for and interoperability between various initiatives given that many blockchain initiatives are flourishing. Some observers point out that “it would be detrimental for the shipping industry if the different factions and initiatives compete head on trying to make their specific blockchain technology choice the de facto standard for the industry”.<sup>114</sup> Another concern relates to new security challenges. The use of blockchain may help to solve some security problems but may also lead to new potentially more complicated security challenges, since some methods can possibly still be used to hack into a maritime transaction blockchain.<sup>115</sup> Accordingly, the UN’s approach to the uniformity of carriage of goods by sea regimes needs to reconsider the pace of updating static legal rules and how to keep the rules appropriately evolving with the shipping developments.

### ***5.2 Multimodal Transport: Are the Rotterdam Rules the Cure?***

The container became widely used from the 1970s.<sup>116</sup> Due to dry cargoes being mainly containerised, large sea carriers extended their business to inland-route transport to earn additional freight.<sup>117</sup> Consequently, the traditional ocean carriers started to become multimodal operators.<sup>118</sup> They stepped into the air, rail and road transport business because of commercial interests in warehousing, consolidating and distributing freight.<sup>119</sup> The commercial motivation prompted a carrier to fulfil the transport chain from the seller’s warehouse to the buyer’s warehouse.<sup>120</sup> Whether or not they are directly involved as multimodal carriers, sea carriers are likely to be agents for multimodal transport operators

---

<sup>111</sup> Zhao (2016), pp. 1-27.

<sup>112</sup> Emphasis added by the author.

<sup>113</sup> UNCTAD (2018), pp.87-89.

<sup>114</sup> Joc.com, Blockchain success in shipping hinges on standardisation, 27 March 2018.

<sup>115</sup> Marine Electronics and Communications, Blockchain is not the silver bullet for cybersecurity, 9 March 2018.

<sup>116</sup> OECD Doc.DSTI/DOT/MTC(2001)3, (11 January 2001), 4.

<sup>117</sup> Bauchet (1998), p.191. Faria, (2008), p.304.

<sup>118</sup> Ibid.

<sup>119</sup> Ibid, 305.

<sup>120</sup> Bauchet (1998) (mentioning Conference on Trade and Development, Geneva, Switzerland, 12-30 November 1979, United Nations Conference on a Convention on International Multimodal Transport, part I (B), art. 1(2), U.N. Doc.TD/MT/CONF/17.201.,141).

(MTO).<sup>121</sup> Under the auspices of UNCTAD rather than UNCITRAL, the United Nations Convention on International Multimodal Transport of Goods was signed in 1980.<sup>122</sup> This convention dealt with the conflicts between the unimodal-governing carriage conventions, but it seems that it will not gain the minimum number of votes for ratification to come into effect globally.<sup>123</sup> The Rotterdam Rules also extend the scope of application to cover multimodal transport<sup>124</sup> which is governed by a number of mandatory rules of other transport modes.

Related conventions provided various limitations of liability and defences for carriers of modes of rail,<sup>125</sup> air<sup>126</sup> and motor truck<sup>127</sup> transport.<sup>128</sup> Diamond argues that the Rotterdam Rules merely absolved legal conflicts among these conventions of different modes of carriage on multimodal transport at a limited extent.<sup>129</sup> Moreover, existing conventions of other transport modes had not been real uniform rules through global ratification.<sup>130</sup> Consequently, the Rotterdam Rules were too ambitious to regulate multimodal transport aspects. This would prevent the Rules from being widely ratified as global, uniform rules.

### 5.2.1 Article 82<sup>131</sup> of the RR

---

<sup>121</sup> Ibid.

<sup>122</sup> UN, the United Nations Convention on International Multimodal Transport of Goods, Geneva, 24 May 1980, Doc.TD/MT/CONF/16. Wilson (2010), pp.253-259 (examining that the multimodal transport and the UN Multimodal Convention 1980).

<sup>123</sup> Ibid.

<sup>124</sup> The Rotterdam Rules are entitled as ‘the United Convention on Contracts for International Carriage of Goods Wholly or Partly by Sea’.

<sup>125</sup> Convention Concerning the Carriage of Goods by Rail (‘CIM’), 25 October 1952, 241 U.N.T.S. 336; The initials CIM stand for its French name ‘Convention Internationale concernant le transport des Marchandises par chemin de fer’. Retrieved 17 June 2018, <http://www.jus.uio.no/lm/cim.rail.carriage.contract.uniform.rules.19xx/doc.html>. The CIM is modified and incorporated as Appendix 2 to the COTIF from May 1999. International Convention Concerning the Carriage of Goods by Rail (‘COTIF’), 7 February 1970, 1101 U.N.T.S. 226.

<sup>126</sup> Convention for the Unification of Certain Rules Relating to International Carriage by Air (the ‘Warsaw Convention’), 12 October 1929, 49 Stat. 3000, 137 L.N.T.S. 1. The original Warsaw Convention of 1929 was first amended in Hague in 1955, and then in Montreal in 1975. In 1999, a new Convention, known as the ‘Montreal Convention’, on international air carriage was concluded in Montreal and on 28 June 2004, came into force in the European Union. See Chuah (2009), pp.367-371.

<sup>127</sup> UN, Convention on the Contract for the International Carriage of Goods by Road (‘CMR’, abbreviated from the French ‘*Convention relative au contrat de transport international des marchandises par route*’), 19 May 1956, 399 U.N.T.S. 189, amended by the 1978 Protocol. Chuah (2009), pp.379-388.

<sup>128</sup> E.g. carriers’ liability for delay: Warsaw Convention Article 19 (stating that under the Warsaw Convention the carrier shall be liable for delay in the air transportation of passengers, baggage, or goods); the CMR for truck transport, Article 17.2. See also the limitations of liability of carriers are different in related conventions. See more conflicts in Ulfbeck, V. (2010), pp34-37.

<sup>129</sup> Diamond (2008) (analysing Articles 82 and 26 of the Rotterdam Rules). See more in

<sup>130</sup> Chuah (2009), pp.367-401.

<sup>131</sup> Rotterdam Rules Article 82 (*International conventions governing the carriage of goods by other modes of transport*).

Started by the statement that “[n]othing in this Convention affects the application of any of the following international conventions...,” Article 82 shows that the RR employ the network-liability approach to dealing with potential conflicts between carriage conventions. This Article is part of Chapter 17 of the RR (“Matters not governed by this Convention”), which implies that the circumstances described within Article 82 are outside the scope of application of the Convention (RR).<sup>132</sup>

Subparagraph (a) aims to prevent the RR from prevailing over any convention on the carriage of goods by air “to the extent that such convention according to its terms applies to any part of the contract of carriage”.<sup>133</sup> Even though the Montreal Convention does not govern any period of “carriage by land, by sea or by inland waterway outside an airport”, two exceptions fall within the Montreal Convention’s coverage.<sup>134</sup> First, if carriage takes place “in the performance of a contract for carriage by air, for the purpose of loading, delivery or trans-shipment, any damage is presumed, subject to proof to the contrary, to have been the result of an event which took place during air transport”; second, if a contract of carriage stipulates that goods would be carried by air, and a carrier arbitrarily changes to another transport mode (e.g. by sea) without the consent of the consignor.<sup>135</sup> Thus, under these two circumstances, the Montreal Convention can regulate carriage by sea. De Wit<sup>136</sup> and van der Ziel<sup>137</sup> claim that Article 82 (a) is sufficient to address the conflicts between sea and air legs. Nevertheless, the combination of carriage by sea and by air is not commonly used in commercial reality.

Despite of the fact that the RR is not applicable in the two cases mentioned above,<sup>138</sup> Diamond points out/pinpoints that the RR Article 82 (a) does not suffice to harmonise other conflicts with air transport conventions, if the place of damage or loss cannot be proved.<sup>139</sup> For instance, suppose there is a multimodal transport bill of lading, including (international) air and sea legs; some goods are carried by the modes agreed by the carrier and the consignee (not the second circumstance mentioned above), and the goods are damaged; however, the place of damage is not identified (if the place is known, it is the first circumstance mentioned

---

<sup>132</sup> Cf. Sturley (2010), pp.59-75, paragraphs 4.013-4.045 (addressing the complexity of conflicts). Berlingieri (2009), p.54.

<sup>133</sup> Rotterdam Rules Article 82 (a). See also De Wit (2010), pp.100-107, paragraphs 5.53-5.

<sup>134</sup> Montreal Convention Articles 38 and 18.4.

<sup>135</sup> Ibid, Article 18.4.

<sup>136</sup> See also De Wit (2010), 100-101, paragraphs 5.53-5.58.

<sup>137</sup> Cf. Sturley (2010), pp.72-73, paragraphs 4.034-4.037

<sup>138</sup> See also De Wit (2010), pp.100-107, paragraphs 5.53-5.73.

<sup>139</sup> Diamond (2009), p. 454.

above).<sup>140</sup> Since the place of damage is unknown, it is debatable whether the RR are applicable or not.

Similarly, Article 82's subparagraphs (b), (c) and (d) prevent the RR to a limited extent from conflicting with any existing *convention* which applies for governing the carriage of goods by road,<sup>141</sup> rail<sup>142</sup> and inland waterways.<sup>143</sup> Potential conflicts would arise between the RR and a broad range of sea-and-road transport *instruments*;<sup>144</sup> the CMR is one of these and applies compulsorily.<sup>145</sup> Under Subparagraph (b),<sup>146</sup> the RR merely scratch the surface of the problem of conflicts between the sea and the road transport conventions (e.g. the CMR Article 2) for a roll-on and roll-off ('ro-ro') carriage, in which the goods carried "remain loaded on a road cargo vehicle carried on board a ship". Therefore, Article 82 (b) will prevent the RR from prevailing over the CMR, if only "goods ... remain loaded on a road cargo vehicle carried on board a ship". That is, in the event of a roll-on and roll-off contract of carriage, the RR would not conflict with the CMR which apply to the whole<sup>147</sup> carriage. Nevertheless, other potential conflicts still remain/stand under this subparagraph as to carriage of road and sea.

Likewise, the same problem also applies to subsections (c)<sup>148</sup> and (d).<sup>149</sup> Under Subparagraph (c), the RR come into play as the "supplement to the carriage by rail", without a clear definition of "supplement". Under Subparagraph (d) on inland waterways carriage, the RR are prevailed over in the very limited case of carriage "without trans-shipment both by inland

---

<sup>140</sup> Ibid.

<sup>141</sup> CMR Article 41.1 states "any stipulation which would directly or indirectly derogate from the provisions of this Convention shall be null and void". *Datec Electronics v United Parcels Services* [2007] UKHL 23. See Ulfbeck (2010), pp.43-76

<sup>142</sup> CIM Articles 1.3 (governing a single contract including international road and inland waterway carriage), Article 5 (stating that the mandatory rules cannot be contracted out of or derogated from unless as otherwise provided for in the Rules themselves), Article 23.1

<sup>143</sup> Sturley et al (2010), pp.71-75, paragraphs 4.031-4.045, pp.169-176.; paragraphs 5.245-5.259; the UNCITRAL 20<sup>th</sup> Session Report, paragraphs 163-166.

<sup>144</sup> *Thermo Engineers v. Ferrymaters Ltd* [1981] 1 W.L.R.

<sup>145</sup> CMR Article 2.1 provides: "Where the vehicle containing the goods is carried over part of the journey by sea, rail, inland waterways or air, and, except where the provisions of article 14 are applicable, *the goods are not unloaded from the vehicle*, this Convention [CMR] shall nevertheless apply to the *whole* of the carriage." CMR Article 41 states "1. Subject to the provisions of article 40, any stipulation which would directly or indirectly derogate from the provisions of this Convention shall be null and void. The nullity of such a stipulation shall not involve the nullity of the other provisions of the contract." E.g. *T Comedy v. Easy Managed Transport* [2007] EWHC 611 (holding that the a general lien clause in the truck carriage contract would derogate from the consignees' right to delivery on payment of the charges shown to be due on the consignment note (Article 13.1) would be null and void under Article 41 of the CMR).

<sup>146</sup> See also De Wit (2010), pp. 100-107, paragraphs 5.53-5.73.

<sup>147</sup> CMR Article 2.

<sup>148</sup> De Wit (2010), pp. 100-107, paragraphs 5.53-5.73.

<sup>149</sup> De Wit, *ibid.* See also Sturley (2010), p.73, paragraph 4.038.

waterways and sea”;<sup>150</sup> however, in this case, the Budapest Convention (CMNI) is possibly not applicable.<sup>151</sup> Consequently, there is a possibility that an inland waterway carriage without trans-shipment both by inland waterways and sea is governed by neither the RR, nor the Budapest Convention.

Therefore, Article 82 has not addressed very well conflicts between conventions on different modes of transport in cases of multimodal carriage. These problematic provisions cause legal uncertainties. To address the conflicts which arise from litigation over allocated (because unprovable) damage or loss, there are two options: first, to *admit* that *both* the RR and a potential conflicting carriage convention are applicable,<sup>152</sup> so that either puts Article 82 within another chapter rather than Chapter 17 (“matters not governed by this Convention [RR]”), or maintain that Article 82 be part of Chapter 17 of the RR in addition to amending the title of Chapter 17 (e.g. to “Matters suspending the Convention’s application”); second, to clearly state which convention prevails over the others, or to set out a uniform<sup>153</sup> level of liability in the event of unallocated damage, loss or delay.

### 5.2.2 Article 26<sup>154</sup> of the RR

Article 26 aims to establish a ‘limited network system’<sup>155</sup> on carriers’ liability with regard to multimodal transport, in order to reduce the conflicts between the RR and other international instruments. For the application of this Article, it must be proved where loss, damage, or delay occurred.<sup>156</sup> However, if it cannot be proved where the event (loss, damage, or delay caused) occurred, or if the damage was caused during one leg and continued during following legs, Article 26 is not applicable. Thus, if a case falls outside this Article’s ambit, Article 26 itself cannot avoid the conflicts between compulsory rules of different modes of transport.<sup>157</sup>

---

<sup>150</sup> Rotterdam Rules Article 82(d).

<sup>151</sup> CMNI Article 2.2.

<sup>152</sup> Cf. Honka, (2010), pp. 349-354.

<sup>153</sup> Si, Y., & Guo, P. (2010), p.259.

<sup>154</sup> Rotterdam Rules Article 26. See more in De Wit (2010).

<sup>155</sup> A pure network system makes all the unimodal rules applicable directly between the carrier and the shipper as to each mode of transport. A uniform system makes the same rules apply between the carrier and the shipper to the whole multimodal transport with no regard to the unimodal rules applicable to individual legs of the multimodal transport. In a limited network system which mixes uniform and network systems, the mandatory rules which apply between the carrier and the shipper vary according to and are based on the underlying unimodal rules applicable to a related mode of transport, while other issues remain regulated under the RR for the whole multimodal transport. See Uffe (2010), pp.143-145.

<sup>156</sup> Uffe (2010), p.146.

<sup>157</sup> Diamond (2009), p 456.

Moreover, Article 26 has not dealt with the relationships between the RR and mandatory national laws which conflict with the RR. This is because the words “international instruments” (Article 26) do not cover national laws, so Article 26 does not apply. An earlier draft<sup>158</sup> of UNCITRAL will absolve this problem.

Furthermore, the use of the words “international<sup>159</sup> instrument”<sup>160</sup> in Article 26 implies regulation of regional economic organisations, and thus they have a broader connotation than the word “convention” (between nations) in Article 82. It is worth noting that Article 26 does not circumscribe the international instruments like those “in force at the time this Convention [i.e. the RR] comes into force” (Article 82); rather it embraces instruments activated “at the time of such loss, damage or event or circumstance causing delay”.<sup>161</sup> As we have seen, the RR might be overridden by certain future international instruments. Thus, it must be borne in mind that an uncertain number of potential instruments could lead to lack of predictability on a worldwide level, and increasing legal costs.

Therefore, in the three categories of circumstances mentioned above, it is difficult to predict how potential conflicts among different transport modes can be resolved. These conflicts could also promote legal uncertainty concerning similar cargo litigation in different jurisdictions, and accompanying increased legal costs. In order to handle the conflicts between the RR and related national laws, the wording “international instrument, at the time of such loss, damage or ... delay” is needed to be replaced and ensure that merely “international conventions” “in force at the time this Convention [i.e. the RR] comes into force” prevailing over the RR. This new extension within Article 26 will regulate the relationships between the RR and national instruments. (Namely, the RR could prevail over the national instruments).

---

<sup>158</sup> In order to cater for this need, UNCITRAL Working Group III drafted a provision, including mandatory national laws, into Article 26, so that “it specially identified the law in question, that the law applied to the loss or damage in question and that the damage occurred in that state’s territory.” Yet, such a draft provision was left out in the final version.

<sup>159</sup> The limited network system on liability applies to the relevant provisions only of international instruments, such as EU regulations; see Uffe (2010), p.147. See also Sturley (2010), pp. 59-75, paragraph 4.022; UNCITRAL (1987), Doc.A/CN.9/642, 20<sup>th</sup> Session Report, paragraphs 163-166.

<sup>160</sup> The wording of Article 26 is “international instrument” instead of international ‘convention’, which refers to a broader range of regulations. See Sturley et al (2010), multimodal aspects, pp.59-75, paragraph 4.023; the UNCITRAL 21<sup>st</sup> Session Report, paragraph 84. Rasmussen (2010), p.147.

<sup>161</sup> Rotterdam Rules Article 26. van der Ziel (2009), p.989.

## 6. Concluding Remarks on the Prospect of the Rotterdam Rules

In this research, the author has conducted historical and legal analysis on the attempts to unifying carriage of goods by sea rules, in order to shed light on *Lex Maritima* and the prospect of the latest convention attempting to unifying the law governing carriage of goods by sea. Moreover, the concluding section probes into the attitudes, which impact on the adoption of the Rotterdam Rules, of the shipping powers and some countries, are explored to add further information to the previous sections:

In the Netherlands, two bills concerning the RR have presented at the Parliament. The first would give four separate components of the Kingdom of the Netherlands – the Netherlands, Aruba, Curacao and Sint Maarten – the power to ratify the RR and denounce the version of the Hague-Visby Rules to which they are party. The second would remove the Hague-Visby provisions in its Civil Code and replace them with the RR which would be incorporated into the Code by reference. Baughen considers that these two bills are expected to pass soon but this will not lead to an immediate replacement of the Hague-Visby Rules with the RR, and thus, the recent Dutch legislative move might constitute ‘a small step on the road to Rotterdam’.<sup>162</sup>

It is worthwhile noting that most countries, including the Netherlands, are waiting to see whether or not other countries - mainly influential countries - ratify the RR before taking action. For instance, the explanatory notes to both Dutch bills provide that it will be for the government to decide on the date of ratification and entry into force and this may depend on ratification of the RR by neighbouring countries, such as Germany and France and major trading parties such as China and the US – no mention is made of the UK.

Turning to the UK, the government is being overwhelmed by Brexit negotiations and could not cope with other matters, such as the ratification of the RR. Prime Minister published a key white paper concerning Brexit on 12 July 2018, which is called ‘Chequers plan’ which seems her only plan. Nevertheless, this plan has been publically ‘disliked’ by all European leaders.<sup>163</sup> In short, the UK government is overwhelmed, if not paralysed, by the Brexit negotiations.

---

<sup>162</sup> Baughen (2018).

<sup>163</sup> UK Government (2018)

Scandinavian countries are relatively ‘more friendly’ to the RR, and have had an initiative to ratify them since the year Spain did so. However, after a while, they decided to wait to see what other European neighbours and the USA do first. By this September, they still maintain this attitude.

Last, but by no means least, is the USA seems facing domestic objection from its port industry. The US port industry was persuaded by a lawyer and then ‘believed’ ratifying the RR would harm their interests, so this industry lobbied the Congress not to adopt the RR.<sup>164</sup>

In conclusion, this research has examined *Lex Maritima* by taking a close look at carriage of goods by sea. The historical and legal analysis of the attempts to unifying carriage of goods by sea rules has demonstrated that this is an odyssey. Further analysis of the attitudes of the shipping and trade countries towards the Rotterdam Rules indicate that this Convention will not accomplish legal uniformity of carriage of goods by sea, because the Rotterdam Rules will not be widely adopted, at least not in the near future.

---

<sup>164</sup> Information based on a private conversation with a US delegate of the RR negotiations. See details in Sturley (2016)

## References

- Armstrong, J. (1991). Conferences in British Nineteenth-century Coastal Shipping, *Mariner's Mirror*, 77, 55-65.
- Alba, M. (2009). The Use of Electronic Records as Collateral in the Rotterdam Rules: The Future Solutions for Present Needs, *Uniform Law Review/ Revue de Droit Uniformie*, XIV(4), pp. 801–829.
- Baatz, Y., C. DeBattista, F.Lorenzon, A. Serdy, H. Staniland, and M. Tsimplis. (2009) *The Rotterdam Rules: A Practical Annotation*. London, the UK: Informa.
- Berlingieri, F. (1921). Notes on the Hague Rules, reprinted in Sturley, M.F. (1990), *The Legislative History of the Carriage of Goods by Sea Act and the Travaux Préparatoires of the Hague Rules* (Volume 3) (Fred B. Rothman and Company).
- Berlingieri, F. (2009). A Comparative Analysis of the Hague-Visby Rules, the Hamburg Rules and the Rotterdam Rules. Paper delivered at the General Assembly of the AMD. Retrieved 30 November 2018, [http://www.uncitral.org/pdf/english/workinggroups/wg\\_3/Berlingieri\\_paper\\_comparing\\_RR\\_Hamb\\_HVR.pdf](http://www.uncitral.org/pdf/english/workinggroups/wg_3/Berlingieri_paper_comparing_RR_Hamb_HVR.pdf)
- Berlingieri, F. (2010). Revisiting the Rotterdam Rules, *Lloyd's Maritime and Commercial Law Quarterly*, 35(4), pp. 583–639.
- Bennett, W. P. (1914). *The History and Present Position of the Bill of Lading As a Document of Title to Goods: being the Yorke Prize Essay for the Year 1913*. Cambridge, the UK: Cambridge University Press.
- Brussels Convention for the Unification of Certain Rules of Law Relating to Bills of Lading (the 'Hague Rules'), 25 August 1924, 51 Stat. 233, T.S. No. 931, 120 L.N.T.S. 155, 1931 Gt. Brit. T.S. No. 17.
- Boyce, G. H. (1995). *Information, Mediation and Institutional Development: The Rise of Large-scale Enterprise in British Shipping, 1870-1919*. Manchester, the UK: Manchester University Press.
- Burley, K. (1968). *British Shipping and Australia, 1920-1939*. Cambridge, the UK: Cambridge University Press.

- Bauchet, P. (1998). *Les Transports Mondiaux, Instrument de Domination*, 65.
- Bell, M. K. (2010). Forget What You Intended: Surprisingly Strict Liability and COGSA versus Carmack, *Transportation Law Journal*, 37, 57–71,
- Baughen, S. (2018). A small step on the road to Rotterdam?. Retrieved on 30 September 2018, <https://iistl.blog/2018/08/06/a-small-step-on-the-road-to-rotterdam/>
- Croce, B. (author) and A. Douglas (translator) (1960). *History, Its Theory and Practice*, (Harcourt Brace Company).
- Clapham, J. H. (1952). *An Economic History of Modern Britain* (Cambridge University Press).
- Chuah, J. C. T. (2009). *Law of International Trade: Cross-Border Commercial Transactions*. 4th edn. London, the UK: Sweet & Maxwell/Thomson Reuters.
- Comedy v. Easy Managed Transport* [2007] EWHC 611
- Comité Maritime International (CMI) (1979). *Travaux Préparatoires of the Hague Rules and of the Hague-Visby Rules*. Retrieved 30 October 2018. <https://comitemaritime.org/publications-documents/travaux-preparatoires/>
- CMI (2013). *History - Comité Maritime International*. Retrieved 18 June 2013. <http://comitemaritime.org/History/0,273,1332,00.html>.
- CMI (no date). Rules for Electronic Bills of Lading. Retrieved 7 December 2018, <http://www.comitemaritime.org/Rules-for-Electronic-Bills-of-Lading/0,2728,12832,00.html>.
- CMI (no date). Lex Maritima. Retrieved 7 December 2018, <https://comitemaritime.org/work/lex-maritima/>.
- Convention Concerning the Carriage of Goods by Rail (CIM) (1952). 25 October 1952, 241 U.N.T.S. 336. The initials CIM stand for its French name ‘Convention Internationale concernant le transport des Marchandises par chemin de fer’. Retrieved 17 June 2018, <http://www.jus.uio.no/lm/cim.rail.carriage.contract.uniform.rules.19xx/doc.html>
- Convention for the Unification of Certain Rules Relating to International Carriage by Air (the ‘Warsaw Convention’), 12 October 1929, 49 Stat. 3000, 137 L.N.T.S. 1.

- Dor, S. (1956). *Bill of Lading Clauses and the Brussels International Convention of 1924: Study in Comparative Law*. New York, the USA: W. Pickering & Sons Publisher.
- Diamond, A. (2009). The Rotterdam Rules, *Lloyd's Maritime and Commercial Law Quarterly*, (4), pp. 445–536.
- De Wit, R. (2010). Minimal Music: Multimodal Transport Including a Maritime Leg Under the Rotterdam Rules, in Thomas, D. R. (ed.) *The Carriage of Goods by Sea under The Rotterdam Rules*. London: Lloyd's List, pp. 93-99, 100–107., paragraph 5.15-5.47.
- Donovan, A. (2000). Intermodal Transportation in Historical Perspective, *Transport Law Journal*, 27, p. 317.
- Daudin, G. (2003). La Logistique de la Mondialisation, *Revue de l'OFCE*, 87(4), pp. 409–435.
- Fletcher, M.E. (1958). The Suez Canal and World Shipping, 1869-1914. *Journal of Economic History* (18), 556–573.
- Frederick, D. C. (1991). Political Participation and Legal Reform in the International Maritime Rulemaking Process: From the Hague Rules to the Hamburg Rules, *Journal of Maritime Law and Commerce*, 22(1), 81–117.
- Force, R. (1996). Comparison of the Hague, Hague-Visby, and Hamburg Rules: Much Ado About?', *Tulane Law Review*, 70(4), pp. 2051–2090.
- Faria, J. A. E. (2008). Uniform Law for International Transport at UNCITRAL: New Times, New Players, and New Rules', *Texas International Law Journal*, 44(4), pp. 277–320.
- Grammenos, C.T. (2010). Chapter I: Shipping Economics and Maritime Nexus. In Grammenos, C. T. (ed.), *The Handbook of Maritime Economics and Business*. 2nd edn. London, the UK: Informa.
- Honnold, J. D. O. (1993). Ocean Carriers and Cargo; Clarity and Fairness: Hague or Hamburg?' (1993) 24 *Journal of Maritime Law and Commerce* 75.
- Holt, A. (1878). 'Review of the Progress of Steam Shipping During the Last Quarter of a Century' (1878) 51 *Minutes of the Proceedings of the Institution of Civil Engineers* 2–11, 7.

Harley, C.K. (1971). 'The Shift From Sailing Ships to Steamships, 1850-1890: A Study in Technological Change and Its Diffusion' in D. N. McCloskey (ed), *Essays on a Mature Economy: Britain after 1840* (Princeton University Press), 215-234

Haralambides, H. E. (2004). Determinants of Price and Price Stability in Liner Shipping, in *Workshop on The Industrial Organization of Shipping and Ports*, National University of Singapore, 5-6 March 2004, Singapore.

Huybrechts, M. A., (2010). Package Limitation as an Essential Feature of the Modern Maritime Transport Treaties: a Critical Analysis. In Thomas, D. R. (ed.) *The Carriage of Goods by Sea under The Rotterdam Rules*. London, the UK: Lloyd's List, pp. 119–139.

Honka, H. (2010). Matters Not Governed by This Convention', in *The Rotterdam Rules 2008*. In von Ziegler, A., Schelin, J. and Zunarelli, S. (eds), *The Rotterdam Rules 2008: Commentary to the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea*. Alphen aan den Rijn, Netherlands: Wolters Kluwer. pp.349-354.

International Law Association (ILA), (1921). Report of the 30<sup>th</sup> Conference ('Hague Conference 1921'), vii, reprinted in Sturley, M. F., (1990). *The Legislative History of the Carriage of Goods by Sea Act and the Travaux Préparatoires of the Hague Rules* (Volume 1). New York, the USA: Fred B. Rothman & Co.

International Convention Concerning the Carriage of Goods by Rail (COTIF), 7 February 1970, 1101 U.N.T.S. 226.

Knauth, A.W. (1953). American Law of Ocean Bills of Lading (American Maritime Cases) 116, 538.

Lloyd's List (2017). [Hyundai Merchant Marine] Completes Pilot Blockchain Voyage with Reefer-laden Box Ship. 7 September 2017.

Lilar, A. & van den Bosch, C. (1973). *Le Comité maritime international, 1897-1972: International Maritime Committee*. Antwerp, Belgium: Le Comité Maritime International.

Mangone, G. J. (1997). *United States Admiralty Law*. Leiden: the Netherlands, Kluwer Law International.

Nicholas, A. (2010). The Duties of Carriers under the Conventions: Care and Seaworthiness. In Thomas, D. R. (ed.) *The Carriage of Goods by Sea under The Rotterdam Rules*. London, the UK: Lloyd's List, pp. 113–117.

OECD (2001). Doc.DSTI/DOT/MTC(2001)3 (11 January 2001).

OECD (no date). Statistics on Transport, Sea Container Transport, <http://www.oecd.org/statistics/>, [http://stats.oecd.org/index.aspx?DatasetCode=CONTAINERS\\_TRANSPORT](http://stats.oecd.org/index.aspx?DatasetCode=CONTAINERS_TRANSPORT), and [http://stats.oecd.org/index.aspx?DatasetCode=NATIONAL\\_SEA\\_TRANSPORT](http://stats.oecd.org/index.aspx?DatasetCode=NATIONAL_SEA_TRANSPORT). Retrieved 1 March 2018 (providing data and corresponding charts of OECD countries).

Protocol to Amend the International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading ('the Visby Rules'), 23 February 1968, 1977 Gr. Brit. T.S. No. 83 (Cmnd. 6944) (entered into force on 23 June 1977).

Rasmussen, U.L. (2010). Additional Provisions Relating to Particular Stages of Carriage. In von Ziegler, A., Schelin, J. and Zunarelli, S. (eds), *The Rotterdam Rules 2008: Commentary to the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea*. Alphen aan den Rijn, Netherlands: Wolters Kluwer.

*re Missouri Steamship Company* (1889) LR 42 ChD 321, 322

Sturley, M. F., (1990). *The Legislative History of the Carriage of Goods by Sea Act and the Travaux Préparatoires of the Hague Rules* (Volumes 1-3). New York, the USA: Fred B. Rothman & Co.

Sturley, M. F. (1991). The History of COGSA and the Hague Rules, *Journal of Maritime Law and Commerce*, 22(1), pp. 1–57.

Sturley, M. F., Fujita, T. & van der Ziel, G. (2010). Multimodal Aspect. In Sturley, M. F., Fujita, T., & van der Ziel, G. (eds) *The Rotterdam Rules: The UN Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea*. London, the UK: Sweet & Maxwell, pp. 59–75.

Sturley, M. F., Fujita, T. & van der Ziel, G. (2010). Chapter I: 'Introduction and Historical Background to the Rotterdam Rule's. In Sturley, M. F., Fujita, T. and van der Ziel, G. (eds),

*The Rotterdam Rules: The UN Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea.* London, the UK: Sweet & Maxwell.

Sturley, M. F., Fujita, T. & van der Ziel, G. (2010). Carrier's Liability. In Sturley, M. F., Fujita, T. and van der Ziel, G. (eds), *The Rotterdam Rules: The UN Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea.* London, the UK: Sweet & Maxwell.

Sturley, M. F., Fujita, T. and van der Ziel, G. (2010). *The Rotterdam Rules: The UN Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea.* London, the UK: Sweet & Maxwell.

Sturley, M. F., (2016). What has Become the Rotterdam Rules?, *Journal of Transportation Law, Logistics and Policy*, 2016(83), 275-294.

Samuda, J. D'A. (1870). On the Influence of the Suez Canal on Ocean Navigation, *Transactions of the Institution of Naval Architects*, 11, 1-8.

Sjostrom, W (2004). Ocean Shipping Cartels: A Survey, *Review of Network Economics*, 107.

Sweeney, J. C. (1993). Happy Birthday, Harter: A Reappraisal of the Harter Act on its 100th Anniversary, *Journal of Maritime Law and Commerce*, 24, 1-42.

Schmelzer, E., & Peavy, R. A. (1970). 'Prospects and Problems of the Container Revolution', *Journal of Maritime Law and Policy*, 1, p. 203.

Si, Y., & Guo, P. (2010). Limits of Liability', in *The Rotterdam Rules 2008*. In von Ziegler, A., Schelin, J. and Zunarelli, S. (eds), *The Rotterdam Rules 2008: Commentary to the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea*. Alphen aan den Rijn, Netherlands: Wolters Kluwer. pp.259

Thomas, D. R. (ed.) (2010). *The Carriage of Goods by Sea under The Rotterdam Rules*. London, the UK: Lloyd's List.

*Thermo Engineers v. Ferrymaters Ltd* [1981] 1 W.L.R.

UNCITRAL (1988). 21st Session Report, paragraph 84.

UNCITRAL (1987). Doc.A/CN.9/642, 20<sup>th</sup> Session Report, paragraphs 163-166.

UNCITRAL (1978). United Nations Convention on the Carriage of Goods by Sea (the ‘Hamburg Rules’, 1978), U.N. Doc. A/CONF. 89.

UNCITRAL (2008). The United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea (‘Rotterdam Rules’), New York, 11 December 2008, UN Doc.C.N.790.2009.

UNCTAD (2012). *Maritime Transport Review*. Geneva, Switzerland: UNCTAD Publisher.

UNCTAD (2018). *Maritime Transport Review*. Geneva, Switzerland : UNCTAD Publisher.

UN, Convention on the Contract for the International Carriage of Goods by Road (CMR, abbreviated from the French ‘*Convention relative au contrat de transport international des marchandises par route*’), 19 May 1956, 399 U.N.T.S. 189, amended by the 1978 Protocol.

United States (1893). The Harter Act 1893, 27 Stat. 445

UK Government (2018). PM Brexit negotiations statement: 21 September 2018, <https://www.gov.uk/government/news/pm-brexit-negotiations-statement-21-september-2018>

Ulfbeck, V. (2010). Multimodal Transports in the United States and Europe - Global or Regional Liability Rules?, *Tulane Maritime Law Journal*, 34(1), pp. 37–90.

Westbrook, J. (1990). Extraterritoriality, Conflict of Laws, and the Regulation of Transnational Business, *Texas International Law Journal*, 25, pp. 71-85, 92-96.

Wilson, J. F. (2010). *Carriage of Goods by Sea*. 7th edn. Essex, the UK: Pearson/Longman.

Yancey, B. W. (1982). The Carriage of Goods: Hague, COGSA, Visby, and Hamburg, *Tulane Law Review*, 57(4), pp. 1238–1259.

Yiannopoulos, A. N. (1958). Conflicts Problems in International Bills of Lading: Validity of ‘Negligence’ Clauses, *Louisiana Law Review*, 18, pp.609–627

Petition of Glasgow Corn Trade Association (1890), reprinted in H.R. Rep. No. 1988, 52d Cong., 1st Sess. 2 (1892), and cited in Sturley (1991) *Journal of Maritime Law and Commerce* 22(1), p.10.

H.R. Rep. No. 1988, 2 and 24 Cong. Rec. 172 (1892) (‘Rep. Coombs’) cited in Sturley, ‘The History of COGSA and the Hague Rules’ 11.

*Missouri Steamship Co.*, Re(1889) 42 Ch D 321

Sea-Carriage of Goods Act 1904, No. 14 (Australia), superseded by Sea-Carriage of Goods Act 1924, No. 22 (Australia).

New Zealand, Shipping and Seamen Act, 1903, No. 96, § 293 and § 300(1)

United States, the US Harter Act § 3.

French Morocco, Code de Commerce Maritime, article 267 (French Morocco, 31 March 1919)

van der Ziel, G. (2009). Multimodal Aspects of the Rotterdam Rules, *Uniform Law Review (Revue de Droit Uniforme)*, XIV, 945–996, 989.

von Ziegler, A., Schelin, J. and Zunarelli, S. (2010). *The Rotterdam Rules 2008: Commentary to the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea*. 1st edn. Edited by A. von Ziegler, J. Schelin, and S. Zunarelli. Alphen aan den Rijn, Netherlands: Wolters Kluwer.

Zhao, L. (2016). An Analysis of Transport Documents and Electronic Transport Records under the Rotterdam Rules. In S. Zunarelli, & M. Musi (eds), *Current Issues in Maritime and Transport Law. Il Diritto Marittimo – Quaderni*, Bologna, Italy: Bonomo Editore publisher.