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# OF TRUCKS, TRAINS & SHIPS: RELATIVE LIABILITY IN MULTIMODAL SHIPPING

*Amir H. Khoury*<sup>1</sup>

## INTRODUCTION

For many years now, various international agreements and national laws have provided ways in which to determine the liability for cargo loss damage and delay. Yet, in a multimodal reality these systems still lack a clear mechanism for assessing the liability amongst the various multimodal carriers that are generally involved in the shipping of cargo, especially in cases where it is not clear where, in the shipment chain, the damage actually occurred. This paper provides a simple, yet novel mechanism for resolving such disputes among different carriers and cargo handlers in multimodal shipping. This is done by way of my proposed Relative Distance & Time Index (“RDTI”). My proposed RDTI system aims to achieve a realistic calculation of liability for each participant in the multimodal shipping process. Thus, such a system would typically reduce the need for these carries to argue and potentially to initiate legal action against one another over the relative responsibility for the damage or loss of a container and/or its contents.

## I. MULTIMODALISM AND THE LIABILITY QUESTION

### A. *The Role of Multimodal Shipping*

Over the years, commercial trade utilizing the high-seas has expanded and developed. In today’s globalized world and with the advent of containerization, the movement of goods over great distances (including the high seas) is now the norm. Thus, multimodalism—the integration of various means of transportation that carries cargo across land and sea—has become over the past five decades the standard procedure in all parts of the world.<sup>2</sup> Trucks, trains and ships, as well as sea-ports, are now integrated together into a collective multimodal system.<sup>3</sup> Historically, various factors contributed to multimodalism including the conversion from sail (or wind) power to steam; the development of metal hull ships; but most substantially the

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<sup>2</sup> See MARC LEVINSON, *THE BOX: HOW THE SHIPPING CONTAINER MADE THE WORLD SMALLER AND THE WORLD ECONOMY BIGGER* 1–13 (2006).

<sup>3</sup> See ALAN E. BRANCH, *ELEMENTS OF SHIPPING* 1–5 (Routledge 8th ed. 2007) (providing a survey of ocean shipping and its role).

container. Containers—being of standardized large metal boxes that are stackable—changed the form of shipping on land and on the high seas.<sup>4</sup> Container ships led to the development of various vessels that are intended to carry containers such as classic container ships, barge container carriers, as well as roll-on roll-off ships.<sup>5</sup>

A parallel development occurred on land as well, where new facilities, such as container port facilities, and vehicles, such as lorries, trailers and container carrying became a prevalent form of shipping on land.<sup>6</sup> Also, notable is the development of containers in different sizes and for specialized purposes. Thus, thanks to this medium of shipping, all major shipping lanes around the world are containerized and are now joined together in a massive multimodal network on sea and on land. Mandelbaum sees this as the “efficient merging of different transportation modes into a seamless whole.”<sup>7</sup> Mandelbaum adds that containerization “significantly reduces the time and labor needed to load or unload a ship. It is preferred by shippers because it means faster delivery and by reducing handling, it minimizes breakage and pilferage.”<sup>8</sup>

This compatibility of the container with various modes of transport allows for transportation by sea, rails, motor, and even by air carries. Consequently, this method of shipping reduced time, loss, damage, and theft in comparison to the traditional break-bulk carriage.<sup>9</sup> On the legal level, this integration also brought about the expansive use of multimodal transportation contracts.<sup>10</sup> Not surprisingly, multimodalism also reformulated the contractual structure of shipping wherein the shipper and the ocean carrier now have to interact and contract with various entities including the railroad haul-

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<sup>4</sup> Samuel R. Mandelbaum, *International Ocean Shipping and Risk Allocation for Cargo Loss Damage and Delay: A U.S. Approach to COGSA, Hauge-Visby, Hamburg and the Multimodal Rules*, 5 J. TRANSNAT'L L. & POL'Y 1, 4 (1995) (describing the versatility of containers in that they are “large metal boxes that can be placed on a tractor-trailer chassis, loaded at the exporter’s plant, sealed, shipped by truck or train to the port, lifted onto a container ship by a dockside crane and stacked in specially designed slots. The container itself is then loaded at its destination. This is all accomplished without directly handling the cargo inside the container.”).

<sup>5</sup> William J. Coffey, *Multimodalism and the American Carrier*, 64 TUL. L. REV. 569, 570 (1989).

<sup>6</sup> Richard Palmer & Frank DeGiulio, *Terminal Operators and Multimodal Carriage: History and Prognosis*, 64 TUL. L. REV. 281, 284–94 (1989).

<sup>7</sup> Mandelbaum, *supra* note 4, at 4.

<sup>8</sup> Mandelbaum, *supra* note 4, at 4.

<sup>9</sup> See Thomas R. Denniston et al., *Liabilities of Multimodal Operators and Parties Other than Carriers and Shippers*, 64 TUL. L. REV. 517, 518 (1989).

<sup>10</sup> See *id.*

ers, independent freight forwarders, terminals, stevedores, and other sea carriers (collectively, the "Shipping Actors").<sup>11</sup>

The most notable advantage of containerization is that it allows commodities "to be loaded at the point of origin and to be transported without interim handling until the container arrives at its ultimate destination."<sup>12</sup> But, this advantage entails a disadvantage, namely that the contents in the container cannot be seen and, as such, damage thereto cannot always be traced to a specific Shipping Actor.<sup>13</sup> Indeed, with the expansion of multimodal shipping, damage and loss to goods is also part of reality.<sup>14</sup> Given the various Shipping Actors that are typically involved in the shipping of such goods, it is important to determine their respective liability for damage or loss of a shipment; namely, how should one determine the specific liability of each of the different Shipping Actors with respect to any given freight? In this research, I propose a simple yet effective and practical mechanism for resolving this issue.

### B. *The Legal Liability in the Multimodal Journey*

The multimodal shipping journey can be divided into different stages wherein a specific Shipping Actor is involved. This multimodal system brings to the forefront a host of questions regarding liability of each of the Shipping Actors with respect to loss or damage of a given shipment.<sup>15</sup> Among the questions that I consider here are: Who bears responsibility for loss or damage of the cargo? To whom does the shipper turn to for compensation in such a case? Are ocean carriers protected against loss or damage that occurs in the inland stage of the shipment (and vice versa)? The integration of all the Shipping Actors in the containerized shipping process prompts these questions.<sup>16</sup>

This is a far-cry from the pre-containerization era. Indeed, before the container revolution, cargo moved from truck or train to ship and it was then inspected by the carrier, item by item, for damage. Only then did the carrier sign a receipt and issue its own bill of lading, which included the terms of carriage and limits on its liabil-

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<sup>11</sup> See *id.* This has been at the expense of long shore employment which has been on a rapid decline and in some cases has become a negligible part of the industry. See Palmer & Degiulio, *supra* note 6, at 301.

<sup>12</sup> Denniston et al., *supra* note 9, at 518.

<sup>13</sup> See *id.* at 518–19

<sup>14</sup> See *id.*

<sup>15</sup> See generally Nadezda Alexandrovna Butakova, *Multimodal Bill of Lading: The Problem of Party Liability* (Russian Presidential Acad. of Nat'l Econ. and Pub. Admin. 2013), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2294399](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2294399) (discussing the liability in door-to-door multimodalism).

<sup>16</sup> See, e.g., Denniston et al., *supra* note 9, at 518–19.

ity.<sup>17</sup> At that time, the sea, rail, and road carriers existed as “separate and distinct entities, providing separate and distinct services under separate and distinct transportation documents, and were governed by separate and distinct regulatory and liability regimes.”<sup>18</sup> For example, in the United States, while the Federal Maritime Commission regulated the ocean carriers, the Harter Act and the Carriage of Goods by Sea Act (“COGSA”) covered damage to the goods on board or around the ship.<sup>19</sup> Besides that, the Interstate Commerce Commission (“ICC”) regulated the railroad and tracks and applied when cargo became lost or damaged while in transit on land.<sup>20</sup> In fact, various national and international rules now exist which address the liability of the separate Shipping Actors in multimodalism.<sup>21</sup> This section will shed light on the conventional liability regime that regulates ocean shipping in the era of multimodal containerization. In doing so, the intent is to show that these problems, relating to liability, are very real and also that the existing regulatory framework still lacks an approach that factors in the differences amongst the various Shipping Actors. The contention in this paper is that said differences need to be factored in when considering the scope of liability of each of those Shipping Actors with respect to a given shipment.

From the outset, it should be pointed out that the issue in this research is not about the identity of the payer to the shipper for loss or damage of his shipment; that payment is typically covered by an insurance policy. Nor does the question here relate to the scope of damage that it determined by the courts with respect to the shipment. Both questions are beyond the scope of this paper. This article considers the actual relative scope of liability of each of the Shipping Actors with

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<sup>17</sup> See Jack G. Knebel & Denise S. Blocker, *United States Statutory Regulation of Multimodalism*, 64 TUL. L. REV. 543, 544 (1989).

<sup>18</sup> *Id.*

<sup>19</sup> The Carriage of Goods by Sea Act (“COGSA”) is a US law that regulates the relationship (i.e. rights and responsibility) between ship-owners and shipper of cargo that is shipped across the ocean to and from the U.S. See *id.* at 554. The Harter Act is partially covered by COGSA, but some parts still apply prior to loading and after discharging of cargo. See Denniston et al., *supra* note 9, at 522 (noting that the Harter Act is still important despite its overlap by the broader COGSA).

<sup>20</sup> See Knebel, *supra* note 14, at 544.

<sup>21</sup> See generally United Nations Conference on a Convention on International Transport of Goods, Sept. 1, 1980–Aug. 31, 1981, U.N. Dec. TD/MT/CONF/17 (1981) (attempting to resolve several fundamental legal uncertainties in the area of liability); Mahin Faghfour, *International Regulation of Liability for Multimodal Transport*, 5 WMU J. MAR. AFF. 95 (2006) (providing a comprehensive review of the various treaties and agreements pertaining to liability in multimodal shipping).

respect to a specific container shipment. In order to explain this better, consider, if you will, a case involving a claim of reimbursement (by an insurance company that has already paid the damages to the shipper). The reimbursement claim is typically directed to all the Shipping Actors that were involved in the specific shipment. This research intends to provide a formula for calculating said liability. This same challenge as to the determination of the scope of liability is also relevant in cases where the shipment is not insured by the shipper. In both cases, the question of the liability that rests on each Shipping Actor is of paramount importance. Indeed, such a determination is crucial when seeking to resolve the dispute amongst them. However, before this article gets to the liability issue per-se, I should like to shed light on the complex nature of the multimodal shipment as seen through the legalistic tort prism. Understanding the dynamics of multimodalism will set the stage for the proposed solution.

As already mentioned, the container revolution led to the integration of sea and land carriage. Shipping Actors now offer door-to-door service under a single bill of lading. Notwithstanding this impressive development, and as is apparent from the segregated approach to the liability issue the legal regime has not been able to keep up with these changes. Thus, the difference between the realities on the ground and the tort-related regulative framework pertaining thereto creates a gap. In this regard, Palmer and Degiulio observe that:

From a legal standpoint, the development of multimodalism is significant because the laws governing the rights and liabilities of carriers and shippers were developed separately for each mode of transportation during the decades when those transportation segments were viewed as distinct. The technological advances associated with multimodalism have outpaced changes in the law, often resulting in the application of different and regulatory regimes to a single cargo movement.<sup>22</sup>

Faghfouri adds that: "The application of a variety of national laws and international unimodal conventions to different portions of the multimodal carriage resulted in uncertainty as to the laws governing international door-to-door transportation of goods."<sup>23</sup> This reality is essentially the catalyst for finding a common system where the respective liabilities of Shipping Actors can be factored in together. Thus, this article does not intend to provide an analysis of the different systems that deal with carriers' liability, but rather to propose a model

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<sup>22</sup> Palmer et al, *supra* note 6, 284–85.

<sup>23</sup> Mahin Faghfouri, *supra* note 21, 95. (adding that "[t]he international unimodal conventions which applied to different parts of multimodal transport were inadequate to resolve the complex issues arising under multimodal transport.").

whereby it is possible to bridge these difference (amongst Shipping Actors) thus rendering them more compatible and ultimately paving the way for a more overall unified and harmonized legal system.

It is worth noting that an integrated liability system is not new to ocean shipping.<sup>24</sup> Indeed, originally during the Middle Ages, the ship owner, the cargo owner, and even the master of the vessel shared equally in the risks and the rewards of the journey.<sup>25</sup> It was reminiscent of a “joint venture.”<sup>26</sup> Over time, this joint venture split apart.<sup>27</sup> The split led to the creation of a host of laws and treaties wherein ship-owners were given additional protections against potential claims by the shipper.<sup>28</sup> Furthermore, additional separation was seen amongst the parties that were involved in the shipment, namely, the vessel’s owner; terminal operators; stevedores; and inland carries, such as trucks and trains.<sup>29</sup>

The Harter Act of 1893 effectively became the first sign of the great split between the shipper and the carrier of cargo.<sup>30</sup> For the first time, a U.S. statute was enacted to specifically regulate the bills of lading.<sup>31</sup> According to Michael F. Sturley, the Act was essentially “a compromise between the conflicting interests of carriers and shippers.”<sup>32</sup> This Act exempted the ship owner from liability for “errors in navigation and management of the vessel, but on condition that the ship owner had furnished a sea worthy vessel.”<sup>33</sup> Congress based this exemption on the rationale that the ship owner has no control over his ship after it has left the port. This is indicative of the trend to separate those involved in the shipping process; each in accordance with his segments and apparent responsibilities.<sup>34</sup> The Harter Act’s principles

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<sup>24</sup> See Coffery, *supra* note 5, at 569, 581.

<sup>25</sup> *Id.*

<sup>26</sup> Joseph C. Sweeney, *UNCITRAL and the Hamburg Rules – The Allocation Problem in Maritime Transport of Goods*, 22 J. MAR. L. & COM. 511, 512 (1991).

<sup>27</sup> Coffery, *supra* note 5, at 581.

<sup>28</sup> *See id.*

<sup>29</sup> *See id.*

<sup>30</sup> Bills of Lading, etc., 27 Stat. 445 (1893).

<sup>31</sup> Coffey, *supra* note 5, at 581.

<sup>32</sup> Michael F. Sturley, *Benadict of Admiralty §12* (7th ed. 2014). Michael F. Sturley, *Basic Cargo Damage Laws: Historic background*, 2a 2-5 (1995).

<sup>33</sup> Coffey, *supra* note 5, at 581.

<sup>34</sup> In order to cover all those involved in the shipping process (the Shipping Actors), it has been possible to invoke a Himalaya type clause. This is typically a provision for the benefit of third parties that are not a direct party to the contract. In the case of ocean shipping the benefit is generally in the form of an exemption from liability. It is generally an exclusion clause in a bill of lading and usually is intended to protect stevedores. This clause takes its name from English case *Adler v Dickson* (The Himalaya) [1954] 2 Lloyd’s Rep 267, [1955] 1 QB 158, wherein the

led to the Brussels Conference and the 1924 International Convention for the Unification of Certain Rules Relating to Bills of Lading (commonly referred to as the "Hague Rules").<sup>35</sup> The United States ratified these rules in 1937 and were substantially enacted in the Carriage of Goods by the Sea Act ("COGSA").<sup>36</sup> Following that adoption by the U.S., many European shipping nations went on to adopt the Hague Rules by 1939.<sup>37</sup> It is worth noting that, while COGSA linked the defenses of the carrier with his obligations, it failed to apply a unified model of liability towards all market actors including the inland carriers. COGSA, as its name suggests, remained limited to sea carriers only.<sup>38</sup> Clearly, different regimes have been applied relating to the ship or truck owners duty. Whereas COGSA applies tackle to tackle (i.e. from loading till discharge), the Harter Act still applies to shipments in interstate commerce. Furthermore, whereas COGSA requires a causal connection between unseaworthiness and damage to cargo, the Harter Act, as interpreted by the 1933 *Isis* ruling,<sup>39</sup> does not require a causal connection between the failure to exercise due diligence and the loss of cargo. It is worth noting that The Hague rules have been amended over time; a process that started in 1956. This process culminated in the 1968 in the Visby Amendment to the Hague Rules.<sup>40</sup> The United Nations Convention on the Carriage of Goods by Sea com-

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claimant a passenger on the S.S. Himalaya sustained a bodily injury when boarding the ship (a fallen gangway).

<sup>35</sup> Coffey, *supra* note 5, at 581.

<sup>36</sup> *Id.*

<sup>37</sup> See Mandelbaum, *supra* note 4, at 13.

<sup>38</sup> Sections 1303 and 1304 of COGSA are interlocked thereby creating a symbiotic interaction between the obligations of the carrier (e.g. seaworthiness, proper care, loading, stowage and discharge of goods) and the defenses of the carrier (e.g. due diligence, wastage, omissions or acts of the shipper, fire, act of public enemies, strikes, acts of God, acts of war, and perils of the sea). 46 USC

<sup>39</sup> See, e.g., *May v. Hamburg-Amerikanische Packetfahrt Aktiengesellschaft*, 290 U.S. 333, 350 (1933) (discussing the *Isis* ruling).

<sup>40</sup> See generally Michael F. Sturley, *Uniformity in the Law Governing the Carriage of Goods by Sea*, 26 J. MAR. L. & COM. 553, 560–61. Additionally, the Hague rules of 1924 are officially known as the "International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading" (of 1924). In 1968, the Hague rules were entered through the Visby Amendments ("Protocol to Amend the International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading") in 1968. These regulations are now known as the Hague-Visby Rules. *Id.* at 554. The basic premise underlying these rules is that the ocean carrier enjoys greater bargaining power than ocean shipper/cargo owner and as such this inherent bias needs to be off-set in order to protect the latter against the ocean carrier. This was achieved by imposing minimum obligations (liability) upon the ocean carrier. *Id.* at 572–73.



monly referred to as the Hamburg Rules of 1978,<sup>41</sup> revolutionized the rules of liability in that they effectively replaced them.<sup>42</sup> However, the Hamburg rules did not have a notable impact on the liability regime in the U.S. given that the U.S. did not adopt the rules and the countries that did ratify the rules are not themselves major trading partners with the U.S.<sup>43</sup>

From the short survey above, the lack of uniformity pertaining to the liability regime amongst Shipping Actors is evident. Specifically, there is no uniformity across various topics, including: limits of liability, scope of application, definition of carrier, period of carriage responsibility, the standard of liability, damages due to delay, and liability for deck cargo. Given these incoherencies, much has been written to address them.<sup>44</sup> In this context, Mandelbaum suggests creating uniform worldwide liability standards using the above mentioned laws and conventions.<sup>45</sup> Indeed, ever since 1975, parties have attempted to establish uniform principles of liability for multimodal operators. These included the 1975 International Chamber of Commerce Uniform Rules for a Combined Transport Document, the 1980 United Nations Convention on International Multimodal Transport of Goods, and the 1991 United Nations Conference on Trade and Development, which resulted in the International Chamber of Commerce Rules for Multimodal Transport Documents.<sup>46</sup> As Rendell observes, all of these multimodal conventions are "intended principally to deal with the advent of multimodal door-to-door container shipping practices and to provide for adequate compensation in cases where damage occurs but the transport mode on which it occurred cannot be determined."<sup>47</sup> The relevance of this unification holds true today and will continue to hold true so long as containers or similar modes of shipping continue to be used. Coffey observes that the factors that have led to the negotiation of the multimodal convention "are still applicable today . . . [c]argoes continue to move in containers on a point-to-point basis, passing

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<sup>41</sup> U.N. Convention on the Carriage of Goods by Sea, *opened for signature* Mar. 31, 1978, 1695 U.N.T.S. 3.

<sup>42</sup> Coffey, *supra* note 5, at 584.

<sup>43</sup> *Id.* at 583.

<sup>44</sup> See *supra* note 4, at 22; See also Joseph C. Sweeney, *Happy Birthday, Harter: A Reappraisal of the Harter Act on its 100th Anniversary*, 24 J. MAR. L. & COM. 1, 42.

<sup>45</sup> See Samuel R. Madelbaum, *Creating Uniform Worldwide Liability Standards for Sea Carriage of Goods Under the Hague, COGSA, Visby and Hamburg Conventions*, 23 TRANS. L. J. 471, 490.

<sup>46</sup> Conference on a Convention on International Transport of Goods, *supra* note 21.

<sup>47</sup> Robert Rendell, Report on Hague Rules Relating to Bills of Lading, 22 INT'L LAW., 246, 250 (1988).

through several liability regimes while on their journey from shipper to consignee.<sup>48</sup>

In essence, all types of Multimodal Conventions are guided by three basic aims.<sup>49</sup> The first aim is to publish specific rules to govern the carriage of goods in international multimodal transport, including equitable provisions relating to liability of multimodal transport operators. Secondly, these conventions aim to stimulate the development of multimodal transportation. And last, but not least, these conventions aim to avoid conflicts with other national and international regimes that govern the liability and control of multimodal transport operators.<sup>50</sup>

Guided by these principles, the UNCTAD Convention on the International Multimodal Transport of Goods of 1980 allows for the creation of a new entity called a Multimodal Transport Operator (“MTO”).<sup>51</sup> A MTO can, by definition, offer to shippers an optional door-to-door system of liability through a single bill of lading.<sup>52</sup> The convention defines multimodal transport as the carriage of goods by sea by at least two modes of transportation from one country to another.<sup>53</sup> The multimodal convention sets rules for bringing claims and suits by the shipper that are filed against the MTO that could then bring an action against the carrier.<sup>54</sup> The MTO’s liabilities are subject to the provisions of the convention; however, the rights and the responsibilities between the MTO and the other carriers continue to be governed by existing national or international treaties applicable to the particular unimodal leg of transportation.<sup>55</sup> Therefore, this convention as well falls short of creating a truly unified liability regime.

It is worth adding that these shortcomings in the conventional regime are nowhere more evident than the contractual web that exists for a single shipment. The multimodal shipment is based on a single bill of lading, known as the through bill of lading.<sup>56</sup> However, in order to fulfill the duties under the bill, an ocean carrier must enter into contracts with stevedores, terminal operators and inland carriers. Thus, an ocean carrier is “placed in the center of a contractual web of

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<sup>48</sup> Coffey, *supra* note 5, at 574.

<sup>49</sup> *Id.* at 575.

<sup>50</sup> See generally Duygu Damar, *Breaking the Liability Limits in Multimodal Transport*, 36 TUL. MAR. L.J. 659, 659–83 (2012) (Presenting an analysis of the implications of the lack of a uniform regime for multimodal shipping).

<sup>51</sup> Rendell, *supra* note 48, at 250.

<sup>52</sup> Mandelbaum, *supra* note 4, at 21.

<sup>53</sup> United Nations Conference on a Convention on International Transport of Goods, Sept. 1, 1980 – Aug. 31, 1981, U.N. Dec. TD/MT/CONF/17 (1981), at 5.

<sup>54</sup> Mandelbaum, *supra* note 4, at 21.

<sup>55</sup> Mandelbaum, *supra* note 4, at 21.

<sup>56</sup> Coffey, *supra* note 5, at 587.

terminals, haulers, railroads, shippers, and . . . independent freight forwards.”<sup>57</sup> Consequently, this multimodal transportation leads to complex overlapping legal relationships and multiple participants in the performance of the through bill of lading. In this state of affairs, the scope of the parties’ obligations depends not only on the provisions of the bill of lading, but also on the terms of the “subordinate contractual arrangements for performance of the various phases of the through transportation and handling.”<sup>58</sup> But, in spite of these attempts to resolve the liability incoherence, the reality is that various segments of shipping in the U.S. and elsewhere abroad remain regulated under different rules, conventions and regulations.<sup>59</sup> Indeed, the Hapburn, or Carmak, Act of 1906 that amended the Interstate Commerce Act, regulates inland carrier’s liability issues in the United States. Carmak defines the rights and liabilities of shippers and common carriers for cargo carried in interstate commerce and for cargo exported to an adjunct foreign country.<sup>60</sup> On the other hand, inland rail transportation may be subject to both ICC regulations and the Carmak amendment.<sup>61</sup> Notably, Carmak does not apply in foreign commerce where cargo is shipped under a through bill of lading.<sup>62</sup> However, interstate movements that are not made under a through bill of lading, as well as shipments from the United States to an adjunct country made under through bills, are subject to the liability standards of Carmak, even though they may be otherwise exempted from ICC regulations.<sup>63</sup> It is also worth noting that in *Reider v. Thompson*, the Supreme Court opened up the possibility of applying the Carmak Amendment to interstate shipments, which is a segment

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<sup>57</sup> Denniston, *supra* note 9, at 518.

<sup>58</sup> *See id.* at 519; *see also* Coffey, *supra* note 5, at 586, (explaining that in a basic multimodal contract, “a single party assumes full responsibility for the movements of the goods from the time of pickup until the time of delivery. A single document, a single responsible party, and a single regime of the liability are the earmarks of a multimodal contract.” In practice the ocean carrier, issues an international bill of lading where he protects himself (and his agents) from liability by inserting into the bill of lading a number of clauses such as: scope of voyage clause (wherein a vessel can be designated); valuation clause (wherein the value of the package is deemed to not have exceeded 500\$); the Integration Clause (which stipulates that the bill of lading supersedes any other arrangements); the Claims Clause (wherein the shipper undertakes to only file a claim for loss or damage against the ocean carrier); and the clause paramount (which subjects the bill of lading to COGSA)).

<sup>59</sup> David Sassoon, *Liability for the International carriage of Goods by Sea: Some Comparisons*, 3 J. MAR. L. & COM. 759 (1972).

<sup>60</sup> Knebel, *supra* note 14, at 555 n.81.

<sup>61</sup> *Id.*

<sup>62</sup> *Id.* at 564.

<sup>63</sup> *Id.*

of a larger international movement.<sup>64</sup> This has noticeably impacted the liability issue under the Carmack Amendment, as liability may be imposed either on the receiving carrier or the delivering carrier for loss caused by either of them or by an intermediate carrier when goods are transported under a through bill of lading.<sup>65</sup> And, adding more complexity to the picture, liability may also be imposed on numerous land actors involved in the shipment; namely, primarily stevedores and terminal operators. In the U.S. there is no clear agreement as to the nature of the service that stevedores and terminal operators render. Indeed, the difficulty in deciding stems from the fact that their services are rendered in the “twilight” zone between the ship and the shore.<sup>66</sup>

From all of the above, it is possible to conclude that absent a comprehensive, simple and practical approach to the relative liability amongst all market actors, the liability regime will remain contingent on the identity of the Shipping Actor, the contractual setting in which it operates, and the specific regime and country where the law is being applied. This defies the very idea behind the Containerization Revolution; namely, the integration and seamless flow of goods. Therefore, it is this article’s conviction that a fresh approach is required and warranted. I believe that the proposed model which is described in the remainder of this article can constitute the basis for such a fresh approach.

## II. A NEW LIABILITY PARADIGM FOR MULTIMODAL SHIPPING

Thus far, this article has highlighted the complexity of liability related to multimodal shipping that involves truck, trains and ships, as well as shore-side actors. The article demonstrated the lack of uniformity in terms of the applicable liability regimes. I argued against the dichotomy that exists wherein there is integration and cooperation amongst Shipping Actors on the ground, but there is much confusion and a lack of coherence as far as liability amongst them is concerned. Indeed, the article’s argument is that given the number of players in the field and their direct involvement and cooperation in moving the containers from shipper all the way to destination, there is a need to harmonize the liability system. This will help to provide clearer-cut

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<sup>64</sup> *Reider v. Thompson*, 339 U.S. 113, 119 (1950) (holding that “[t]he Carmack Amendment was to relieve shippers of the burden of searching out a particular negligent carrier from among the often numerous carriers handling an interstate shipment of goods. To hold otherwise than we do would immunize from the beneficial provisions of the Amendment all shipments originating in a foreign country . . .”).

<sup>65</sup> *Id.* at 115–16.

<sup>66</sup> *Denniston et al*, *supra* note 9, at 520.

answers as to how liability questions should be settled and will reduce the cost of conflicts and any resulting litigation emanating therefrom. Clearly, such a call to action is not new. In his review of UNCITRAL rules pertaining to liability, Faghfouri concludes that “[i]n the end, the fact remains that multimodal transport is in urgent need of a simple transparent and predictable legal framework which would avoid the complex and costly investigations in identifying the modal stage where loss occurs or the applicable liability rules.”<sup>67</sup>

The proposed model aims to create a new method for measuring the liability of the different entities that are involved in the shipping process. The proposed system creates a relative system of liability for creating a liability formula for all Shipping Actors. It takes into consideration the main factors that affect the way that liability needs to be split amongst the market actors. This is intended to offset any inherent biases in the system and to prompt all Shipping Actors and stake-holders to be more willing to accept such a unified model of liability. The model is also, by design, comprised of a simple structure. Indeed, past experience with shipping liability shows that the more complex the model, the less likely that it will be digested by the system and adopted by all concerned without reservation. Simplicity and compatibility are preconditions not only to containerization, but also to related questions of liability between the different Shipping Actors.

#### A. RDTI – Relative Time / Distance Index

The proposed model is based on the RDTI. This index can resolve the liability question amongst the Shipping Actors. The inspiration, so to speak, for the RDTI comes from a simple principle in physics whereby in order to create a balance between two different masses, they need to be placed at inversely proportional distances from the point of balance; this is also known as the Law of Lever.<sup>68</sup> So too here, in order to sort out the relative liability of trucks, trains, ships, terminals and stevedores, one would first have to bring these into a single index that creates a more realistic balance amongst them.

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<sup>67</sup> Mahin Faghfouri, *supra* note 21, at 114.

<sup>68</sup> The “Law of the Lever” states that the power into the lever equals the power out, and the ratio of output to input force is given by the ratio of the distances from the fulcrum to the points of application of these forces. A lever being a beam connected to ground by a hinge, or pivot, called a fulcrum. The ideal lever does not dissipate or store energy, which means there is no friction in the hinge or bending in the beam. Archimedes who stated the correct mathematical principle of levers is also deemed to have stated: “Give me a place to stand, and I shall move the Earth with it.” See, e.g., *The Lever*, NYU, <http://www.math.nyu.edu/~crrres/Archimedes/Lever/LeverIntro.html> (last visited Feb. 8, 2015).

The starting point for developing this proposed model is to recognize the differences amongst the various Shipping Actors. The main difference being that each medium of transport or other party involved in loading or receiving the container, is involved in a different type of task. This is evident in what a given Actor does with a container, how its handles it, and the duration of time or length of distance that the container is in that Shipping Actor's possession. This article's contention is that these RDTI parameters need to be factored into the liability of each Shipping Actor to determine the extent of his real liability vis-à-vis other Shipping Actors that are also involved in the shipment. My prosed RDTI model is explained based on the flowing factors:

- a. Each carrier involved in the moving or holding of a container and its contents is responsible, in relative measure as per the RDTI, to any damage or loss to the container or to its contents.
- b. The relative responsibly of each carrier is based on the RDTI. Which creates a unit of measure that is referred to here as Liability Miles ("LM")
- c. The RDTI is based on a calculation (per shipment) of the distance traveled or, in the case of the sea ports, the time that container is held therein.
- d. Specifically, each carrier's responsibly is determined by the distance of shipping divided by its relevant RDTI. For trucks the RTDI would be 1; For trains the RDTI would 2.5; and for ships the RDTI would be 5. The reason for this differential approach is simply because the 800 miles for a truck are far greater for the truck than they are for a ship or a train.<sup>69</sup> And thus, in order to create a more balanced calculation of relative liability there is a need to apply a Lever Law type system, which is explained above and as is further described in this section.
- e. Thus, if a truck travels 100 miles to the train depot, and the train travel 1500 miles to the port and the ship travels 10,000 miles to destination, the LM for each carry would be  $100/1 = 100$  LM for the truck,  $1500/3$  for the train = 500 LM, and  $10000/5 = 2000$  LM for the vessel.

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<sup>69</sup> For the sake of simplicity consider these different shippers as integrated wheels in a gear system. In this regard, consider the physical principle of rotation of different wheels in a gear. See *Gear*, WIKIPEDIA, <http://en.wikipedia.org/wiki/Gear> (last modified Feb. 5, 2015).

- f. Also, given that there are generally at least two ports that are involved in the holding of the container, their liability also needs to be factored. Therefore, in the case of sea ports the measurement is not distance but time and every hour would be equal in value to 5 miles traveled. Thus, if the shipment is held in two ports for two days each, then for each of the ports the share would be 48 hours \* 5 = 240 miles for each port or 480 miles for both ports together.
- g. Thus the total LM as adjusted by RDTI would be:  
$$100 \text{ LM} + 500 \text{ LM} + 2,000 \text{ LM} + 480 \text{ LM} = 3,080 \text{ LM}$$
- h. It follows that the liability of each of the carriers would be in accordance with the adjusted miles, that is to say: truck's responsibility would be:  $100 \text{ LM}/3,080 \text{ LM}$  (3.2%), train would be  $500/3,080$  (16.2%); the ship would be  $2000/3,080$  (64.9%); and for each port  $240/3,080$  (7.8%).

The view is that this proposed method of calculation would create a precise and predetermined relative measure index of liability, or legal responsibility, between all Shipping Actors. The LM unit that is a by-product of the RDTI more fairly reflects the share of each Shipping Actor regarding the damage that occurs to the containerized shipments.

Granted, while the proposed method might seem arbitrary at first glance, it is not. While the lion's share of the distance traveled by the container is reserved for sea faring vessels, trucks and trains on land need to bare greater responsibility for the goods they carry in transit and the distances that they travel. While shorter, when compared to the high seas, their relative part of the journey can be quite substantial. The same applies, as demonstrated above, to seaports and stevedores. The proposed system using effectively creates a unified measure for all Shipping Actors no matter what the nature and scope of their role is in shipping projects. Indeed, such a system would create a much more balanced measure of responsibility, ultimately assigning liability based on the specific carrier and on its relative role in the shipping of the container. In other words, the nominal distance and time are not good measures because they are not capable and also fail to deal with the specifics of each Shipping Actor. The LM unit is found by introducing a separate RDTI for each Shipping Actor, and thus reaches a more balanced outcome that contemplates the differences, thereby circumventing the problem. This outcome is not only logical, but also creates more distributive justice amongst the carriers and prompts land carriers to exercise more caution when shipping the container, given that that their share in the responsibly is greater than the nominal miles traveled when compared with the sea vessels.

It is worth noting that the idea of distributive justice is not new to tort discourse.<sup>70</sup> According to Keating, tort law should be primarily about distributive justice. In his view, it is a matter of the “fair apportionment of the burdens and benefits of risky activities” and only secondarily a matter of corrective justice.<sup>71</sup> While Keating’s view pertains to the relationship between tort perpetrator and tort victim, it can also, in my view, be applied to the interrelationship between various actors who might be jointly involved in the causing of damage. The distributive justice that is referred to in this research with respect to all Shipping Actors is intended to recalibrate the balance between the various Actors in the multimodal process. Thus, RDTI would factor in the differences amongst these Actors, creating a common denominator so that their liability can truly be calculated (using the LM unit). The relative distance traveled in the case of the mobile Shipping Actors and the time holding of cargo in the case of the stationary actors (port terminals, sea ports and stevedores) can attain this common denominator. Without this, any allocation of liability is liable to do injustice for one or more of these Shipping Actors. Thus, absent a relative liability approach, the conventional regime would remain counterproductive to boosting self-regulated caution on the part of these Actors.

Further, the proposed system would sideline and effectively eliminate any conflict between multimodal carries, bringing clarity instead of ambiguity. The strength of the proposed model is in its simplicity and in its consistency. It allows for ex-ante predictability. In this regard, the litigation costs are drastically cut and conflicts are effectively preempted. Not less important is the fact that similar cases around the world will evoke similar judicial rulings, and thus the likelihood of forum shopping will be reduced.<sup>72</sup> This equality amongst Shipping Actors is key to ensuring a fast-paced and efficient industry

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<sup>70</sup> Gregory C. Keating, *Distributive and Corrective Justice in the Tort Law of Accidents*, 74 S. CAL. L. REV., 193 (2000); see also, Anita Bernstein, *Distributive Justice (And Why Social Scholars Should Care)* (Brooklyn Law Sch. Legal Research Papers, Paper No. 189, 2010), Osnat Jacobi & Avi Weiss, *A Model of Fault Allocation in Contract Law—Moving From Dividing Liability to Dividing Costs* (Jan. 2010) (unpublished manuscript) (on file with the Bar-Ilan University), available at <http://www.biu.ac.il/soc/ec/wp/2010-02.pdf> (2010); Robert Cooter & Ariel Porat, *Total Liability for Excessive Harm*, 36 J. LEGAL STUD. 63 (2007), available at <http://scholarship.law.berkeley.edu/facpubs/1997>, Richard W. Wright, *The Principles of Justice*, 75 NOTRE DAME L. REV. 1859 (2000).

<sup>71</sup> Keating, *supra* note 50, at 194.

<sup>72</sup> See generally Jonathan M. Gutoff, *An Examination and Consideration of: Jurisdiction and Forum Selection in International Maritime Law: Essays in Honor of Robert Force*, 38 J. MAR. L. & COM. 583 (2007).



where integration through containerization is unimpeded not only on the physical level, but also on the liability-level as well.<sup>73</sup>

In effect, this model is prompted by the heterogeneity of the various carriers or parties that are involved in the shipping of a container. Indeed, without a system that considers these differences, it would be like trying to solve an equation of different fractions without creating a lowest common denominator, or in layman's terms, like adding apples and oranges. It is worth noting that the idea of heterogeneity in torts is not new. It has already been discussed and considered with respect to cases involving multiple victims.<sup>74</sup> In this regard, Halbersberg argues against the approach whereby liability of multiple victims should not be determined by comparing aggregate costs with aggregate benefits. In his view,

[T]his aggregate liability paradigm—adopted by courts, scholars and the Restatement (Third) of Torts—fails to account for the natural differences that exist between tort victims. When victims are heterogeneous with regard to their expected harm or costs of precaution—as they typically are in real life—basing liability on aggregate amounts may be incorrect, and generate over-deterrence in some cases and under-deterrence and dilution of liability in other. A new paradigm for liability in multiple-victim torts is, therefore, needed.<sup>75</sup>

This same logic applies to multiple carriers of a single container. Given the shortcomings of the current system, a two dimensional approach to torts is wrong, not only in the case of victims as is alluded to above, but also in cases involving Shipping Actors in the age of containerization. As alluded to above, the strength of the proposed model lies in its simplicity; an Occam's Razor type approach.<sup>76</sup> It is

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<sup>73</sup> See Alexandra D. Lahav, *The Case for "Trial by Formula"*, 90 TEX. L. REV. 571, 634 (2012) (noting that the best way to achieve "right to equal treatment before the law" is by adopting statistical methods).

<sup>74</sup> See generally Yoed Halbersberg, *Toward a New Paradigm for multiple-Victim Torts: The Problem of Victims Heterogeneity 1* (Hebrew Univ. of Jerusalem - i-Core Center for Empirical Studies of Decision Making & the Law 2013), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1264464](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1264464).

<sup>75</sup> *Id.*

<sup>76</sup> See *Occam's Razor*, WIKIPEDIA, [http://en.wikipedia.org/wiki/Occam%27s\\_razor](http://en.wikipedia.org/wiki/Occam%27s_razor) (alteration in original) (last modified Feb. 8, 2015) (noting that this problem-solving principle was devised by William of Ockham (c. 1287–1347), an English Franciscan friar and scholastic philosopher and theologian. "The principle states that among competing hypotheses, the one with the fewest assumptions should be selected. Other, more complicated solutions may ultimately prove correct, but—in the absence of certainty—the fewer assumptions that are made, the better." Additionally the article notes that "[i]n his *Summa Totius Logicae*, i. 12, Ockham cites

based on a simple fairness argument, whereby the proposed RDTI model is indeed a mechanism for bringing all of the carriers and holders of cargo to be held liable in accordance with their true, rather than nominal, involvement per containerized shipment. Thus, each Actor in the shipping process would be inclined to maximize caution in a manner that raises the cumulative level of caution over a given shipment.

### B. *Limitation on the Application of RTDI*

The proposed system is contingent on two cumulative preconditions. The first of these is that the loss or damage occurred during shipping, and second that it is not possible to assign direct blame to any given Shipping Actor. The first condition is elementary in law, since no claim can be initiated, nor relative liability allocated for damage or loss that cannot be proven or substantiated. With that being said, it should not be understood that the proposed model assigns automatic blame to those involved in the multimodal shipping. Indeed, this is not the case. The shipper must first prove that the damage occurred while the goods were not in his control and where in transit. The second condition is less obvious. It states that the system cannot be applied if it is clear that a specific carrier is in fact responsible for the loss or damage. In such a case, all the liability would revert to that specific carrier because assigning any blame to the other carriers would be unfair. It would also be counterproductive, in that it can reduce the incentive for exercising full duty of care. From the reverse can also be deduced, that is to say that where the damage or loss that occurs can be traced to a specific party that is involved in shipping, then logic and fairness dictate that liability thereto should be fully assumed by said Shipping Actor.<sup>77</sup>

Thus, the proposed system would be applied in all other cases, where loss or damage has occurred, but cannot be attributed to a specific Shipping Actor. It is in those cases where the RTDI would kick in and provide a simple answer as to how the liability needs to be assigned amongst the various Shipping Actors.

It goes without saying that in a globalized world of fast moving trade and shipping, it is imperative to undertake all possible steps to facilitate the free movement of goods. This assertion encompasses efficiency of shipping; customs barriers; cooperation on security issues,

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the principle of economy, *Frustra fit per plura quod potest fieri per pauciora* [It is futile to do with more things that which can be done with fewer]<sup>77</sup>).

<sup>77</sup> See generally J. SHAHAR DILLBARY, *Apportioning Liability Behind a Veil of Uncertainty*, 62 HASTINGS L.J. 1729 (2011) (explaining the nature of liability when more than one responsible party is involved).

but also refers to the issue of liability.<sup>78</sup> The liability and resulting cost of litigation naturally make insurance and the entire shipping process more costly and complex. As such, it is imperative to address this issue.

#### CONCLUSION

In the container age, products are being moved quite efficiently across countries and the high seas. But this efficiency is not prevalent in the liability domain. This article dealt with one part of the liability question, that which pertains to the liability of all the Shipping Actors of a given container.

The conventional regulative system fails to give a comprehensive and efficient solution to the reality of multimodal carries. The proposed modal, which rests on the RDTI, provides a simple and unified formula by which to calculate the relative liability of all Shipping Actors with respect to a specific shipment. The proposed index produces a unified measure that I have referred to here as a LM unit. Using this, all Shipping Actors are able to calculate and predict, with relative ease, the expected percentage of their relative liability for the damage or loss of a specific container. By allowing the parties to anticipate their relative liability with respect to a given shipment, the scope of litigation pertaining to questions of liability would be greatly diminished; thus, reducing legal costs and costs of the shipment at large. Furthermore, the proposed system is expected to not only reduce costs, but to attain distributive justice amongst Shipping Actors.

A multimodal system of shipping necessitates a multimodal system of liability as well. The RTDI does just that. This system can only apply if two overriding conditions are met: first that the loss or damage occurred during the shipping; and second that it is not possible to assign direct blame to any given Shipping Actor.

This system, if adopted, can help resolve disputes among the various Shipping Actors without the need to engage in costly legal procedures addressing their respective liability over a container shipment.

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<sup>78</sup> See generally Eamonn Butler, *Adam Smith - A Primer*, THE INST. OF ECON. AFF., July 2007 (explaining the influence of Adam Smith's idea of a free and open market without barriers).