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The Future of Carriage of Goods by Sea:

A Legal Analysis of Electronic Bills of Lading

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Summary

The commercial carriage of goods by sea is a vital part of global trade. Considering how the planet is constructed, this is unlikely to change. While technological advances are constantly made, the maritime sector has been limited due to the absence of a modern legal framework which covers electronic transport records. Therefore, *The Future of Carriage of Goods by Sea: A Legal Analysis of Electronic Bills of Lading*, aimed to examine the legal regime governing electronic bills of lading.

The research for this graduate thesis was conducted using the legal dogmatic method. The traditional primary and secondary sources of law were analysed to find legal solutions to the issues raised in this thesis. The research questions of the thesis included why electronic bills of lading are preferable and how they can be legally used. The analysis of this thesis proved that improved efficiency is the main reason to use electronic bills of lading. It also highlighted the lack of a functional legal regime governing these bills under English law.

An important aspect of this thesis was to examine the Rotterdam Rules as the solution to fill the legal vacuum. The recommendation of the thesis included the ratification of the Rotterdam Rules in relation to electronic transport records. However, this Convention is not likely to enter into force anytime soon. The author of this thesis concluded that individual states should primarily adopt UNCITRAL's Model Law into their national law. The purpose of this would be to give electronic bills of lading legal coverage while preparing their national laws for the technological solutions of tomorrow.

Sammanfattning

Kommersiella godstransporter till sjöss är en viktig del av den globala handeln. Med tanke på hur planeten är konstruerad är det osannolikt att det kommer att ändras. Samtidigt som det konstant görs teknologiska framsteg världen över har sjöfartsbranschen varit begränsad på grund av bristen på internationella rättsliga normer gällande elektroniska konossement. Därför syftade *The Future of Carriage of Goods by Sea: A Legal Analysis of Electronic Bills of Lading* till att analysera de rättsregler som reglerar elektroniska konossement.

Forskningen inför examensarbetet utfördes med hjälp av den rättsdogmatiska metoden. De traditionella primär- och sekundärkällorna analyserades för att hitta juridiska lösningar på examensarbetets problemformuleringar. Forskningsfrågorna berörde varför elektroniska konossement är att föredra och hur de kan användas i ett juridiskt perspektiv. Examensarbetet framhävde att förbättrad effektivitet är den främsta anledningen till att använda elektroniska konossement. Dessutom belyste diskussionerna bristen på adekvata rättsregler i förhållande till dessa under engelsk rätt.

I examensarbetet undersöktes även Rotterdamreglerna som lösningen för att fylla det legala vakuemet. Avhandlingens rekommendation innefattade ratificeringen av Rotterdamreglerna för att underlätta användningen av elektroniska konossement. Däremot kommer konventionen förmodligen inte att träda ikraft inom en snar framtid. Därför rekommenderade författaren att enskilda stater i första hand bör anta UNCITRAL:s lagförslag i sin nationella lagstiftning. Syftet med detta är att ge användandet av elektroniska konossement juridiskt stöd samtidigt som nationella rättsordningar förbereds inför morgondagens lösningar.

Preface

This graduate thesis highlights the end of my tenure as a student at the Faculty of Law, Lund University. Working with a complex and international field of law such as maritime law has been as rewarding and stimulating as anticipated. I decided to write my thesis on this topic because it seemed like the interesting challenge that I needed at the time. In addition to completing the challenge, I feel satisfied with the outcome.

I would like to thank my supervisor Olena Bokareva for her academic guidance and support. I would also like to thank all my friends with whom I have shared knowledge, experiences, and laughs in the process that led to this graduate thesis. Lastly, I would like to acknowledge my dearests, who have been there by my side throughout this journey.

23 May 2019, Lund

Hanif Rajabi

Abbreviations

CIF	Cost Insurance Freight
CMI	Comité Maritime International
COGSA 1971	Carriage of Goods by Sea Act of 1971
COGSA 1992	Carriage of Goods by Sea Act of 1992
ICC	International Chamber of Commerce
MLETR	Model Law on Electronic Transferable Records
P&I Club	Protection and Indemnity Club
SOGA	Sales of Goods Act of 1979
UNCITRAL	United Nations Commission on International Trade Law

1 Introduction

1.1 Background

Maritime trade is a critically important part of international trade. Logically, to trade various types of goods in a global manner there need to be a way of also physically transporting them across the globe. Since about 70 percent of the earth is covered with water, shipping the goods on huge ships will most likely remain one of the most cost and climate efficient ways of conducting this kind of global trade.

To put this into a clearer context, in 2017 10,7 billion metric tons of goods were loaded onto merchant ships worldwide, which is an increase of 1,2 billion metric tons in comparison to 2012. While dry cargo stood for most of the increase, there was also an increase in transport of natural resources by seaborne routes. More notably, while developing countries, especially in Asia stood for the major increase in seaborne trade, both transitional economies and developed countries also contributed. The last category of countries even went from a deficit to a surplus in seaborne trade within the given timeframe.¹

Obviously, the shipping industry is a very volatile business which is deeply connected to the world economy. As an example, trade of manufactured goods and agricultural products saw an increase during the same period.² The context that we should read these numbers in is simply that seaborne trade is huge, and even if there would be a decrease of the same proportions, it would not make the industry less important.

¹ UNCTAD, “World Seaborne Trade”
<https://stats.unctad.org/handbook/MaritimeTransport/WorldSeaborneTrade.html>, accessed 11 May 2019.

² WTO, “Trends in world trade: Looking back over the past ten years”,
https://www.wto.org/english/res_e/statis_e/wts2017_e/WTO_Chapter_02_e.pdf, accessed 11 May 2019.

To conduct maritime trade, especially when it comes to manufactured goods, bills of lading play an essential role. To give a brief notice on bills of lading³, it can be described as a physical document used in maritime trade as a kind of receipt and evidence of contract. Bills of lading have a long history and while global trade has developed and adapted new technologies, bills of lading are still mostly a paper document. Apart from practical issues, one main reason for this is legal uncertainties of electronic bills of lading in many jurisdictions. This uncertainty is the foundation of this thesis.

1.2 Purpose and Research Questions

The purpose of this thesis is to critically examine the legal framework of rules governing the use of bills of lading and see whether electronic bills are covered by the same set of rules. The underlying reason for this is to analyse how the legal regime meets the technological development and how these factors can be brought closer to each other. Considering that the Rotterdam Rules⁴ have not entered into force yet, it is also relevant to examine the changes that this Convention could bring to the current legal system. The research questions examined to reach this aim are:

1. In what aspects could the use of electronic bills of lading be preferred?
2. What is the current legal status for electronic bills of lading under English law?
3. How could the entry into force of the Rotterdam Rules effect the current legal status?
4. Which would be the best possible alternative for optimising the legal regime of electronic bills of lading?

³ See Chapter 2 for bills of lading.

⁴ United Nations Convention on Contracts for International Carriage of Goods Wholly or Partly by Sea, New York 11 December 2008, UNTC XI. Original text: Doc. A/RES/63/122; C.N.563. 2012.TREATIES-XI.D.8 of 11 October 2012 (Proposal of corrections to the original text of the Convention and to the Certified True Copies) and C.N.105. 2013.TREATIES-XI.D.8 of 25 January 2013 (Corrections to the original text of the Convention and to the Certified True Copies): Hereinafter the Rotterdam Rules.

1.3 Method and Material

The research behind this thesis has required the use of different methodologies to meet demands from several research questions. While analysing both the present legal regime and what it should become in the future (*de lege lata/de lege feranda*), the legal dogmatic method has been used. The legal dogmatic method can be described as a methodology derived from the field of legal science to solve legal scientific questions. The methodology is dependent on using the right research questions and thereafter analyse the commonly accepted sources of law in order to apply a certain norm on the circumstances.⁵

The primary sources of law used in this thesis are international conventions, preparatory works (*travaux préparatoire*), UK statutes, court cases from common law jurisdictions and non-mandatory instruments (soft-laws). To complete this thesis, secondary sources have been used too. A small portion of them simply relates to non-legal circumstances required herein. The rest consists of legal doctrine⁶, which consists of professional legal writings aiming to systemise and interpret valid law.⁷ In this thesis, the use of legal doctrine has been limited to books written by recognised scholars in their specific areas of maritime law. Concerning the international treaties covered here, most authors behind the legal doctrine used here were also involved in the *travaux préparatoire* of the said conventions.

It is of course preferred to use as many primary sources as possible while using the legal dogmatic method since legal doctrine can be criticised for its nature.⁸ Nevertheless, legal doctrine does play an important role. In this

⁵ Jan Kleineman, "Rättsdogmatisk metod" in Fredric Korling and Mauro Zamboni (eds.), *Juridisk Metodlära*, 2013, (21-46) pp. 21-24.

⁶ Aleksander Peczenik, "A Theory of Legal Doctrine", *Ratio Juris*, Vol. 14 No. 1 March 2001, (75-105) p. 75.

⁷ Ibid.

⁸ Ibid.

thesis, that role is: 1. Assist with interpreting primary sources and 2. Stimulate the discussion of *de lege feranda*.

Another practical aspect used for stimulating the discussions in this thesis has been to keep the analysis of the topics integrated with the descriptive parts. In this way the building blocks of the thesis are built from the foundation with the research questions and ending with the conclusions. As explained, the blocks are put in place by using the legal dogmatic method.

However, to some extent, it is inevitable to use a comparative methodology when analysing *de lege feranda*. The need for this is based on situations where the best solution for the future legal regime must be determined by comparing different legal regimes. This works differently from the dogmatic method where legal sources are analysed to give an answer to a legal question. Because of this, the comparative method is very sparsely used in this thesis to avoid inconsistency.

1.4 Previous Research and Delimitations

It is notable that there is a huge amount of research in the field of bills of lading in different jurisdictions. About a decade has passed since the signing of the Rotterdam Rules and there is a lot of research and commentaries available on the subject. This also applies to how bills of lading can be modernised, both legally and technologically. In all these areas, research from many prominent scholars has been used.

However, the main focus of this thesis is to examine in what manner electronic bills of lading will or should replace traditional paper ones. This focus obviously relates to both *de lege lata* and *de lege feranda*. In this area of maritime and commercial law the author of this thesis would like to highlight two legal scholars who have carried out relevant research. The first one is Miriam Goldby, who has written a great deal on electronic transport records in general. The most prominent work of hers ought to be *Electronic*

Documents in Maritime Trade: Law and Practice,⁹ which is a thorough analysis of the legal regime of electronic bills of lading. Secondly, Anders Møllmann gives a well-thought analysis of electronic bills of lading in his work *Delivery of Goods under Bills of Lading*.¹⁰

This thesis is limited to cover the development and most fundamental features of the bill of lading and how to create an equal electronic version. The research has been conducted in regard to English national law. International commercial law is obviously also concerned. The reason why the thesis is limited to English law is that this jurisdiction is the most important in maritime law and has seen more cases than any other jurisdiction. Moreover, English jurisdiction is often chosen by various parties in their contracts and many commercial maritime disputes are resolved in London.¹¹ Thus, changes in English maritime law will affect most other legal regimes.

1.5 Outline

The outline of the thesis is as follows. Chapter 1 consists of an introduction to the thesis and its content. This chapter contains a brief background, the purpose, the research questions to be answered, method, materials, state of research and delimitations.

Chapter 2 begins with introducing the reader to the bill of lading as a historical document. Thereafter, the legal framework covering the most distinct features of the paper bills of lading is presented. Lastly, the chapter is concluded with a presentation of approved systems that run modified versions of electronic bills of lading.

⁹ Miriam Goldby, 2013.

¹⁰ Anders Møllmann, 2017.

¹¹ Konrad Zweigert and Hein Kötz, *An Introduction to Comparative Law* (Tony Weir tr), 1998, pp. 41-42.

Chapter 3 is primarily about the status of electronic bills of lading under English law and the chapter contains discussions about the interpretation of the legal framework.

Chapter 4 concentrates on possible solutions to change or modify the status of electronic bills of lading, focusing on the Rotterdam Rules.

Finally, Chapter 5 consists of the concluding discussions of the thesis.

2 Legal Regime of Bills of Lading

2.1 History of Bills of Lading

It is most righteous to claim that the bill of lading as a transport document has a long and complicated history. For a very long time throughout history, maritime routes have been the natural option for transporting goods for trade. Even though maritime trade itself is an ancient routine, bills of lading have a more limited history. From what is known through secured historical records, it is almost certain that bills of lading were not known of in the eleventh century. In fact, the first records of bills of lading are from the end of the medieval era in Europe, around year 1350.¹²

What is of importance to note is that these early bills differ from their more modern counterpart in that they were not seen as negotiable instruments. The bills of lading found from the fourteenth century indicate that the given cargo was to be delivered to the person named on the bill of lading and not to the actual possessor of the physical document.¹³ This means that the first bills of lading actually only served as a receipt for goods shipped, like a receipt one may get when sending a parcel through their local postal service. In the same manner, the receiver of the cargo only had to prove his or her identity. Thus, the bill of lading did not serve as proof of entitlement.

Furthermore, it is noteworthy to make a remark about the contractual function of these early bills of lading. Bills of lading changed their functions as a result of changing maritime trade customs, and during the sixteenth century the contractual function of the bills started to change. At present, bills are usually

¹² Richard Aikens et al. *Bills of Lading*, 2016, pp. 1-2.

¹³ *Ibid*, pp. 2-4.

seen as *prima facie* evidence of the contract of carriage. In those days however, some bills had no individual terms. Some referred to the terms in a charter party contract while a few held individual terms. This can be a transitional period from what used to be, into the modern state of the bill.¹⁴

It is also important to note that most of the older bills were what we today would call "clean bills of lading", meaning bills that do not refer to any defects in the condition of the goods but simply the quantity. These customs did however come to evolve. By the early eighteenth century it was mandatory according to merchant customs to always note the quality as well.¹⁵ This gave a lot of power to the master of the ship, whose right to sign the bill was infringed by the case of *Grant v Norway*.¹⁶ It was held in the judgment that the master only has the right to sign upon the bill the goods that have actually been loaded upon the ship, hence protecting the carrier from fraudulent behaviour.

The transition to the modern bill of lading is believed to have begun with the case of *Lickbarrow v Mason*, where it was made clear that a bill of lading is actually a transferable document capable of transferring property.¹⁷ The foundation for this was however a presumption that the transfer of the bill was a sign to transfer the actual property, but this was still a rebuttable presumption.¹⁸ The landmark decision of *Barber v Meyerstein*¹⁹ gave the bill of lading a standing position as a document of title, thus making its holder the legal possessor of the goods. Herein Lord Hatherley confirmed that the bill should be seen as the symbol of possession of the goods.

¹⁴ Richard Aikens et al. *Bills of Lading*, 2016, pp. 4-6.

¹⁵ Daniel E. Murray, "History and Development of the Bill of Lading", 37U. Miami L. Rev. 689 (1983) pp. 690-692.

¹⁶ (1851) 10 CB 665, 138 RT 263.

¹⁷ (1787) 2 TR 63, 100 ER 35.

¹⁸ Richard Aikens et al. *Bills of Lading*, 2016, pp. 8-9.

¹⁹ (1866) L.R 2 C.P. 38; (1870) L.R 4 H.L. 317.

2.2 The Modern Bill of Lading

2.2.1 Characteristics and Legal Regime

The latest major international convention in force that governs bills of lading is known as the Hague-Visby Rules.²⁰ This Convention covers the rights and responsibilities of carriers and shippers, on the condition that the contract is covered by a bill of lading or a similar document of title. According to Article X of the Hague-Visby Rules, the Convention applies to all bills of lading covering carriage of goods between two different states. That is if the bill of lading is issued in a contracting state, if the carriage is from a port in a contracting state or if the Convention/law of a contracting state is the choice of law in the contract of carriage.²¹ If the Convention is applicable, it means that the whole text is and all attempts to deviate from the rules are considered null and void.²² Some nations like the United Kingdom incorporated the Convention into the national statute. In the UK this was done through the Carriage of Goods by Sea Act of 1971 (COGSA 1971).²³

Since there are various types of transport documents and records used for maritime shipping, sometimes many of these can be confused with what an actual bill of lading is. In this thesis, the mentioning of a bill of lading refers to either a bearer bill or an order bill. Both are negotiable types of bills of lading. To classify as a bill of lading, the bill must contain information about whom the goods are to be delivered to. In the case of the bearer bill, it is most simply the person who may present the bill of lading. However, an order bill will make the consignee, his order or assign or the shipper's order or assign the receiver of goods. The first type of order bill gives the consignee the

²⁰ Protocol amending the International Convention for the unification of certain rules of law relating to bills of lading, 25 August 1924, as amended by the Protocol of 23 February 1968, 1412 UNTS 127. Hereinafter: the Hague-Visby Rules.

²¹ Ibid, art. X.

²² Ibid, art. III (8).

²³ 1971 c. 19: Note that COGSA 1971 is to some extent more favourable for the shipper than the convention itself, as an example COGSA includes live animals and deck cargo as goods.

possibility to order or assign delivery to someone. The second type entitles the shipper to order whom the goods shall be delivered to. This means that the transferability of the bill is the common ground here.²⁴

2.2.2 Bill of Lading as a Receipt

Despite transferability being the common ground for the bills of, as presented in this thesis, the original and most basic function of a bill of lading is that of a receipt.

This function is obviously of vast importance to issues concerning carrier's liability in cases of damage or loss of goods. Article III (3) of the Hague-Visby Rules clearly states that the carrier, master, or an agent shall issue a bill of lading after receiving the goods. This bill of lading must contain some important information regarding the apparent quality, quantity and identification of the goods.²⁵ The next paragraph of the Rules states that this information shall be considered *prima facie* evidence of the goods that have been shipped. However, it must be noted that proof to the contrary is not admissible if the bill of lading has been transferred to a third party acting in good faith.²⁶

This apparently increases the importance for the carrier or his representative to state a representation of the goods that is as close to the reality as possible. However, as shown in *Grant v Norway*²⁷, at common law this obviously only applies to goods that have been received by the carrier.

A common way for carriers to protect themselves from wrong statements about quality or quantity of the goods is to insert "unknown clauses" and similar provisions. This can erase the quantity or quality stated in the bill of

²⁴ Sir Guenter Treitel and F.M.B. Reynolds, *Carver on Bills of Lading*, 2011, pp. 11-12.

²⁵ Hague-Visby Rules art. III (3).

²⁶ *Ibid*, art. III (4).

²⁷ (1851) 10 CB 665, 138 RT 263.

lading as *prima facie* evidence. This is done by writing that the number or condition is simply based on the statement of shipper.²⁸ One could also eliminate the bill as *prima facie* evidence by making it subject to a mate's receipt that contradicts what is stated in the bill of lading.²⁹ According to Carver however, one must see the intention behind these clauses. In some cases, the shipper's statement of quantity has been followed by the master's stamp and signature, thus superseding the clause.³⁰

2.2.3 Document of Title

After clarifying the bill of lading's function as a receipt, it is wise to return to its function as a document of title. Clearly, the ocean bill of lading is the only document of title that is currently and historically accepted as a document of title to goods.³¹ The intention behind this is that goods are moved far. To be able to sell them while the goods are in transit, there is a need of something symbolic to replace the physical presence of the goods. This is exactly what a bill of lading does. It is a symbolic delivery of the goods and might shift hands several times while the goods are still at sea. This makes it possible both to sell the goods and perhaps pledge the bill of lading as security to a bank.³²

As discussed earlier, this position was developed through the cases of *Lickbarrow v Mason* and later in *Barber v Meyerstein*, and was based on mercantile customs.³³ However, it is very important to note that the possession of the goods does not equal ownership. As shown by the

²⁸ See *New Chinese Antimony Co Ltd v Ocean SS. Ltd* [1917] 2 K.B. 664 where it was stated that the shipment contained "a quantity **said** to be 937 tons", hence not considered *prima facie* evidence.

²⁹ *Canadian and Dominion Sugar Co Ltd v Canadian National (West Indies) Steamship Ltd* [1947] A.C. 46.

³⁰ Sir Guenter Treitel and F.M.B. Reynolds, *Carver on Bills of Lading*, 2011, pp. 43–44.

³¹ This only applies under English common law, see Richard Aikens et al. *Bills of Lading*, 2016, p. 145.

³² Cf *ibid*, pp. 145-147.

³³ See Chapter 2.1 of this thesis.

statements in the earlier cases, the passing of property is totally dependent on the intention of the seller. The fact that someone transfers a bill of lading obviously creates a presumption of this intention. It can however be easily rebutted. The most common reason for retention by the seller is of course the absence of payment.³⁴ What this means is that the sale is almost always conditioned. The seller apparently has an intention to pass property to the buyer, but only if the buyer will fulfil the agreed payment.

As a concluding remark though it cannot be stressed enough that when bills of lading are referred to as negotiable, it is not in a strict sense. It simply means that they are transferable. A negotiable document in the strict sense means that the transferee can get a better title than the transferor had. As Lord Devlin expressed,³⁵ the transferee of a bill of lading cannot get a better title than the transferor. However, if it is transferred according to common practice it can give as good a title.

2.2.4 Contractual Effects

The next question to examine is how the bill of lading relates to the agreement to ship the goods. It has generally been stated that the bill of lading only evidences or contains the contract of carriage, without actually being the contract in question.³⁶ This can be seen in the Carriage of Goods by Sea Act of 1992 (COGSA 1992) s.5 (1) which seems to agree with the position held herein.³⁷

Obviously, there are always exceptions to the rule, but this is a brief introduction to bills of lading. The logical explanation behind this is that there is almost always an antecedent contract predating the issuing of a bill of

³⁴ Richard Aikens et al. *Bills of Lading*, 2016, pp. 152–155.

³⁵ See *Kum v Wah Tat Bank Ltd.* [1971] 1 Lloyd's Rep. 439.

³⁶ Sir Guenter Treitel and F.M.B. Reynolds, *Carver on Bills of Lading*, 2011, p. 97.

³⁷ Carriage of Goods by Sea Act, 1992 c. 50: intended to replace the Bill of Lading Act of 1855.

lading. Years ago, the contract would be made by the conclusive acts of the shipper presenting his goods and the carrier accepting them for carriage. Nowadays, the contract is usually sealed through advanced booking systems where the parties can agree on the shipping way in advance.³⁸ Concerning the antecedent negotiations, they must have been made with the intention to create an antecedent contract for them to enter into force as a binding contract.³⁹

However, if the parties to the contract have agreed that the terms in the bill are to supersede the antecedent contract, it will give the bill of lading contractual effect.⁴⁰ Carver, however, argues that if the terms of the bill contradict an express term in the antecedent contract, the latter will prevail. This means that the bill will have contractual effect but not contain the contract.⁴¹

Presently, this might be the case between the carrier and the shipper, but the scenario is obviously changed when the bill is transferred to a third party. For practical reasons, the common view is that the bill of lading will constitute the contract of carriage between these parties. As can be seen in the case of *Leduc v Ward*,⁴² this could work both in favour and against the transferee. What determines this would be whether the terms of the bill of lading are more beneficial for the transferee than those of the antecedent contract. Whatever the answer is, it is generally the terms of the bill that prevail.

³⁸ Sir Guenter Treitel and F.M.B. Reynolds, *Carver on Bills of Lading*, 2011, pp. 98-100.

³⁹ See *Datec Electronics Holdings Ltd v United Parcels Services Ltd* [2007] UKHL 23; [2007] 1 W.L.R. 1325 about the contractual intention in the preceding negotiations.

⁴⁰ See the case of *Armour & Co Ltd v Leopold Walford (London) Ltd* (1921) 3 K.B. 473.

⁴¹ Sir Guenter Treitel and F.M.B. Reynolds, *Carver on Bills of Lading*, 2011, pp. 107-108.

⁴² *Leduc v Ward* (1888) 20 Q.B.D. 475.

2.2.5 Transfer of Contractual Rights

The next issue to examine is how the contractual rights are transferred to the new holder. It has already been established herein that the bill of lading became a transferable document of title at common law in the late nineteenth century. Nevertheless, it was only the property of the goods that became transferable. The contractual rights remained with the original contracting partner, thus leaving the transferee without contractual title to suit. Of course, some solutions evolved at common law to deal with this, like the possibility of an independent right in tort or some cases bailment. Notably, these solutions were not as satisfactory as the original right.⁴³

At last, this was solved through statutory changes and the entry into force of COGSA 1992 which after the recommendation of The Law Commission contained some changes in the transferability of contractual rights.⁴⁴

Section 2(1) of COGSA states that both the lawful holder of an order bill and the one the goods shall be delivered to in accordance with the undertaking in the order:

...shall (by virtue of becoming the holder of the bill, or as may be, the person whom delivery is to be made) have transferred to and vested in him all rights of suit under the contract of carriage as if he had been a party to that contract.

With this quote the most basic functions of and regulations covering the modern bill of lading have been established herein. This will be an important foundation when analysing the various aspects of the electronic bill of lading since there must be something to compare to. However, before entering into the complexity of the legal regime of electronic bills of lading, it is of utmost importance to describe the technical solutions available in the market today.

⁴³ Richard Aikens et al. *Bills of Lading*, 2016, pp. 209–210.

⁴⁴ Nicholas Gaskell et al. *Bills of Lading: Law and Contracts*, 2000, pp. 122-123.

2.3 Available Electronic Solutions

Despite the current widespread use of paper bills of lading, in the year of 2019, there are obviously electronic solutions and variations available to be used. The Protection and Indemnity Clubs (P&I Club) are the carrier's insurers regarding open-ended risks such as war risks or third-party risks. In 2017, the UK P&I Club, managed by Tomas Miller, released a legal briefing about electronic bills of lading for their members. There are a lot of valuable insights to be gained from this release.⁴⁵

Firstly, the UK P&I Club mentions three main issue when it comes to using traditional paper bills of lading. The first one is the problem with delays. In many instances, the ship with cargo will arrive to the port of discharge before the bill of lading. This can cause serious costs in demurrage and storage costs, or administrative costs of issuing a letter of indemnity to release the goods against. The second problem is the cost of paper bills of lading. According to the club, the cost of producing and managing paper documents is estimated to be 15% of the physical transportation cost. This cost can be reduced with up to 90% if electronic documents are used instead. The last issue is about security. Paper documents can easily be forged, stolen or lost and this is an important issue that should not be bypassed easily.⁴⁶ However, it cannot be left without saying that electronic bills of lading can be forged too and have one specific flaw. There will always be one electronic record that is the original. Every time the electronic bill is sent it will really be a copy of the original record that is transferred. This creates a risk that is worth mentioning.⁴⁷ To deal with these issues the International Group of P&I Club has accepted three different electronic systems used for bills of lading. This

⁴⁵ UK P&I Club, *Electronic Bills of Lading*, https://www.ukpandi.com/fileadmin/uploads/uk-pi/Documents/2017/Legal_Briefing_e_bill_of_Lading_WEB.pdf, May 2017, accessed 20th of Mars 2019.

⁴⁶ Ibid, p. 4.

⁴⁷ See Lars Gorton et al. *Shipbroking and Chartering Practise*, 2009, p. 80.

approval is obviously important since carriers will not risk losing their P&I Cover. These three systems are Bolero, essDOCS and e-title.⁴⁸

2.3.1 BOLERO and essDOCS

Bolero has an entirely different background story compared to essDOCS. Bolero is a product of major commercial interests while essDOCS is the product of two MBA students. Nevertheless, they work very similarly to each other. E-title, however, has a different set up and will be explained separately.

Both systems try to imitate the work flow of the paper bill of lading. They use advanced legal frameworks and have binding multilateral agreements with the issuers of the bill of lading, meaning registered owners or bareboat charterers. They also have central registries for logging of the transfers of the bills and advanced security measures and insurances to protect against digital threats.⁴⁹

The bill is issued on the database and can be sent back and forth between the parties for acceptance, amendments, and transferring the bill. However, just like the paper bill, only one party can hold the bill at a time. Both systems rely on the principle of novation for passing contractual right. The parties contractually agree to novation through transfer of the bill, which passes the rights instead of relying on the original right from the first holder. BOLERO and essDOCS rely on the principle of attornment to pass the title of goods to the transferee. Each time there is a transfer, the new holder will receive a notification from the carrier that goods are held to the transferee's orders. Lastly, both systems can switch out the electronic bill of lading to a paper bill at any given point of the procedure.⁵⁰

⁴⁸ UK P&I Club, *Electronic Bills of Lading*, n 45, p. 2.

⁴⁹ Ibid, p. 5.

⁵⁰ Ibid.

In conclusion, it can be said that both are advanced digital registries that use contracts as their foundation and both require all involved parties to be registered to the given system.⁵¹

2.3.2 E-title

E-title is the newest of these systems and is created by former Bolero employees with the intention to create the final solution. It focuses on the secure transfer and negotiability of the document in an effective way and has an advanced legal framework like the other two systems with multilateral agreements. However, whereas the former ones are based on the principles of novation and attornment, e-title simply incorporates COGSA 1992.⁵² E-title also uses a peer-to-peer system for transferring the bill instead of a centralised system which is supposed to make the transfers more secure. The carrier can deploy the system via the available solution or implement it through a device placed behind their own systems. The carrier's customers will be able to access the solution through the carrier's portal. Like the other systems, the bill can only be held by one party at a time and can at any time be converted into a paper bill.⁵³

These solutions are all smart and innovative to an important issue. However, it would be unfair to claim that these three systems are enough. They are indeed functional and meet part of the demand on the market, but without covering all of the bases. This is largely due to the fact that these are closed systems. On the other hand, this is probably the main reason why these systems have been approved by the P&I Clubs, because a closed system provides more security. This applies to both losses from crime and from honest mistakes, since the existence and transfer of the records are strictly regulated and monitored. The result for the insurer is a minimised risk, which explains the endorsement of these solutions.

⁵¹ Ibid.

⁵² Ibid, p. 5.

⁵³ Ibid.

3 Legal Analysis and Concept of Electronic Bills of Lading

3.1 Main Statutes and Conventions

3.1.1 Hague-Visby Rules

As presented in the previous chapter, there are useful solutions available already for the usage of electronic bills of lading. However, as also demonstrated, those solutions are highly complicated contractual chains. This does not mean that they are complicated for the users. They nevertheless do require all parties to be registered to the specific system. In this chapter, general electronic bills of lading that are not part of an advanced contractual solution, will be discussed.

As explained earlier, the Hague-Visby Rules is the main international convention on bills of lading, incorporated through COGSA 1971 in the UK. According to Article 1 (b) of the Rules, the applicability falls upon bills of lading and other similar documents of title used in maritime trade.⁵⁴ The definition provided in COGSA 1971 neither gives a narrower, nor a more broad definition than what is originally stated in the Rules.⁵⁵ With this definition alone it could definitely be possible to place an electronic bill under the scope of application of the Convention.

However, the question of applicability upon electronic bills of lading has not been resolved in a case by the courts of UK. Also, within the legal literature, one could say that there is a divide in opinion. Firstly, the Law Commission stated as early as 2001 that COGSA 1971 is not applicable to electronic bills

⁵⁴ See art. 1 (b) of the Hague-Visby Rules.

⁵⁵ See s. 1 of COGSA 1971.

that were not already bound through contract.⁵⁶ Miriam Goldby however, has a different opinion. She means that the wording in COGSA 1971 is amenable to include electronic bills of lading and that the definition of document of title herein differs from the definition in common law.⁵⁷ Goldby is basing this argument mainly on the case *Rafaela S* and statements made therein that do confirm this viewpoint to some degree.⁵⁸ However, as Anders Møllman argues, that argument is to be seen as a reference point for including straight bills of lading. Furthermore, Møllman argues that the intention of the parties for the electronic bill to be a bill of lading according to COGSA 1971 would only be enough for a bill that was electronically transferred for printing. He means that a bill that was intended to remain electronic would be too far from the scope of application.⁵⁹

Since the situation is not clarified by the courts it is very difficult to answer correctly. One must simply look at the surrounding circumstances. It is indeed true that the definition here is not as strict as at common law. However, the statute in question is an older one, and at that time there were not a lot of thoughts about electronic bills of lading. It is a very progressive view that the mere intention to use an electronic bill just like a paper one would give it the same status under the statute. The *Rafaela S* was in fact indeed about the straight bills. From what is known so far from similar cases, the courts hold a conservative view in accepting electronic data in the same way as paper bills.⁶⁰ Therefore, it is a reasonable conclusion that electronic bills of lading presently cannot be regarded as bills of lading under the Hague-Visby Rules.

⁵⁶ The Law Commission, "Electronic Commerce: Formal Requirements in Commercial Transaction", 2001, 4.9.

⁵⁷ Miriam Goldby, *Electronic Documents in Maritime Trade: Law and Practice*, 2013, 6.14-6.16.

⁵⁸ *Ji MacWilliam Co Inc v Mediterranean Shipping Co SA (The Rafaela S)* [2005] UKHL 11; [2005] 2 A.C. 423.

⁵⁹ Anders Møllman, *Delivery of Goods under Bills of Lading*, 2016, p. 169.

⁶⁰ See the case of *Glencore International v MSC Mediterranean Shipping Company* [2017] EWCA Civ 365; [2017] 2 Lloyd's Rep 186, about using electronic PIN-codes for delivery of goods, which is discussed later in this chapter.

3.1.2 UK COGSA 1992

Concerning the applicability of COGSA 1992 on electronic bills of lading, the situation is slightly more simplified by statute. Firstly, it must be noted that the definition of a bill of lading is as unclear therein as in the Hague-Visby Rules. However, Section 1 (5) of COGSA 1992 contains the following information⁶¹:

The Secretary of State may by regulations make provision for the application of this Act to cases where [an electronic communications network] or any other information technology is used for effecting transactions corresponding to—

- (a) the issue of a document to which this Act applies;
- (b) the indorsement, delivery or other transfer of such a document; or
- (c) the doing of anything else in relation to such a document.

This alone proves that that COGSA 1992, in its current version is not applicable to electronic bills of lading. This is due to the simple fact that no regulation has been carried out yet to cover these types of bills.

3.2 Common Law and Other Regulations

The lack of applicability forces one to look at how electronic bills of lading would be treated at common law and under other statutes that cover electronic records in general.

⁶¹ See COGSA 1992 s. 1, to see the full definitions of documents it applies to.

3.2.1 The Receipt Function

As has been established, the Hague-Visby Rules make the bill of lading *prima facie* evidence for the goods that have been shipped. Likewise, proof of the contrary cannot be presented against a third party in good faith.⁶² COGSA 1992 takes this even further and does not even require the third party in question to have acted in good faith. It is in fact conclusive evidence therein.⁶³

Then in what ways is the holder of an electronic bill of lading in a disadvantageous position? As presented in the case of *The Mata K*, it is quite simple for the carrier to protect himself by using clauses that would to a great extent eliminate great parts of the bills evidentiary function anyway.⁶⁴ However, that is of course not always the case, and it could certainly be a huge disadvantage in some scenarios for some parties if the bill is not governed by statute.

Despite this, it would be incorrect to call the electronic bill of lading worthless as a receipt, because that would be a false statement. The only conclusion that can be drawn is that it is considered as neither *prima facie* nor conclusive evidence under the mentioned statutes. The Civil Evidence Act of 1995 clearly states that a document is anything which information of any description is recorded upon.⁶⁵ Likewise, the Electronic Communication Act of 2000 makes it clear that electronic signatures shall be admissible as evidence to prove the authenticity of the communication or data they are supposed to confirm.⁶⁶ Therefore, there is no legal obstacle to present an electronic bill of lading as evidence in a court of law.

Furthermore, since this document would most likely be the only evidence a third party has access to, it would not be unlikely for the courts to apply some

⁶² Art. III (4) of the Hague-Visby Rules.

⁶³ Section 4 COGSA 1992.

⁶⁴ *Agrosin Pte Ltd v Highway Shipping Co Ltd (The Mata K)* [1998] 2 Lloyd's Rep 614.

⁶⁵ Section 13 The Civil Evidence Act, 1995 c. 38.

⁶⁶ Section 7 Electronic Communication Act, 2000 c. 7.

rules concerning paper bills at common law to resolve disputes. This can however not be guaranteed and therefore for the time being it can only be said that electronic bills would count as any other type of evidence.

3.2.2 Document of Title

As discussed in Chapter 2, the paper bill of lading is seen as a document of title at common law. This is a unique status that has developed through at least two hundred years of mercantile customs. The drawback of this historical development according to Goldby is that no electronic transport record will reach this status without the intervention of legislators.⁶⁷ This situation can be explained with a simple circle. The lack of a legal framework will hinder a widespread use of electronic bills of lading and the lack of use will block legal development through mercantile customs.

In *The Delfini*, the true nature of the bill of lading as a document of title is explained. This is of vast importance to understand the differences with an electronic bill. It is elaborated that the bill of lading's status as a document of title in fact consists of two functions. The first of these is the ability to transfer constructive, or symbolic possession of the goods. Notably, this part is unique. The other function of the bill of lading is that it creates a *prima facie* evidence of the intention to pass property to the goods. However, it is in fact only the presumption of intention that is attributed to the bill and as discussed in Chapter 2, this is rebuttable by a contradicting statement in the sales contract.⁶⁸

As Goldby describes it, it is truly the intention of most sales contracts to pass property to the goods. Therefore, it is the first function as a symbolic key that

⁶⁷ Miriam Goldby, *Electronic Documents in Maritime Trade: Law and Practice*, 2013, 6.33.

⁶⁸ *Enichem Anic SpA v Ampelos Shipping Co Ltd (The Delfini)* [1990] Lloyd's Rep 252, CA.

is the most important characteristic of the bill of lading. This function makes it possible to pledge the bill as security for credits.⁶⁹

When it comes to the actual transfer of property, there is statutory law that could in fact also cover electronic bills of lading. The Sales of Goods Act (SOGA) of 1979 clearly states that the property of the goods is to pass when intended to by the parties.⁷⁰

The practical effect of this is that if intention to pass property exists, and cannot be rebutted, the electronic bill which holds an evidentiary value will fulfil the second function of the paper bill. However, it is probably necessary to make sure it is contained in the sales contract. That risks placing the new holder at disadvantage. Furthermore, this will not solve the problem caused by the disability of the electronic bill to pass constructive possession of the goods. As we have seen, this creates a problem with financing and obviously obtaining credits is fundamental for boosting trade in most sectors.

As well as not falling into the traditional common law definition of document of title, the presentation of an electronic bill of lading is not required for obtaining delivery. Similar to all other functions, this must be established contractually. The meaning of this is that the contract must provide that the carrier will only be discharged of its obligation to deliver if the delivery is made against a presentation of the electronic bill.⁷¹

Apart from the electronic systems mentioned in the previous chapter⁷², there are other ways to work around the current legal status. What links all these solutions together is the necessity to rest upon the principle of attornment.

⁶⁹ Miriam Goldby, *Electronic Documents in Maritime Trade: Law and Practice*, 2013, 5.40.

⁷⁰ Section 17 of the Sales of Goods Act, 1979 c. 54.

⁷¹ See Anders Møllman, *Delivery of Goods under Bills of Lading*, 2016, p. 177.

⁷² See Chapter 2.3 herein.

There must be a valid contractual relationship that creates the same status at each transfer.⁷³

The Comité Maritime International (CMI) has attempted to create a practical solution. By creating an electronic bill of lading that remains in the carrier's possession, the carrier will keep it for the legally entitled owner. In case of a transfer, the carrier will delete the previous private access key and send a new unique one to the new holder.

The great benefit of using this electronic bill of lading is that it is an open system and it can be used in a trade with any new party that wants to buy goods already shipped. The drawback is that both the transferor and transferee are totally at the mercy of the shipper. Also, this does not go well in hand with the current practice where the owner has full and total control over the bill of lading.⁷⁴

The fact that the carrier has full control over the electronic document does not mean that the carrier can do anything it wants to. It must also be noted that practices can change to some aspects and affect the law in the future. In a situation where the goods are in fact bulk cargo which are to be traded several times, this solution could be useful. However, in liner shipping, where the bill is transferred to a financier as security for a loan, it is much more problematic. This is because it will be a lot less likely to be able to pledge this kind of bill as security since the financier will not have full control over it.

3.2.3 Contractual Function

As discussed in the previous chapter, the paper bill of lading does not in general constitute the contract of carriage but does in fact only contain or

⁷³ H.P.A.J. Martius, "The Electronic Bill of Lading" in M.L. Hendrikse et al. (eds.), *Aspects of Maritime Law: Claims under Bills of Lading*, 2008, (311-318) pp. 311-313.

⁷⁴ *Ibid*, pp. 312-313.

evidence it. This naturally leads to the question of whether this is the case with electronic bills of lading as well.

In this aspect there is no reason whatsoever for an electronic bill to be treated differently. The reasoning behind this statement is that firstly, the contract is made before the issuing of the bill, no matter if it is an electronic or paper bill of lading. Secondly, as discussed earlier the electronic bill of lading has its full evidentiary value despite other issues.⁷⁵ Therefore it is correct to state that the bill can fulfil this function.⁷⁶

3.2.4 Transfer of Rights and Obligations

Next issue is regarding the contractual functions when an electronic bill of lading under an open system is transferred to a third party. As established in this thesis, COGSA 1992 does not apply to these bills. Usually, these issues are dealt with under the Contracts (Rights of Third Parties) Act of 1999. However, it is clearly stated that not only are bills of ladings exempted from this Act but also any electronic equivalence that could be used.⁷⁷ The consequence of this is that the issue must be solely answered by case law and other statutes.

As demonstrated in this thesis, one important result of COGSA 1992 is that it gives the transferee of a paper bill of lading title to suit. According to basic contractual principles that are applicable to contracts of carriage, the title to suit remains with the original contracting party. Thus, the result is that the new holder of an electronic bill of lading under an open system will not get the contractual rights and obligations transferred to him automatically.⁷⁸

⁷⁵ See Chapter 3.2.1 of this thesis.

⁷⁶ Rouhshi Low, "Replacing the Paper Bill of Lading with an Electronic Bill of Lading: Problems and Possible Solutions", 5 Int'l. Trade & Bus. L. Ann. 159 (2000), p. 169.

⁷⁷ See s. 6 (5) of the Contracts (Rights of Third Parties) Act, 1999 c. 31.

⁷⁸ Richard Aikens et al. *Bills of Lading*, 2016, pp. 209-210.

Møllman argues that many of the remedies used before COGSA 1992 at common law would not be a good choice. These include relying on an independent right in tort or possibly bailment. He concludes that the mere transfer of an electronic bill of lading would not be enough to be considered an attornment. It would require an actual attornment in advance from the carrier. Only then could transfers of right under bailment happen as a result of the principle of attornment and it seems that other scholars agree with this.⁷⁹

There might be an argument to apply the doctrine of *Brandt v Liverpool* contract when it comes to the transfer of electronic bills of lading.⁸⁰ In *Sewell v Burdick*, machinery was shipped to a Russian port at the Black Sea under a bill of lading stating the goods were deliverable to either shippers or assigns. The goods arrived to the warehouse in Russia, but they were sold a year later to pay for customs and other charges that occurred for the carrier. Meanwhile, the shipper had already pledged the bill of lading to his bank as security for financing. These events led the carrier to sue the bank for freight, but their case was dismissed because of the fact that the bank was only pledgee and they had not claimed the goods.⁸¹

This led to the implication that when the goods were delivered to the new holder in exchange for a bill of lading who also paid the freight, a new contract came into existence. In fact, this is what happened in the *Brandt v Liverpool* case where the transferees presented the bill of lading at arrival, paid the freight and accepted the goods from the carrier. The court held that a contract should have come into existence between these parties according to the terms in the bill. This meant that the transferees claimed both the rights to sue for damages but also liabilities for the same.⁸²

⁷⁹ See Anders Møllman, *Delivery of Goods under Bills of Lading*, 2016, pp. 172-173.

⁸⁰ Named after *Brandt v Liverpool, Brazil and River Plate Steam Navigation Co Ltd* 1 [1924] 1 K.B. 575, but in fact developed through earlier case law.

⁸¹ *Sewell v Burdick* (1884) 10 AC 74.

⁸² *Brandt v Liverpool*, n 80.

The question is whether this doctrine could be applied to an electronic bill of lading. The answer ought to be no. This would be for the same reason that the electronic bill of lading cannot be seen as a document of title. *Brandt v Liverpool* is based on the merchant custom that property to goods is intended to pass, and therefore the rights under contract should do too if the bill presented is indorsed to the transferee.⁸³ However, it would not be correct to claim that such mercantile custom exists. This makes the *Brandt v Liverpool* contract unrelated and not applicable upon the electronic bill of lading.

The result of this is that under English law, a new contract with the carrier must be sealed every time a bill of lading is transferred to a new holder. This is an important part of existing systems like BOLERO. This is done through a novation process where all involved parties agree to the termination of the old contract and the creation of a new one according to the terms contained in the bill of lading. What this really demonstrates is that an electronic bill of lading under an open system without the proper contractual framework cannot really be considered negotiable. This applies both in the strict sense and in the more specialised sense related to bills of lading.

It is also worth mentioning that using the principle of novation has actually started to appear even where traditional paper bills of lading have been used and the validity has been tried in court. In *Finmoon Ltd v Baltic Reefers Management Ltd* the involved parties had arranged a special solution where the carrier issued so called loadport bills of lading to the shipper. When the shipper was paid by the transferee, the shipper would return the loadport bills to the carrier after marking them as null and void. At the final stage, the carrier would issue disport bills of lading at the port of discharge.⁸⁴

The question that arose however, was whether these bills would give the transferee the same contractual rights against the carrier as the shipper had

⁸³ Ibid.

⁸⁴ *Finmoon Ltd v Baltic Reefers Management Ltd* [2012] EWHC 920 (Comm); [2012] 2 Lloyd's Rep 388.

under COGSA 1992. The court motivated that the loadport bill indeed lost its validity but was instead replaced by the disport bill of lading that was as binding and contained the same contract. According to the court, this was simply a mechanical solution that had no effect on the underlying contract of carriage. Hence, they found that the buyers indeed held the same rights.⁸⁵

What makes this relevant to some degree is that it could be possible in the long run to build some kind of trade custom if the possibility to do so is not removed. However, it is not very likely that it would have any major effect on electronic bills of lading since the characteristics could probably be said to differ. In the next section, the discussion will be about a case with some similarity concerning mechanics, but where these changes were made using data communications.

3.2.5 The Glencore Case

*The Glencore*⁸⁶ case in which judgment was decided in 2017 is probably the most relevant case in this field of law. It must be noted in this respect that the case itself does not concern electronic bills of lading. However, it does concern electronic communication for releasing the goods at the port discharge.

The dispute that arose in the case stemmed from a business relationship where Glencore used MSC Mediterranean to ship containers of drum cobalt briquettes from Australia to Antwerp in Belgium. In total, 70 shipments were made. The bills of lading used stated that one original bill of lading, duly endorsed was to be surrendered to the carrier in exchange for the goods or a delivery note. What really happened was that the bills were surrendered in exchange for an electronically sent release note that contained a PIN code to access the goods. This system that was operated by the port of Antwerp was neither mandatory nor was it used by all carriers delivering to the port. The

⁸⁵ Ibid, at 46.

⁸⁶ *Glencore International v MSC Mediterranean* [2017] EWCA Civ 365; [2017] 2 Lloyd's Rep 186.

system had worked smoothly between these parties for the first 69 shipments. However, when Glencore's local agent were to pick up shipment 70, two out of three containers were already picked up by unknown people assumed to be fraudsters.⁸⁷

Glencore issued a claim against MSC for the lost containers containing the expensive commodity cobalt. MSC raised a few different defences but Andrew Smith J ruled in favour of Glencore in the first instance. In the Court of Appeal, Sir Christopher Clarke, who delivered the only judgment⁸⁸ sorted the defences into four separate grounds that were to be examined. These were: whether the release notes and PIN codes could be considered symbolic delivery of the goods, whether these could be considered delivery orders, whether they could be considered ship's delivery order under COGSA 1992 and whether Glencore was estopped from contending delivery based on the previously successful uses of the PIN codes.⁸⁹

Concerning the first ground, His Lordship reasons around the example of the key to the warehouse. When symbolic delivery is made by handing out a key to a warehouse, it will be presumed that the goods are in the warehouse. However, in this case only one out of three containers were remaining in the warehouse. MSC would obviously state that since they had delivered the codes before the theft, the risk had already passed to Glencore. However, this argument seems to be invalid since it is unlikely that the parties intended on Glencore's contractual rights to depend on these circumstances.⁹⁰

It is further discussed that mere discharge does not constitute delivery, at least not in the general sense. It is said that in some cases delivery might be accepted if the goods are handed over to the port authority, but in this case, they were stored in at MSC Terminal. Furthermore, it is also discussed herein

⁸⁷ Ibid, 1–11.

⁸⁸ Lewison and Henderson LJJ agreeing.

⁸⁹ *Glencore International v MSC Mediterranean*, n 86.

⁹⁰ Ibid, 31–33.

that MSC at any given time until the actual access of Glencore's agent had the possibility to cancel the PIN codes.⁹¹

Even though they did not have the contractual right to do so, they had the actual power to do so.⁹² Also, nothing in the bill of lading stated that sending the PIN codes would be considered as delivery of the goods. Therefore, His Lordship held that the sending of PIN codes cannot constitute delivery.⁹³

Regarding the second ground it is firstly stated that "Delivery Order" has not been defined in the bill of lading and it could refer to different issues. It is unlikely that Glencore or any other shipper intended to surrender the bill without receiving the goods or any reasonable substitute.⁹⁴ To rely on this ground MSC would have needed a clearer definition in the bill of lading.⁹⁵

The Court of Appeal also dismissed the idea that the release note would constitute special delivery order that would exonerate the carrier from their liability to deliver in the events that someone else would enter the PIN first. The last defence, that provided Glencore was estopped from making a claim against MSC since the system used had been running smooth for over a year was dismissed. Glencore was obviously satisfied with the previous operations because they ran smoothly. They did not complain about the used system because they were not aware of it. This kind of silence can not be considered as Glencore's acceptance of freedom of liability for MSC in case something went wrong in the future.⁹⁶

Professor Andrew Tettenborn points out that the logic behind the last grounds is spot on but finds the discussion about symbolic delivery very interesting. His Lordship never stated that sending PIN codes could not be considered symbolic delivery, just that it was not the case herein because the lack of

⁹¹ Ibid, quoted from the judgment in the first instance.

⁹² Andrew Smith J refers to the words of Diplock J in *Barclays Bank Ltd v Commissioners of Customs and Excise* [1963] 1 Lloyd's Rep 81, where it is said that the shipowner must divest himself of all powers to control any physical dealings in the goods.

⁹³ *Glencore International v MSC Mediterranean*, n 86, 41-42.

⁹⁴ Ibid, 35-36.

⁹⁵ Ibid, 41-42.

⁹⁶ *Glencore International v MSC Mediterranean*, n 86.

contractual fundament. Tettenborn also means that the contractual intent is very important to note. Just because a locksmith gets the key to a warehouse does not mean he is intended to take over possession of the goods in there. However, Tettenborn thinks that the effect of this case will be carriers subtly amending their clauses. Consequently, the risk will pass to the cargo interested party at an earlier stage.⁹⁷

However, one could argue instead that this case highlights that the courts are open to the technological advancements, if the proper contractual framework is at hand. Even though exclusive control is hard to give with PIN codes, it seems acceptable if the parties have agreed to that symbolic delivery is enough in the contract of carriage.⁹⁸ In the end, this case cannot be said to make dramatic changes to the laws of electronic bills, but it shows that there are a lot of possibilities with contractual or statutory aid.

3.3 Electronic Remote Signature

Something else that does not in fact constitute an electronic bill of lading, but is close to one, is the possibility of remotely signing of documents. This is actually something which is being used quite frequently by many major carriers. In this section the user agreement provided by Maersk will be analysed to bring an understanding of how this works out smoothly in practice.⁹⁹

⁹⁷ Andrew Tettenborn, “Bills of Lading and Electronic Misdelivery”, [2017] L.M.C.L.Q. 479.

⁹⁸ *Glencore International v MSC Mediterranean*, n 86, see Christopher Clarke J at 41 on symbolic delivery.

⁹⁹ MAERSK LINE, “Electronic Document Printing Facility Agreement”, https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjXvsPbmd_hAhVplosKHTI3CkMOFjAAegQIBBAC&url=https%3A%2F%2Fwww.maersk.com%2F-%2Fmedia%2Fml%2Ffiles%2Fcountries%2FIndia%2Fimportant-information%2Fforms-certificate%2Fremote-printing-agreement.docx%3Fla%3Den&usg=AOvVaw1DXxUDhxM-ONxC5Ng1fqN4, accessed 20 April 2019.

These kinds of bills of lading are set up in a way where Maersk provides their customers with blank bills of lading forms, where they can print the bills upon and lastly use electronic signatures as the finishing touch.¹⁰⁰ The benefits of a system like this are obvious, it adds speed to the process. This specially applies to situations where the shipper is going to pass the bill away as soon as the carrier signs it, such as under a CIF¹⁰¹ contract.

There are some parts of these legal frameworks covering this process that are of interest. Obviously, the carrier will do what they can to protect themselves with digital security measures and contractual clauses. One of these goes into work when there is a printing error at the shipper's office. Apparently, if there is an error while printing a huge problem occurs. Because the contracts only allow a certain amount of printouts and to exceed these the shipper need Maersk's acceptance in exchange for a letter of indemnity and the destroying of the faulty paper. As Gaskell puts it, it is risky for the carrier to lose its control over the bill in such a manner.¹⁰² However, with the right security measures it is a viable option that can add some speed in comparison with traditional paper bills. Thus, the system of remote printing in this manner is not flexible enough to be considered as the real future of bills of lading.

3.4 Conclusive Remarks

As has been presented in this chapter, the legal status of electronic bills of lading under open systems is volatile and highly uncertain for the time being. As has also been established, in areas where the law is clearer, the user of an electronic bill of lading under an open system will be at disadvantage without the proper contractual work. This can be seen with the receipt function, where

¹⁰⁰ As established in Chapter 3.2.1 of this thesis, electronic signatures are just as valid for evidentiary purposes.

¹⁰¹ Incoterms 2010, Cost Insurance Freight: is a type of sales contract where the seller pays these expenses.

¹⁰² Nicholas Gaskell, "Bills of lading in an electronic age", [2010] L.M.C.L.Q. 233.

the electronic bill will suffice as evidence, but not necessarily as conclusive¹⁰³ or *prima facie* evidence like the paper bill of lading.

However, it is also very clear that it is simply not good enough to state that electronic bills are not favoured by the current legal regime. The world is moving forward and the lack of speed in this matter is very costly. The matter would only change at common law if there is a mercantile custom established, which obviously takes a long time. Even the usage of effective contractual clauses will not on its own make the electronic bill under an open system equal to the paper bill. It would require a lot of work at every issuance, transfer and delivery involving all parties. Therefore, there are only three real options left to deal with this issue in an effective manner.

The first one would obviously be to keep using paper bills of lading and put faith into that technological development would make its usage more effective. Despite its many faults and drawbacks, the trade with paper bills of lading is working and has done so for a long time. However, despite being a solution, it cannot be the only solution and not the recommended alternative. A more pragmatic approach would be to look at statutory changes since this could easily be done. The last option would instead be to look at new solutions beyond what is presently performable and available on the world markets.

Therefore, the next chapter will mainly discuss the legislative changes that would be necessary to open up for new solutions. This also involves examining and discussing which option would in fact be the best and more likely to be implemented.

¹⁰³ Depending on whether COGSA 1992 is applicable, which it is clearly not to electronic bills of lading.

4 The Future of Electronic Bills of Lading

4.1 The Rotterdam Rules

4.1.1 Introduction

Before presenting the Rotterdam Rules as a practical solution, they must be introduced and put into a context. As the situation looks right now, the function of uniformity in this field of law is being fulfilled by treaties that are not modernised. The first international convention that covers carriage of goods by sea is the Hague Convention of 1924. Despite this being a highly successful convention at the time of its entry into force, a lot has changed during the last hundred years. As discussed herein, these set of rules were slightly modified to become the Hague-Visby Rules in 1968. The problem is that these two treaties are still the ones covering trade when it is conducted between the major commercial powers. This is because the Hamburg Rules¹⁰⁴, that came into effect in 1990 failed to be embraced by any of the major commercial countries.¹⁰⁵

It can therefore be stated in a fair way that the Rotterdam Rules were intended to not just be the new convention, but to achieve what was failed by the preceding conventions. Apart from gaining maximum possible uniformity, a goal pursued by the International Chamber of Commerce (ICC), it can be said to have a few other pragmatic goals. These consist of meeting commercial needs, modernising the legal regime, expanding the scope of application and being evolutionary.¹⁰⁶ The last point is important in the sense that the new

¹⁰⁴ United Nations Convention on the Carriage of Goods by Sea, Hamburg 31 March 1978, 1695 UNTS 3, hereinafter: the Hamburg Rules.

¹⁰⁵ Michael F. Sturley et al. *The Rotterdam Rules*, 2010, pp. 1–3.

¹⁰⁶ *Ibid*, pp. 3–8.

convention does not need to radically change the whole regime, only update what needs to be updated.¹⁰⁷ Within the context of electronic bills of lading, the aim can be stated as evolving the legal framework into including electronic bills. This must clearly be considered an uncontroversial part of the convention,

As discussed in Chapter 2, at its core, it is possible to achieve this with two different methods. One is the equalisation method and the purpose of using this method is simply to fully equalise the electronic transport document to its paper counterpart. The other method is based on the transfer of rights. Using this method, each necessary function can be said to be transferred when needed to perform.¹⁰⁸

4.1.2 Electronic Transport Records

In the Rotterdam Rules, it is clearly the equalisation method that is being used through Article 8. Herein it is stated that the convention applies to electronic transport records if it is issued with the consent of carrier and shipper. Also, the issuance, exclusive control and transfer has the same effect as the issuance, possession, or transfer of a transport document. It must be noted that the exclusive control is of utmost importance to achieve equalisation. Just like there can only be one set of bills of lading in possession of the holder(s), the same must apply to electronic records.¹⁰⁹ What makes the usage of the equalisation method important is the following. In the Rotterdam Rules, the word electronic transport document is replaced with electronic transport record.

¹⁰⁷ Yvonne Baatz et al. *The Rotterdam Rules: A Practical Annotation*, 2009, p. 23.

¹⁰⁸ Michael F. Sturley et al. *The Rotterdam Rules*, 2010, pp. 48-49; This is also how the CMI Rules are designed to work and transfer property and contractual rights.

¹⁰⁹ Art. 1.21 of Rotterdam Rules states that: "The "issuance" of a negotiable electronic transport record means the issuance of the record in accordance with procedures that ensure that the record is subject to exclusive control." Art. 1.22: "The "transfer" of a negotiable electronic transport record means the transfer of exclusive control over the record."

The term itself means information in one or more messages issued by electronic communication under a contract of carriage.¹¹⁰ The purpose of this is obviously to show that the electronic transport record is not the same as the paper document, but it can have the same function through codification.¹¹¹ It is also a good demonstration of the historically major obstacle of electronic bills of lading, namely the document of title function. This is because it is simply impossible to physically hold, endorse or deliver an electronic record.¹¹²

Furthermore, Article 9 of the Rotterdam Rules contains the rules for the recognition of an electronic transport record. Summarising this Article, certain requirements need to be fulfilled to legitimise the electronic transport record. The contract particulars must contain the procedures for issuing, holding, and transferring an electronic transport record. It must also assure that it retains its integrity, the manner which the holder should demonstrate that he is the holder and finally the manner of providing confirmation that delivery to the holder has been affected or that the record is no longer valid. Again, the key point herein for these procedures is the singularity of the transport record. The singularity of the record refers to the exclusive control of it and the rights that come with that control.¹¹³

Finally, Article 10 of the Rotterdam Rules, which is the last article in Chapter 3, covers a very important function. This function is used by the available closed systems like Bolero. This is the possibility to replace the negotiable electronic transport record with a paper document. Article 10 provides means both for replacing a paper document with an electronic record and the other

¹¹⁰ Ibid, see art. 1.18.

¹¹¹ Ibid; See A/CN.9/621 - Report of Working Group III (Transport Law) on the work of its nineteenth session, 2007, 24.

¹¹² José Angelo Estrella Faria, "Electronic Transport Records" in Alexander von Ziegler et al. (eds.), *The Rotterdam Rules 2008: commentary to the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea*, (hereinafter *The Rotterdam Rules 2008*), 2010, (51-70) p. 61.

¹¹³ David Martin-Clark, "Electronic Documents and the Rotterdam Rules" in David Rhidian Thomas (ed.), *The Carriage of Goods by Sea Under the Rotterdam Rules*, 2010, (283-294) pp. 291-292.

way around. In the first scenario, the holder must surrender the bill of lading, or full set of bills, to the carrier who then issues an electronic record. If it is the other way around, the carrier will use a paper bill which states that it will replace the electronic one and thereafter the electronic one will cease to have any effect or validity.¹¹⁴

4.1.3 Definitions and Form

Before discussing how each essential function of the paper bill of lading attaches to the electronic bill according to the Rotterdam Rules, it is important and useful to explain some definitions. To begin with, the Rotterdam Rules introduce a new term which is the “controlling party”. This will be explained more thoroughly together with the document of title function. Nevertheless, to explain it briefly herein it simply refers to the party that has the right to exercise control over the goods.¹¹⁵ Generally speaking, the controlling party is the shipper according to Article 51.

Another important definition that is frequently used in relation to the regime concerning transport documents and electronic transport records is “contract particulars”. According to the Convention it refers to any information relating to the contract of carriage or the goods stated in the transport document/record.¹¹⁶

Furthermore, it is important to recognise the fact that the Rotterdam Rules, provide a written form requirement on certain details, agreements and notices.¹¹⁷ The aim of this is to create certainty and uniformity. Obviously, wherever a notice, confirmation, consent, agreement, declaration or other communication is required to be in writing, the requirement can be met through electronic communication instead. However, to use electronic

¹¹⁴ See Yvonne Baatz et al. *The Rotterdam Rules: A Practical Annotation*, 2009, p. 27.

¹¹⁵ See art. 50 of the Rotterdam Rules.

¹¹⁶ Ibid, art. 1.23.

¹¹⁷ Ibid, art. 3 counts the specific occasions where the information must be in written form.

communication, there must be consent between the parties involved. The definition of the consent is not clarified in Article 3, but presumably there is a consent where consent to this usage exists in relation to other provisions.¹¹⁸ Strategically, this means that consent should be presumed to exist if both parties have agreed to use electronic transport records. However, this is obviously a clearly rebuttable statement.

4.1.4 The Receipt Function

Chapter 8 of the Convention is named after and partially deals with transport documents and electronic transport records. It should however be noted that the few articles in this chapter do not cover all issues concerning these documents and records, but merely the most fundamental issues.¹¹⁹ One of these is of course the equivalence of the receipt function of the classical bill of lading.

Firstly, Article 35 covers the issuance of the transport document or electronic record. Note that this article solely refers to transport documents or records that evidence the contract of carriage and not just “mere receipts”.¹²⁰

The shipper is entitled to obtain either one of these from the shipper, unless otherwise is agreed or the custom, usage or practices of the trade contradicts this. It could be either a negotiable or a non-negotiable one. The same applies for the issuance of a negotiable document, where the customs prevails over contract. Since a seller on shipment terms is obliged to deliver a negotiable transport document under English law¹²¹, it is important for the shipper to pay attention to the terms. The failure to present the appropriate document could

¹¹⁸ Hannu Honka, “General Provisions” in Alexander von Ziegler et al. (eds.), *The Rotterdam Rules 2008, 2010*, (27-38) p. 30.

¹¹⁹ The equivalence of the document of title function is presented under Chapters 9-10 while the transfer for rights are presented under Chapter 11 of the Rotterdam Rules.

¹²⁰ Tomotaka Fujita, “Transport Documents and Electronic Transport Records” in Alexander von Ziegler et al. (eds.), *The Rotterdam Rules 2008, 2010*, (161-188) p. 165.

¹²¹ See *Soproma SpA v Marine and Animal By-Products Corp* [1966] 1 Lloyd’s Rep 367.

affect the seller's right to obtain payment.¹²² The logic behind this is of course that in some trades, the usage of negotiable documents is not necessary. Hence, it is illogical to make the shipper entitled to one anyway. As noted, the drawback of this is that the shipper must be very cautious when drafting contractual terms. This is because the contract of carriage could lead to consequences that affect the sales contract.

Regardless of the type of transport document or electronic record that is issued, the evidentiary value of it is based on the circumstances in the following articles. Article 36 lists the requirements¹²³ that must be included in the contract particulars. Article 36.1 contains the information provided by the carrier: description of goods, leading marks for identification, number of packages or pieces; or quantity of goods. Also, if furnished by the shipper, the particulars should contain the weight. Article 36.2 contains information about the carrier and the carrier's remarks about the goods. The term "apparent order and condition of the goods" is used, and this is established to be based on a reasonable external inspection.¹²⁴ The third paragraph covers general information like a possible consignee, port of delivery, port of loading. These provisions in the third paragraph are based on whether there is an agreement beforehand and they are not mandatory otherwise.

However, according to Article 39, the transport document or record does not lose its validity if part of the information in Article 36 is missing. As an example, the goods will simply be assumed to have been in good order if their order is not stated. Furthermore, Article 40 of the Rotterdam Rules provides the carrier with an opportunity to qualify statements about Article 36 in

¹²² Yvonne Baatz et al. *The Rotterdam Rules: A Practical Annotation*, 2009, pp. 99-100.

¹²³ Note that these lists are not exhaustive as there are other articles setting out specific requirements applicable for certain situations in the rest of the Convention.

¹²⁴ See art. 36.4 of the Rotterdam Rules; *Owners of Cargo Lately Laden on board the David Agmashenebeli v Owners of the David Agmashenebeli (The David Agmashenebeli)* [2003] 1 Lloyd's Rep 92.

certain situations, e.g. where the carrier could not inspect the order and condition of the goods.¹²⁵

Finally, Article 41 contains the provision on the evidentiary effect of the contract particulars. The general rule according to Article 41 (a) remains¹²⁶ that the transport document or electronic record is *prima facie* evidence of the carrier's receipt of goods. Furthermore, Article 41 (b) provides that the document/record becomes conclusive evidence in the hand of a transferee. The same applies to a situation where a non-negotiable document or record is required to be surrendered to obtain delivery. This also applies to non-negotiable documents and records concerning the information in Article 36 paragraphs 1-2 of the Rules, if the information has been furnished by the carrier. Obviously, this all goes without saying that these provisions are only valid if the carrier has not qualified the contract according to Article 40.

As has been demonstrated, the Rotterdam Rules are similar to COGSA 1992 since they do not require the transferee to be acting in good faith for the bill to constitute conclusive evidence.¹²⁷ Because of Article 8 of the Rotterdam Rules, electronic bills of lading are governed by all the provisions in the Convention that applies to paper bills of lading. This means that this legal regime would not only govern electronic bills, but also make them equal to paper bills regarding their evidentiary roles. Also, the fact that the carrier can use qualifying clauses cannot be said to undermine the usage of electronic bills. These clauses are indeed already allowed under English law and widely used for paper bills. The only apparent drawback is that the carrier could avoid issuing an electronic (negotiable) bill of lading according to Article 35 of the Rotterdam Rules. However, this is of minor importance since the need for a negotiable record will likely not exist if it is not within the customs of the trade. Consequently, electronic bills of lading still have more value concerning the receipt function with the Rotterdam Rules than they do

¹²⁵ Simon Baughen, *Shipping Law*, 2012, pp. 150–152.

¹²⁶ Cf art. III (4) of the Hague-Visby Rules.

¹²⁷ As opposing to *ibid*.

without. Nevertheless, as already established, the receipt function is still the easiest function to transfer from a paper bill of lading to an electronic bill of lading under English law. The same is true when it comes to evidencing the contract of carriage. Thus, the discussion must continue to cover parts that are more pressing for the cargo interests, like the document of title function.

4.1.5 Document of Title

As discussed in Chapter 3.3.2, the electronic bill of lading is not a document of title at common law. It is also not a document of title to the degree that it must be presented to obtain delivery of the goods. To understand the power vested in electronic bills of lading under the Rotterdam Rules, one must understand the difference in sales and carriage concepts. Because, even though the Convention obviously deals with sale concepts, for various reasons it does not really include them in its regime.

As Professor van der Ziel stated, there are usually three distinct rights that fall into the area between sale and carriage concept that must be clearly distinguished. Firstly, it is the right of disposal of the goods, which basically means preventing the passing of property from the seller even though the seller is no longer in possession of the goods. The reason for this is simply to be able to secure payment before letting the ownership transfer to the buyer.¹²⁸ Secondly, there is the right of stoppage *in transitu*, which translates to the right of the unpaid seller in a sales contract to resume possession of the goods after transferring possession to the buyer. This right obviously only exists in certain situations, e.g. where the buyer is insolvent.¹²⁹

¹²⁸ Gertjan van der Ziel, “Delivery of the Goods, Rights of the Controlling Party and Transfer of Rights” in David Rhidian Thomas (ed.), *A New Convention for the Carriage of Goods by Sea – The Rotterdam Rules*, 2009, (242-257) p. 245.

¹²⁹ *Ibid.*

The third right however is the right of control¹³⁰, which is instead directly related to the contract of carriage. Before the adoption of the Rotterdam Rules, international maritime conventions left this issue unsolved as it was deemed that the bill of lading managed this role well enough.¹³¹

Basically, a seller can hold a range of different rights under the sales contract, but the value of these rights will depend on the right of control. In order to impose these rights, the seller who shipped the goods, must first regain control of the goods. Thus, even though the Convention does not govern what is or is not a document of title, it does in fact manage the more pressing issue of who has the right to control. This is of vast importance for establishing legitimacy for electronic bills of lading in the sense that it creates the necessary equivalence to the paper bill of lading.

4.1.5.1 The Controlling Party

Naturally, it is of importance to examine whom the controlling party can be and what specific powers are vested upon this party. The general rule at hand makes the shipper the controlling party and the shipper can transfer this control to another party.¹³² There are three different exemptions to this rule stated in Article 51.2-4. The one that is relevant for this thesis is Article 51.4, which simply covers who the controlling party is when an electronic transport record is issued.

Understandably, the holder of the electronic transport record is the controlling party according to the Convention. This could always, or at least at first instance be the shipper. If the holder transfers the bill in accordance with the

¹³⁰ This is the right to amend the terms of contract of carriage, which the “controlling party” under the Rotterdam Rules, meaning usually the shipper holds.

¹³¹ Gertjan van der Ziel, “Delivery of the Goods, Rights of the Controlling Party and Transfer of Rights” in David Rhidian Thomas (ed.), *A New Convention for the Carriage of Goods by Sea – The Rotterdam Rules*, 2009, (242-257) p. 246.

¹³² See art. 51.1 of the Rotterdam Rules; Notice that the legal procedure for this transfer is not covered by the Convention but instead left to regulated by national law.

rules provided by the Convention, the new holder becomes the controlling party and the transferee must demonstrate its possession to exercise control.

Firstly, the holder can in accordance with Article 50 exercise the power to modify and give instructions to the carrier regarding the goods.¹³³ Apart from that, the controlling party holds the right to obtain delivery at the port of call, or in case of inland carriage, any place on the route. The controlling party also holds the power to replace the consignee with anyone else, including oneself.

It is important to separate these rights from the rights arising from the sales contract, because the controlling right is solely linked to the contract of carriage. One important reminder of this is the given period wherein the controlling party may exercise its control. The period of time is directly linked to the period the carrier has responsibilities according to Article 50.2 of the Convention. A novelty of the Rotterdam Rules is that this period depends on the contract of carriage. If the contract stipulates a door-to-door arrangement, the period is from the time the carrier receives the goods until the time of delivery.¹³⁴

It is however important to observe that there are other limitations to the extent the carrier must act in accordance with the instructions of the controlling party. Firstly, the carrier is obliged to make sure that the party in question is in fact entitled as the controlling party. Secondly, there are restrictions to not interfere with the carrier's regular operation and hinder it from running smoothly.¹³⁵ Moreover, the carrier may be entitled to reimbursement for

¹³³ The main point of this right is regarding instructions that could be about how the goods should be stored, handled, etc. However, it is not limited to these kinds of instructions.

¹³⁴ This is an important regulation considering the Conventions supposed role as a multimodal transport convention. Older conventions do not have this long coverage. As an example, art. I (e) of the Hague-Visby Rules states that the coverage is from loading to discharge, or "tackle-to-tackle"; Michael F. Sturley et al. *The Rotterdam Rules*, 2010, pp. 86-87.

¹³⁵ Stefano Zunarelli and Chiara Alvisi, "Rights of the Controlling Party" in Alexander von Ziegler et al. (eds.), *The Rotterdam Rules 2008*, 2010 (219-238) p. 229.

additional costs and to be indemnified in certain situations due to following the instructions of the controlling party.¹³⁶

4.1.5.2 Obtaining Delivery

Chapter 9 of the Rotterdam Rules covers issues concerning delivery of the goods. Once again, the focus is on situations where an electronic transport record is issued. When the goods have arrived and are cleared for delivery, the holder of the electronic transport record may obtain delivery by demonstrating the transport record and showing that it has been obtained in accordance with the rules in Article 9.¹³⁷ If this cannot be shown the carrier should refuse to deliver according to the Convention.

The first requirement corresponds with English law for paper bills of lading,¹³⁸ while the need of identification would constitute a change to the law. The requirement of proper identification is however very useful in regard to electronic transport records that do not need to be presented to obtain delivery. Obviously, the carrier needs to know to whom it delivers to.¹³⁹

4.1.5.3 Does the Convention create the necessary equivalence?

It is important to note that the answer to this question to some extent is decisive to the efficiency of the Rotterdam Rules, at least in relation to electronic bills of lading. As already presented in this thesis, the document of title function can be defined in various ways. Thus, the answer to this question may differ as well.

¹³⁶ To clarify that the controlling party holds control over the goods and not over the carrier; See art. 52 of the Rotterdam Rules.

¹³⁷ See art. 47 of the Rotterdam Rules.

¹³⁸ See *London Joint Stock Bank Ltd v British Amsterdam Maritime Agency Ltd* [1910] 11 Asp MLC; COGSA 1992.

¹³⁹ This is not something new under English law though, see *The Sormovskiy 3068* [1994] 2 Lloyd's Rep 266.

It is however clear that at least at English common law, the function of the bill of lading as a document of title can be divided into two features. Firstly, it grants symbolic possession of the goods. Secondly, it creates the presumption of intention to pass property. The first function is considered unique. What can truly be stated about both these functions is that they are related to the sales contract and the Rotterdam Rules do not include the sale concept. Consequently, the Rules cannot replicate these functions stemming from an area of law that they are not intended to govern. The question is instead whether the Rules can make electronic bills of lading to be fully functional in practice through a different approach.

The Convention only focuses on the legal concept of contracts of carriage. What the Convention does is simply moving the powers of the paper bill of lading and vesting them into the controlling party. The result of transferring the power to the controlling party is that it is instead possible to take the same actions independent of the format or existence of the bill of lading.

Obviously, the function of symbolic delivery, or constructive possession, will nevertheless not be achieved. However, without the right to control the symbolic possession would not be valuable. Thus, it could even be a fair assumption that the right of control could be enough to pledge the electronic bill as security for financing.

As the holder of the electronic bill of lading, the financier is the commander of the goods while the carrier is responsible and can as the controlling party control where the goods will be delivered to anyway.¹⁴⁰ Thus, it is fair to say that the Convention does succeed in creating the equivalence of the paper bill of lading.

¹⁴⁰ There might be some practical issues arising from how to deal with the goods since delivery should be accepted, like what to physically do with the goods, but these logistical issues are not new to the industry.

4.1.6 Transfer of Rights and Obligations

Having established how electronic bills of lading would function with the Rotterdam Rules, the next step is to see how the contractual rights and obligations can be transferred when the electronic bill of lading is transferred.

The process of doing so is concisely but clearly described in Chapter 11 of the Convention. To transfer the rights of the contract, the electronic transport record simply needs to be transferred. Obviously, the procedure must be in accordance with the provisions provided in Article 9 of the Rotterdam Rules.¹⁴¹ This is a smooth transition together with the transfer of control.¹⁴² However, the obligations of the contract do not necessarily have to be transferred just because of the transfer of the electronic transport record. According to Article 58.2, a holder of a negotiable transport record that is not the shipper does not assume contractual obligations solely for being the holder.¹⁴³ The holder needs to exercise its rights under the contract to assume these obligations. Furthermore, the obligation must be imposed on that party by the contract and be incorporated on or ascertainable from the contract of carriage.

Sturley and others illustrates how this would work in practice quite effectively. As an example, a normal scenario is a bank providing a loan to a merchant to finance buying goods. The electronic bill of lading is transferred to the bank, which later gets paid in full and returns the bill to the merchant before the goods have arrived. The bank has neither exercised any right under the contract of carriage in this scenario, nor have they obtained any obligations.¹⁴⁴

¹⁴¹ Art. 57.2 of the Rotterdam Rules.

¹⁴² This creates an equivalence to the paper bill of lading in COGSA 1992.

¹⁴³ This does not apply for liability for failing to provide needed information to the carrier in accordance with art. 55 of the Rotterdam Rules.

¹⁴⁴ Michael F. Sturley et al. *The Rotterdam Rules*, 2010, pp. 306-307.

However, the opposite would occur in the following example. In this scenario, the buyer becomes insolvent, thus forcing the bank as controlling party to redirect the goods to another consignee to secure payment.¹⁴⁵ In this case, the bank has used a right they have acquired from the contract of carriage. Because of that, they have also taken upon themselves the contractual liabilities that go with the contract.

The Rotterdam Rules provide both a smooth transfer of rights and a reasonable transfer of obligations. It is strongly for the cargo interested party's benefit to acquire the rights solely by transfer, but not receiving obligations until the rights are "activated". On the other hand, the Convention does truly intend to balance out the relationship between the parties by making the cargo interests slightly more powerful. It is also logical to not disturb existing and efficient business practices. There is no reason whatsoever for, as an example, a financier to become liable when it has only provided a loan and held the electronic bill of lading as safety for it.

Lastly, it is important to note that the holder will not necessarily inherit all obligations that could arise from the contract of carriage. It can sometimes be hard to determine whether a certain obligation could also be imposed on someone else besides the shipper. If this cannot be read from the wording, then the nature of the contract or circumstances may clarify the matter.¹⁴⁶

4.1.7 Entry into Force

Before the legal regime of the Rotterdam Rules can be applied at all the Convention needs to enter into force. This will happen a year after the twentieth United Nations (UN) Member State has ratified, approved, accepted or acceded the Convention.¹⁴⁷ As of now, only four countries have done so and none of them is a major commercial power. The Department of

¹⁴⁵ Ibid.

¹⁴⁶ Cf *ibid*, p. 308.

¹⁴⁷ Art. 94 of the Rotterdam Rules.

Transportation in the UK has expressed that they would like to see other major commercial players ratify before the UK accedes. This could be said to be the position of most states that are positive to the Convention but wish to not be isolated in a new legal regime which will not be applied by any major powers. Basically, the world is waiting for the US to ratify it, but nothing has happened for now and it is probably not prioritised.¹⁴⁸

If another country like China¹⁴⁹ would take the lead, they would probably bring a whole lot of Asian states with them and give legitimacy to the Convention. However, as it may turn out, nothing is indicating that the Rotterdam Rules will enter into force anytime soon and therefore it is important to look at other viable options. At the same time, the Convention cannot be declared a failure yet and must therefore still be considered in the discussion about the future of electronic bills of lading.

4.2 Beyond a Unilateral Solution

4.2.1 National Law

Regardless of whether the Rotterdam Rules enters into force, national legislation should remain a reliable option that should not be dismissed. This is not only an issue about whether it will be practically possible to make use of the Rotterdam Rules, but also if the Convention is good enough to be used. In a major maritime jurisdiction like England, which is the most selected jurisdiction for dispute resolutions, it is important to have a relevant and modern legal framework. Otherwise there is obviously a risk that the jurisdiction might become obsolete in a near future.

¹⁴⁸ Miriam Goldby, “*Legislating to facilitate the use of electronic transferable records: A case study*,” (UNCITRAL February 2011) https://www.uncitral.org/pdf/english/colloquia/EC/Legislating_to_facilitate_the_use_of_electronic_transferable_records_-_a_case_study_.pdf, accessed 8 May 2019.

¹⁴⁹ China was an active party in the preparations of the Rotterdam Rules, as an example see: A/CN.9/WG.III/WP.99 - Transport Law: Preparation of a draft convention on the carriage of goods [wholly or partly] [by sea] - Proposal by the Government of China on Delivery of the Goods when a Negotiable Transport Document or a Negotiable Electronic Transport Record has been issued and on Goods Remaining Undelivered, 2007.

Goldby presents some valid arguments against the Convention in her work for the United Nations Commission on International Trade Law (UNCITRAL). She states that the opponents to the Convention claims the uncertainty the Convention brings would make the choice of English law and jurisdiction less popular in dispute resolutions. That is a valid argument. Goldby, herself is not necessarily against the Convention, but argues for the importance to modernise national legislation. This is primarily done through amending COGSA 1992, but to create full functional equivalence it would require changing statutes covering all commercial aspects of the bill of lading.¹⁵⁰ The most important would obviously be to make sure the electronic equivalent version would grant symbolic possession to the goods.

A final option to examine, which is a newer option, is the UNCITRAL Model Law on Electronic Transferable Records (MLETR).¹⁵¹ The meaning of model law is simply that it is a something recommended for states to adopt in their national laws and is not binding for any party. However, it cannot be ignored that firstly, MLETR is a new and modernised option in comparison to every other discussed solution. Secondly, it is a thorough model law that covers many aspects of an electronic bill of lading. The aim of it is to create functional equivalence, and it stipulates that a transferable electronic record obtains the same status as a paper document, if the record is secure enough.¹⁵²

The law firm Clyde & Co did examine the model law on behalf of the ICC Banking Commission and recommended its adoption by states. According to the report, the MLETR is a positive step forward in modernising the legal regime of electronic bills of lading. Nevertheless, the model law needs to be adopted by countries before it can change anything. A large-scale adoption of

¹⁵⁰ Miriam Goldby, *“Legislating to facilitate the use of electronic transferable records: A case study*, 2011, p. 12, see n 148.

¹⁵¹ Adopted by the UN General Assembly: General Assembly Resolution 72/114, Model Law on Electronic Transferable Records of the United Nations Commission on International Trade, A/RES/72/114 (18 December 2017).

¹⁵² See Chapter II of MLETR.

MLETR is however unlikely, unless the ICC or other similar organisation is prepared to campaign for it.¹⁵³ The UNCITRAL Working Group pointed out at its last meeting that functional equivalence could be achieved through other techniques, even though this would be the most effective. The Group reflects that the changes could have an international breakthrough even without being adapted by most concerned nations. This would happen through recognition.¹⁵⁴

The truth however is that some jurisdictions¹⁵⁵ already allow electronic bills of lading an equal status through statutory change and so far, this has not resulted in any pressure on others. This does not mean that it will not push for advancement in a possible near future though. What makes MLETR a more likely solution in comparison with the Rotterdam Rules is that each state can amend and adopt it according to their national legal tradition. Also, it must be noted that it only governs transferable electronic records and is therefore not a controversial model law. However, it is at the same time not a prioritised area to cover, perhaps because it is not seen as a pressing issue in an era with many volatile and sensitive issues. The urgency for dealing with other related and unrelated topics does not however justify ignoring a question of this magnitude.

4.2.2 New Technology

While all the solutions and changes mentioned above are dependent on lawmakers in one way or another, maybe the most beneficial solution could come from a totally different place. Of course, it is beyond the scope of this legal thesis to speculate in the technological advancements of the future. However, it is of importance to simply highlight one possibility that could be

¹⁵³ Clyde & Co, *The Legal Status of Electronic Bills of Lading*, https://www.clydeco.com/uploads/Files/The_Legal_Status_of_E-bills_of_Lading_-_ICC_and_Clyde_Co.pdf, accessed 8 May 2019.

¹⁵⁴ A/CN.9/897 - Report of Working Group IV (Electronic Commerce) on the work of its fifty-fourth session, 2016, p. 14.

¹⁵⁵ See n 149.

a effective option soon and is already in use in other business sectors. This is the “blockchain” technology, promoted by Professor Koji Takahashi amongst others as a good and secure replacement for paper bills of lading. This technology was developed with the crypto currency Bitcoin. It is presented as a fast and secure way to transfer information which meets the requirements needed to replace the bill of lading.¹⁵⁶ The technical aspects of this technology are not relevant for this thesis. The justification for why this section is included will be explained below.

The reason technologies like this cannot be used to modernise cargo shipping is that the legal framework does not simply exist. As has been explained with electronic bills of lading, a legal regime is necessary. A system like this, could via electronic messages transfer the right of control in a secure way and make both paper and electronic bills of lading obsolete. This is however not possible only through contractual work but requires a solid legislative foundation. This goes to show that the current lack of legal attention also hinders new advancements, and thus must be corrected as soon as possible. The topic of evolving forward will therefore be highlighted in the following concluding discussion.

¹⁵⁶ Koji Takahashi, “Blockchain technology and electronic bill of lading”, 22 JIML, (2016) p. 202.

5 Concluding Discussion

5.1 Legal Status of and the Need For Electronic Bills of Lading

To move the discussion forward, it is essential to start at the foundation. As presented in this thesis, the bill of lading as a concept goes back to late medieval-times. In contrast, the bill of lading known at present started to develop in the 18th century. What is quite remarkable is that the bill of lading reached that status by growing freely and independently. It was not the decisions of lawmakers or ratifications of treaties that created the concept or status of this document. It was rather a product of a healthily growing market economy where merchants were able to use, maintain and develop trading practices that boosted efficiency and profit.

English common law has inspired and affected other jurisdictions concerning the legal status of the paper bill of lading, more than any other. It must however be remembered that the status did not derive from the courts, the courts simply established that the mercantile customs did exist and therefore made the law. Except concerning the transfer of contractual rights and obligation, which the bill of lading needed statutory¹⁵⁷ help to perform, all other significant features derived from customs and practices. Therefore, it is indeed ironic, that the modernised electronic bill of lading is dependent on legislators to become functional.

In this thesis, the main functions of the bill of lading are examined. These are: receipt for goods as either *prima facie* or conclusive evidence, evidence of contract and document of title. To be fully functional, it must also be able to transform the property and control of goods, but also the contractual rights

¹⁵⁷ Through COGSA 1992.

and obligations. However, the most significant function of these is that as a document of title in the meaning that the bill of lading gives the holder a symbolic or constructive possession of the goods. The first two functions of the bill, despite being very important, are the easiest to legally replicate in an electronic version of the bill of lading.

The intention to pass property to the goods, which is presumed when a bill changes hands is frankly stated replicable. This presumption can however only be clearly feasible when the transfer occurs between a buyer and seller. When the transfer occurs between a merchant and a bank, the legal circumstances are harder to determine. Logically, when goods, specific ones or in bulk are sold, the intention is more often than not for the property to pass at some point in time. Obviously, there are exceptions to this, like when commodities are bought and sold over and over again while in transit. Seen in the perspective of all sale contracts, the existence of these cases cannot be said to rebut the presumption. At least not when other types of trades are being discussed.

However, when a bank or other kind of financial institutions receives possession of a bill of lading as security for a loan, the intention cannot be to pass property. The underlying intention is for the merchant to pay off the loan and collect the goods, and the bank only holds it as a security. Unarguably, the passing of a paper bill of lading will create this presumption anyway. Conversely, this cannot be said about an electronic version that does not possess the same legal rights and obligations.

In comparison, it has already been stated herein that the evidentiary functions, as a receipt and evidence of contract can easiest be replicated in the electronic bill of lading. However, it is interesting to see how this changes with different approaches. The reasoning in this thesis, with support from other scholars, strongly advocates that COGSA 1971 is not applicable on electronic bills of lading. On the other hand, Miriam Goldby's approach cannot be rebutted as

directly wrong, just as the less likely option. The truth is that there is no clear answer to be provided.

In the discussion concerning electronic bills of lading in Chapter 3 of this thesis, it is made clear what the legal status is, when presuming COGSA 1971 is not applicable. Still, until the matter of fact is clarified by the courts or statutory changes are completed, it is highly relevant to see what changes with the presumption that COGSA 1971 would be applicable to electronic bills of lading.

Obviously, it would make the contract of carriage subject to the many provisions of the Hague-Visby Rules. What is relevant here is how it would affect the possibility for the electronic bill of lading to possess the same kind of main qualities as that of the paper equivalent. What would clearly be affected is the stronger evidentiary value it would obtain this, both for the shipper but especially for the third-party holder. If this transferee is acting in good faith, the carrier can obviously not rebut the statements provided in the bill of lading in accordance with the Rules.

However, concerning the outstanding quality as document of title, most likely, nothing would be changed whether COGSA 1971 would be applicable or not. Firstly, as already established, this function derived from mercantile customs and relates to other fields of commercial law besides admiralty law. Secondly, The Hague-Visby Rules states that it is applicable to bills of lading or other negotiable documents. Obviously, the Convention does not make any document negotiable. It is a quality already possessed by the document in order for the Convention to be applicable. In case something is not negotiable,¹⁵⁸ it does not really make a lot of sense that it would be a document of title. In this manner, it becomes clear from the hypothetical application of COGSA 1971 to an electronic bill of lading, that it is not reasonable to apply COGSA 1971 to those electronic bills.

¹⁵⁸ Negotiable as in being transferable.

It is thus clear that electronic bills of lading are strongly disfavoured under English law since they do not have the main functions of the paper bill. Moving forward in the discussion, one must however know what the consequence of this is. It is not fair to simply push for electronic bills of lading because they are the newer version. They must indeed be worth the effort, as in being beneficial enough, to advocate for the change of legal status.

The main argument amongst the voices working towards electronic bills of lading is of course security. Which is a valid point. However, it cannot stand as neither the main nor the only argument in favour for electronic bills of lading. Truly speaking, electronic bills of lading hold many beneficial qualities and even more possibilities regarding security issues. Most likely, these upsides are heavily outweighing the flaws. Nevertheless, the flaws still do exist, at least with today's technology. Electronic records are far from impossible to hack, manipulate and steal.

The real reason why electronic bills are the future, or should already be the present, is the efficiency. It is all that time that is being wasted waiting for the paper document to be sent across the globe, and all that money wasted during those delays. In addition to this, the huge direct costs of the industry that is spent on the issuance and management of paper documents are also a burden. Lastly, it is about the sustainability of communicating electronically instead of posting a piece of paper that should motivate the work towards electronic bills of lading.

5.2 The Efficient Solution

Throughout this thesis, it is clearly demonstrated that an electronic bill of lading cannot be the same thing as the paper version. The important difference arises from how they in a purely physical way differ from each other. However, it is not the physical difference that matters but the way they end up functioning due to this.

On one hand, the paper bill of lading is a specific physical object that possesses certain rights and obligations. On the other hand, the electronic bill of lading is in fact an electronic record that is copied every time it is transferred. This fundamental difference provides advantages and disadvantages for both versions, and some of them shared. Obviously, there are different security risks with both versions, at least with the current status of the technological level in mind.

More importantly, the fundamental difference will make it impossible to treat the electronic and the paper bill of lading as complete equals. Nevertheless, it is very clear that by amending the current legal regime, it is more than possible to create functional equivalence between these two physically different versions of the same thing. As established, the Rotterdam Rules are clearly based on creating an equal version instead of replicating the original. The Rotterdam Rules cannot be presented as a practical solution before answering two fundamental questions. Firstly, is the Convention enough to create functional equivalence? Secondly, is it reasonable to rely on the acceptance of the Convention? It must be considered that the Convention's scope of application is broad, and it may not enter into force because of reasons unrelated to electronic bills of lading.

Concerning evidentiary functions such as receipt and contractual functions, it can be stated that the Convention fulfils the role it intends to have. In these aspects, the Convention is enough. Consequently, there is no reason to discuss these issues here. However, these functions are the easiest to replicate and legally integrate into an electronic bill of lading. The ability to transfer the rights and obligations that goes with a bill of lading has usually been more problematic to transfer to a new holder. The Convention's framework is very concise and effective about this topic as well. The complicated topic of the Rotterdam Rules is the ability to make the electronic bill of lading function as a document of title.

Since the Rotterdam Rules do not govern anything outside the contract of carriage, it cannot make the electronic bill of lading a document of title. At least not strictly compared to how the paper bill of lading is accepted as a document of title. The main consequence of this is that delivery of the electronic bill cannot be considered as symbolic delivery.

However, as presented in this thesis, certain rights under the sales contract become useless without the possibility to enforce them under the contract of carriage. What the Rotterdam Rules do is to create the right of control. This right is separated from the bill of lading. Nevertheless, if there is transport document or record, the right to control follows it regardless of its format. This practically gives the holder of the electronic bill of lading the same control that a holder of a paper bill does under e.g. English law. With the right of control, the unpaid financier can redirect the goods to a new consignee to secure payment. In the same manner, the buyer of goods can secure delivery of the goods. Despite not being a document of title in the strict sense, the electronic bill is able to *de facto* function as one under the Rotterdam Rules. Hence, the electronic bill of lading becomes a functional equivalent to the paper bill with the use of the Rules.

Besides successfully making electronic transport records equal from a legal viewpoint, the Rules do achieve something else. Through the application of the Rules, the right to control are not necessarily vested into the transport document or electronic record. It can be applicable when the electronic communication does not qualify to constitute an electronic transport record. This can be very practical if there is a switch in technology to a more modern technology comparable to blockchains. Thus, not only do the Rules bring the legal regime up to date. They also provide the legal solution to adopt the technological solutions of the future. The latter could prove very important considering how slow the legal evolution has been in this field of law.

Nevertheless, it cannot be avoided that the same objectives can be reached through the adoption of MLETR by domestic lawmakers. MLETR is a less

complicated version of the Rotterdam Rules. The huge difference between these solutions lies in how easy it will be to actually implement each framework in practice.

From a logical standpoint, the entry into force of the Rotterdam Rules are less plausible. There are a few simple explanations to this. Firstly, the Rules require twenty ratifications just to enter into force. And for this to happen, the world is depending on either USA or China to take lead. There is a risk of that never occurring. Secondly, the Rotterdam Rules constitutes a legal regime that cover multimodal carriage of goods from door to door. The Rules balance out the relationship between carrier and shipper. Due to its wider focus, it may never enter into force.

In conclusion, this thesis supports the Rotterdam Rules as a viable solution to fill the legal vacuum regarding electronic bills of lading. However, the strong recommendation of this thesis is for states to adopt MLETR into their domestic legislation. The aim of this will be to create legal certainty regarding electronic transport records in general and open the door for the solutions of tomorrow.

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