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World Wide Trade, a manual affair

A study of the current position of the electronic bill of lading

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LIST OF ABBREVIATIONS

BrB – Brottsbalken, Swedish Penal Code

C&F – Cost and Freight

CA – Certification Authority

C.I.F. – Cost, Insurance, Freight

CMI – Comité Maritime International

COGSA – Carriage of Goods by Sea Act United Nations

CISG – Convention on contracts for the international sale of goods

DDG – ESS-Databridge Development Group

ECOSOC – United Nations framework of the Economic and Social Council

EDI–Electronic Data Interchange

ESIGN – the Electronic Signatures in Global and National Commerce Act

ESS – Electronic Shipping Solutions

F.O.B. – Free On Board

ICC – International Chamber of Commerce

IMB – International Maritime Bureau

NJA – Nytt Juridiskt Arkiv (Supreme Court of Sweden)

NVOCC – Non Vessel Operating Common Carrier

P&I – Protection and Indemnity (Ship owners insurance)

SGA – Sale of Goods Act (U.K.)

SMC – Swedish Maritime Code

TTP – Trusted Third Party

UCC – Uniform Commercial Code (U.S.)

UETA – Uniform Electronic Transactions Act

UNCEFACT – UN Centre for Trade Facilitation and E-business

UNCITRAL – the United Nations Commission on International Trade Law

UNECE – the United Nations Economic Commission for Europe

USC – United States Code

1. INTRODUCTION

1.1. WHY IS THE ELECTRONIC BILL OF LADING IMPORTANT?

International trade keeps developing. In spite of the economic recession in 2009, world merchandise export has grown with 25 % over the last five years.¹ As will be shown in this thesis, part of the increase has been possible thanks to improvement of import and export processes such as customs declarations and port and terminal handling. To a large extent, these improvements have been made possible by the installation of integrated computer systems that minimizes data entry errors and the time to transfer information. But there are still many barriers to cross border trading and the possibility of improving transport efficiency is a constant focal point for the shipping community and subject to numerous international investigations.

A central issue when dealing with transport efficiency is the transport documents. It has been estimated that 10-15 % of total transportation costs consists of costs associated with the issuing, transfer and verification of transport documents, which is why there is a constant effort to streamline these processes.²

The most well known and developed sea transport document is the bill of lading, a legal institution of its own with a history and tradition of almost mythical proportions still influencing the transport processes of today. The bill of lading has many advantages which will be explained later in this paper, but it is also known to be a main contributor to the high costs of trade mentioned above. The main disadvantages of the bill of lading are said to be delayed arrival, high cost, fraudulent issuance of bills of lading and inaccurate or insufficient information.³

The trade community's response to the problems associated with the bill of lading has, in line with the general efforts referred to above, been to develop the concept of the electronic bill of lading. This work began as early as 1970 but still has not gained commercial momentum. According to a representative of a major ship owner, this may in part be due to fear of change and that electronic bills of lading has not been regarded as a safe alternative⁴. In 1995, the

¹ World Trade Organisation Statistics Database http://www.wto.org/english/res_e/statis_e/statis_e.htm

² UNCITRAL EDI Working Group, Jan 1996 Page 13 Commission of the European Communities, The Legal Position of the Member States with Respect to Electronic Data Interchange: Final Report (Sept. 1989), quoted by Amelia H. Boss, *The International Commercial Use of Electronic Data Interchange and Electronic Communications Technologies*, 46 Bus. Law. 1787, (1991).

³ Yannopoulos A.N.(Ed.), *Ocean Bills of Lading: Traditional Forms, Substitutes and EDI Systems*, (The Hague, Kluwer Law International, International Academy of comparative Law, 1995) p. 17

⁴ Interview David Andersson, see s. 6.3.8.

International Academy of Comparative Law concluded in a report that the main obstacle had been what was termed "traditional inertia" and it continues its conclusion stating that:

"The use of electronic bills of lading is, essentially, a business rather than a legal decision. The law may provide the legal framework for the function of electronic bills of lading in the same way and with the same effects as the traditional bills of lading. However, business interests will eventually determine whether the availability of, and the economic incentives for, the use of electronic bills of lading outweigh concerns for privacy and the safeguarding of trade secrets, for accuracy of information, and for security of transactions and acquisition."⁵

16 years later, the industry still has not considered the transfer to electronic bills of lading worth the effort. It is still a marginal phenomenon in spite of all that has happened in means of technological and legislative development. This means that the problems inherent to the paper bill of lading are still affecting and hampering world trade, especially in the least developed countries where effects of process improvements have the greatest result.⁶ The situation is at its worse when the bill of lading is used as collateral during transport and/or when the goods are traded during transport, the manual processes that has to be used often prevents the actual bill of lading to arrive in time for discharge and delivery. Carriers are then often asked to deliver without the surrendering of the bill of lading, which, if the carrier agrees, may result in liability and loss of indemnity insurance.⁷

1.2. PURPOSE

As briefly illustrated above, there are today compelling reasons for leaving the traditional bill of lading behind, and there are modern alternatives such as the sea waybill and the electronic bill of lading available that are considered more cost effective and less prone to risk. It is part of my pre-understanding that bills of lading are perceived as complex documents that in certain cases are difficult to replace due to their legal qualities. The purpose of this thesis is therefore to investigate whether electronic bills of lading are legally valid and if such documents can be submitted and accepted as evidence in a court of law and if there are legal obstacles, to investigate international and/or national initiatives aimed at resolving the situation. To achieve this purpose, I have asked the following questions:

- a) How are electronic bills of lading used and perceived today?
- b) Are there any legal obstacles to the widespread use of electronic bills of lading?

⁵ Yannopoulos A.N.(Ed.), *Ocean Bills of Lading: Traditional Forms, Substitutes and EDI Systems*, (The Hague, Kluwer Law International, International Academy of comparative Law, 1995) p. 41

⁶ *Trading across borders*, An article that is part of Doing Business 2012, a study undertaken in cooperation by International Finance Corporation and the World Bank, available at: <http://www.doingbusiness.org/reports/global-reports/doing-business-2012> (visited 2011-12-19)

⁷ Tetley, W. (2004) *Letters of indemnity at shipment and letters of guarantee at discharge*, published in *ETL* 287-344, p. 32, available at <http://www.mcgill.ca/maritimelaw/maritime-admiralty/> (visited 11-12-19)

c) What legislative options are available to ease the transition to electronic bills of lading?

1.3. METHOD

In order to answer the questions above, it has been necessary to analyse the current position of the electronic bill of lading and its possibilities to eliminate the disadvantages associated with the paper bill of lading by examining the concept of the bill of lading in a legal context, both commercially and technologically, past and present..

In order to investigate the status of the electronic bill of lading according to international and Swedish law, I have studied those conventions and individual laws that I find most relevant to the nature of the bill of the lading and its electronic correspondent, examining both the text of the law, preparatory works and juridical doctrine, all according to traditional legal method. In particular, I have investigated the legal feasibility of concluding agreements using electronic means of communication and also the transfer of rights when using electronic documents. I have also compared the electronic media with the traditional paper media from a security perspective in order to understand the pros and cons with both alternatives.

In parallel, I have also investigated how electronic bills of lading are used today and how their functionality is perceived by the trade parties. For this purpose, I have conducted a series of interviews with representatives of the industry, such as shipping lines, e-commerce service providers and banks. These interviews have also served the purpose of furthering my understanding of the shipping industry in general and where applicable I will make use of the result throughout the thesis. The interviews were done in an informal way, encouraging the objects to speak freely on the subject. The result has been interpreted according to hermeneutic method, the aim of which has been increased understanding of the particular interests and experiences of the different parties.

The combination of methods is a consequence of the ambition to understand both the legal and the economical factors affecting the delayed introduction of the electronic bill of lading. The perspective of this thesis is mainly Swedish but with an international outlook where it serves a purpose to compare and to provide the perspective needed to understand this highly international subject.

1.4. DELIMITATIONS

The aim of this thesis is to study the electronic bill of lading from a legal perspective, *de lege lata*. In order to justly describe the electronic bill of lading it is necessary to investigate the legal qualities of the traditional bill of lading and the electronic media as well as the law on contracts, both traditional and those electronically concluded. It is also necessary to describe the past and current political and legal environment in regards of transport documents.

To ease the reading of this material I have chosen to omit descriptions of certain qualities of the bill of lading that from my point of view are not affected by the transfer to the electronic media or are in other ways irrelevant for a presentation on this level. For anyone interested in more in-depth information there is plenty of material available. In the Swedish language I would recommend *Sjölagens bestämmelser om godsbefordran* by Kurt Grönfors and in the English language *Carver on bills of lading* by G. Treitel and F.M.B. Reynolds.

As starting point in the legal analysis I have used Swedish maritime law, and any example I have made presupposes international sea transport to or from Sweden. Due to the international nature of the subject, many references are made to the Common Law systems of Great Britain and the USA. International maritime case law is centred to the British system, hence many of the cases I refer to have been settled in English courts but are widely regarded as having international bearing since the concept of the bill of lading is perceived to be of a universal character, albeit with minor national interpretative differences.

With few exceptions, this thesis only concerns sea transport and does not regard other transport systems such as road, rail or air. All transports discussed are international cargo transports of commercial nature, no domestic transport, passenger traffic or consumer relations are covered.

E-commerce is a wide topic that includes many contractual relations and concerns several legal issues as it concerns both consumers and businesses. In this thesis, attention is only given to electronic formation of transport contracts and documents, and to a certain extent documentary credits. Also, to conclude a contract electronically is a process of several steps, ranging from presenting an offer to accepting it with a final click on a “send” button or similar, and to analyse the process thoroughly one should look at all levels. It is not the aim of this thesis to provide such in-depth coverage of the material law of contracting; instead the concern is the wider question of whether electronic contracting is legally feasible in Sweden and certain other jurisdictions.

2. THE LAW ON TRANSPORT

2.1. SOURCES OF LAW

A documentary sale including carriage of goods at sea takes place in a complicated network of legal regimes acting on different levels of the commercial juridical system. The upper level consists of international trade conventions such as United Nations Convention on contracts for the international sale of goods (CISG) and also international guidelines such as Unidroit Principles of international commercial contracts (Unidroit Principles). The next level consists of the three international legal regimes currently governing carriage of goods by sea under bills of

lading; the International Convention for the Unification of Certain Rules of Law relating to Bills of Lading (Brussels, 25 August 1924) ("the Hague Rules"), and its Protocols ("the Hague-Visby Rules"), and the United Nations Convention on the Carriage of Goods by Sea (Hamburg, 31 March 1978) ("the Hamburg Rules"). These conventions have in turn influenced most countries' national legislation meaning that these countries have a lot in common but there are still many irregularities between the different systems. Hoping to resolve these irregularities and finally create an international common maritime transport law, and thereby facilitate international trade by making its underlying contracts and documentation more efficient and clearer, United Nations Commission for International Trade Law (UNCITRAL) together with the Comité Maritime International (CMI) has suggested a new international convention aimed at replacing the three current. The new convention, United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea (the Rotterdam Rules), was opened for signing on September 23, 2009. It has currently been signed by 24 countries of which Sweden was the latest one, signing in July 2011. For the convention to enter into force it needs to be ratified by 20 countries but so far only Spain has done so.⁸ The effect that the Rotterdam Rules may have on the use of electronic documents in maritime transport will be discussed in Chapter 7. In addition to international conventions, there also exist international bodies of rules and regulations that do not have the force of law but serves as templates and guidelines. These include the UNCITRAL Model laws on Electronic Commerce and Electronic Signatures, the Incoterms 2010 and the UCP 600 that are issued by the International Chamber of Commerce (ICC).⁹

The third level of legislation is the national level. For the sake of illustration, this level can in turn be divided in two sublevels which interact both hierarchically and in parallel. On the one hand there is sales and contract law which can be regarded as *jus generalis* and on the other hand there is maritime transport law which is *jus specialis*. In this study we will see examples of how they at times complement each other and at other times compete and thereby cause uncertainty. In Sweden maritime law is manifested in the Swedish Maritime Code, sjölagen (1994:1009). According to SMC chap. 13 s. 4, the Hague-Visby Rules are mandatory to applicable transport contracts agreed in Sweden. It serves to be added that the Swedish Maritime Code at large is modeled on form of the Hamburg Rules¹⁰, although as to the material content, the Hague-Visby Rules will be mandatory to contracts of carriage of goods that falls within the conventions scope of application.

⁸ UNCITRAL Website: (visited 2011-12-19)

http://www.uncitral.org/uncitral/en/uncitral_texts/transport_goods/rotterdam_status.html

⁹ ICC Website: <http://www.iccwbo.org/> (visited 2011-12-19)

¹⁰ Prop 1993/94:195 s. 3.2.5

When discussing national law it is also important to remember that national law is often the result of regional cooperation such as within the EU or between the Nordic countries. This means that there are often secondary sources of law such as court practice and preparatory work available which might affect interpretation.

2.2. CHOICE OF LAW

Since 1998, articles 1–16 and 18–21 of the The Convention on the Law Applicable to Contractual Obligations 1980 (the "Rome Convention") applies as law in Sweden.¹¹ This means that when deciding on what law to apply on a contract in Sweden one must first see to what law the parties has chosen and if no such clause has been included in the contract, the rule is that the contract shall be governed by the law of the country with which it is most closely connected.¹² According to article 4 s. 4 this is either the country in which, at the time the contract is concluded, the carrier has his principal place of business, if this is also the country in which the place of loading or the place of discharge, or the country where the principal place of business of the consignor is situated.^{13 14} Today most standard transport contracts and transport documents include clauses on choice of law. For example, the BIMCO Liner bill of lading (Conlinebill 2000) states in s. 4:

“Disputes arising out of or in connection with this Bill of Lading shall be exclusively determined by the courts and in accordance with the law of the place where the Carrier has his principal place of business”.

2.3. SUMMARY OF CHAPTER 2

International trade is governed by a network of statutes on different levels, some of which are forming mandatory requirements. To fully appreciate the legal status of a document such as the bill of lading, it is necessary to study both international conventions and national law, and also how they interact. The main body of law that is to be considered in this thesis is the Swedish

¹¹ Lag (1998:167) om tillämplig lag för avtalsförpliktelser

¹² The Rome Convention Article 4 s. 1

¹³ Sweden and CISG Part 2: As to the application of CISG it has been noted that because of the Swedish reservation against Part 2, it is today not always clear if CISG is applicable or not. When the law choice rules of the Rome convention is applied to a contract and the result is that the Swedish Contract Act is applicable, then CISG is not applicable, as opposed to if another CISG states' law had been applicable. (See Prop. 2010/11:97 p 11.) According to an e-mail to the author from Mats Holmqvist, Legal advisor at the Ministry of Justice, the Swedish government decided on November 3rd 2011 to withdraw the Swedish reservation against CISG Part 2, the withdrawal will take effect 6 months after the withdrawal has been handed in to the UN.

¹⁴ It has been suggested that the Rome convention does not apply to bills of ladings since that according to the Rome Convention art. 1(2)c), the convention does not apply to "negotiable instruments". Current understanding of the topic seems to be that the convention does apply since a) the bill of lading is not a "negotiable instrument" and b) Art 4(4) of the Rome Convention makes it clear that the contract of carriage (normally evidenced by a bill of lading) is subject to the Convention. See Berlingieri F., *The Hamburg rules: a choice for the EEC? : International Colloquium held on 18 and 19 November, 1993*. 1994, Antwerpen: Maklu

Maritime Code, which in turn has lent its content from the Hague-Visby Rules and its form from the Hamburg Rules. Also English and US law will be studied; English because it represents the common law system, which is highly influential on the maritime law in general, and the US law because the Americans have already implemented legislation recognizing electronic documents. Also, both jurisdictions are common options in choice of law clauses.

In the next section, I will place the bill of lading in its commercial ambit, retell its historical heritage and give a brief overview of the legal qualities it possesses. I will also discuss problems inherent to the use of the bill of lading and the consequences they may have.

3. THE BILL OF LADING

3.1. THE DOCUMENTARY SALE

An international sale involving sea transport is often done on shipment terms, meaning that the actual sales contract is based on how the transport of the goods is to be performed and who will bear the responsibility during the various stages. Common contract types are Cost, Insurance and Freight (CIF), Cost and Freight (C&F) and Free On Board (FOB). Each of these alternatives stipulate different duties and levels of responsibilities for the parties involved, the main difference being that under CIF and C&F terms, it is the seller that arranges for transport and under FOB it is the buyer. These terms are defined in Incoterms 2010 which is published by ICC.

What the different sales contracts have in common is that the seller binds himself only to ship the goods in question, not to, as would normally be the case in a domestic sale, deliver it. There are no formal requirements for a transport contract; in fact it is often concluded in informal ways such as through a phone call. This generates the need for the transport document such as a bill of lading or a sea waybill, which is primarily aimed at binding the carrier to perform the transport under agreed terms and conditions but may also serve as financial security during the transport as part of a documentary credit.

3.2. THE DOCUMENTARY CREDIT

In order to finance international sales transactions, parties use the, from the sales agreement independent, process of a documentary credit to secure the interests of those involved. In the following, the process will be explained and then commented upon. The comments are in form of

a summary of two interviews of employees of different Trade Finance Banks conducted in the course of writing this thesis.¹⁵

3.2.1. THE DOCUMENTARY CREDIT PROCESS

When an international sale has been agreed the buyer opens a letter of credit in his bank to the benefit of the seller. The bank of the buyer contacts the bank of seller that, after receipt and control of the agreed transport documents from the seller, pays the seller the agreed amount. The seller's bank must then send the original documents to the buyer's bank that in exchange for the documents, will pay the sellers bank, and in turn demand payment from the buyer. Apart from when sending the original transport documents which is normally done by courier, communication between banks, such as forwarding the letter of credit, is often done electronically through the SWIFT network.¹⁶ SWIFT is short for the Society for Worldwide Interbank Financial Transactions, which is a co-operative owned by over 1000 banks, specialising in secure inter-bank transactions. Banks that use the SWIFT-network exchange digital keys with each other, making the transactions totally secure. This is especially important for transactions between parties that are new to each other or where there are other trust related issues.¹⁷

The documentary credit process is documented by the International Chamber of Commerce in its guideline UCP 600 or, if electronic means of communication are used, its supplement eUCP. UCP 600, is, as was previously its predecessors, regarded as *de facto* international law on the subject.¹⁸

For the process to work it is imperative that the transport document function as representative of the goods and thereby grants the bank the value of the goods, should the buyer not be able to pay. This is the main characteristic of the bill of lading, see section 3.3.3, and the main reason as to why it is put to such widespread use in international trade.

3.2.2. SUMMARY OF INTERVIEWS WITH BANK EMPLOYEES

Both interviewees confirmed that the bill of lading is mainly used in situations where trust is an issue, for example when dealing with so called Emerging Markets, such as Eastern European countries or Far East countries.

¹⁵ Interviews with Kristina Johansson, Nordea Trade Finance and Calle Nykvist, Swedbank Trade Finance

¹⁶ DiMatteo, L.A. (2008) *Law of International Contracting*, Gainesville: Wolters Kluwer Law & Business p. 103

¹⁷ Interview with Kristin Johansson, Nordea Trade Finance

¹⁸ Gorton, L. (1980) *Rebursrätt* p 46 ff.

Often, banks receive letter of credits on speculation, viz. that the issuing part, the prospective buyer, has not yet concluded a sales agreement but is hoping that a seller will find the offer, which always has a low price, acceptable. As can be understood, it may in such cases be difficult to assess the level of trustworthiness. One of the interviewees stated that it is important to know the customers and to always be on the alert against money laundering schemes and other unserious activities.

Both interviewees confirm that a common issue with the letter of credit process is that if the information details in the bill of lading and letter of credit do not match, the system is halted and a manual revision becomes necessary which causes delay.

Both interviewees know of the Bolero system (see Chapter 6) but they do not have personal experiences of it. As to what they have heard, the system is considered expensive and only worthwhile to large corporations.

The SWIFT-network is considered a necessity for the letter of credit process and the use of SWIFT-codes and keys creates trust between banks. However, it is not yet fully deployed; many banks in Asia are not members. For example, in China it is common that sub-branches use the SWIFT-code of a major branch which sometimes causes issues. Both interviewees prefers electronic transactions over manual and would like to see that all documents in a documentary sale could be transferred and presented through the SWIFT network.

When asked why the electronic bill of lading has not been a success so far, both interviewees stated that the banks want to implement electronic bills of lading but the ship owners are very conservative and do not want to let go of the security they experience when using the traditional bill of lading. I find it interesting to note that when I asked the same question to representatives of shipping companies, the answer was that they indeed were open to use electronic bills of lading but the banks were conservative and against change.

3.3. THE BILL OF LADING

The transport document differs from the sales contract in an important aspect. While the sales contract is an agreement characterized by the freedom of contract, a transport contract is governed by mandatory statutes and legislation detailing procedures and responsibilities surrounding the transport.¹⁹ The underlying reasons for this difference are the particular circumstances characterizing transport at sea. The unpredictability of the seas and the long distances covered has affected sea transport and how it is perceived. Risk and danger is always

¹⁹ Dubovec, M. (2006) The Problems and Possibilities for Using Electronic Bills of Lading as Collateral. *Arizona Journal of International & Comparative Law* Vol. 23, No. 2 p. 439

imminent and needs to be handled which is why that throughout the centuries, customs and procedures has evolved in order to distribute the risk. Today this is visible in international conventions, national legislation and standard documents, all aimed at facilitating a fair and predictable trade. Fair in the sense that responsibility and liability is distributed between the parties and predictable in the sense that the widespread use of standard documents facilitates equal knowledge of the meanings and consequences of the contracts used.

On a more practical level, the transport document needs to fulfil two tasks. Firstly, it is the bearer of information regarding the transport itself and what terms and conditions apply. This may be done either by print on the back side of the document or by reference to some other document. Secondly, using the terminology of Prof. Kurt Grönfors; it is the handle that allows control of the goods during transport²⁰, which will be explained in detail below, see section 3.3.4.

3.3.1. THE BILL OF LADING THROUGH HISTORY

A bill of lading is in its essence a promise to transport and as such has existed for thousands of years. An early example is dated AD 15 and details a transport of wheat to Alexandria, Egypt. This transport document already had several of the qualities that we expect today, for example a receipt function, a description of the goods and a promise to carry and deliver.²¹

Over the years and depending on place, practice has differed. During the 14th century it became mandatory in some states to keep a ship's register, similar to today's use of cargo manifests, often handled by the ship's first mate. In a practical manner, this replaced the receipt function of the early transport documents. During the same period basic versions of bills of lading were being used, however without transferability. This important quality of the bill of lading does not seem to appear until the late 16th century, when documents were made out to "the shipper (or his agent) or their assigns" or a [presumed] "buyer or his assigns".²²

The change in practice depended on changing trade patterns. With more frequent and faster transport, it became more common that the seller had not yet decided upon a final buyer or destination when shipping. Also, it became more common that the seller did not accompany the goods during transit, therefore traders needed a possibility to transfer the rights to the goods. Another change was that during the 15th and 16th centuries, the number of cargoes per vessel increased, making it impractical for the carrier to enter into a charter party with each shipper.

²⁰ Grönfors, K. (1976) *Dokumentlösa transporter och kreditsäkerhet*, Festskrift till Rodhe, Stockholm, p 229

²¹ Grönfors, K. (1991) *Towards sea waybills and electronic documents*, Göteborg: Akademiförlaget, p 10

²² Bools, M.D. (1997) *The bill of lading. A document of title to goods, an anglo-american comparison*, p 4

Instead it became more common to include freight contract details in the transport document and gradually, the bill of lading in itself came to be an evidence of a contract of freight.²³

1793 the English House of Lords ruled in a case, *Lickbarrow v Mason* (1794) 5 T R 685, which admittedly changed the perception of the bill of lading, albeit debated as to how. Some researchers mean that the case added to the bill of lading what by modern historians has been called the final piece; “delivery only against surrender of the document”²⁴. Others state that the case only decided that transfer or endorsement of a bill of lading creates a presumption of transfer of property whilst it is the underlying transaction that actually transfers property. However, the general notion of the bill of lading as a document of title was born and soon gained general acceptance.²⁵

Commercial reasons were behind the custom to issue several copies of the bill of lading, the idea being that the trader wanted one copy available at each possible destination so that he could choose to land the goods wherever he got the best price. It has also been customary to send one copy with the ships mail to ensure that at least one copy of the bill of lading would be available in the event that the other copies had not reached its destinations. The existence of duplicate bills of lading and the fact that several parties had interest in the goods meant that there was a need for rules on property and control of the goods, these will be explained in the following.

3.3.2. THE BILL OF LADING TODAY

What complicates the nature of the bill of lading? – In the simplest of sales transactions, cash and goods change hands simultaneously and it is easy to understand the precise moment in time when property of the goods passes over from the seller to the buyer. This is not the case in a documentary sale since A; the goods and the remuneration do not move simultaneously and B; there are intermediary parties such as carriers and banks involved, all with interest in the goods in order to justify the risk they are taking. Thus there will always be a conflict of interests between the seller, who wants to assure himself of payment for the goods, the buyer who wants delivery and title of the goods, the bank who has issued a letter of credit based on the value of the goods and the independent carrier who wants to secure his freight. Much like the perilous nature of sea transport has shaped the tradition of common adventure, this conflict of interest has shaped the need to distribute the rights to the goods during the transaction process and this is what the bill of lading does. By representing the goods and acting as a financial security it allows the right of several stakeholders to coexist and thereby it reduces the risks and helps to

²³ Bools, M.D. (1997) *The bill of lading. A document of title to goods, an anglo-american comparison*, p 4

²⁴ Grönfors, K. (1991) *Towards sea waybills and electronic documents*, Göteborg: Akademiförlaget, p 10

²⁵ Bools, M.D. (1997) *The bill of lading. A document of title to goods, an anglo-american comparison*, p 19

facilitate trade. In the following, I will offer a brief overview of the different rights that follows the bill of lading and that are relevant to the understanding of the current situation of the electronic bill of lading.

3.3.3. THE LEGAL QUALITIES OF THE BILL OF LADING

As mentioned above, the bill of lading is often the key document in a sales transaction since its inherent legal qualities establishes important rights that serve to enable trade. These legal qualities are based on the bill of lading being:

- Evidence of a contract of carriage between shipper and carrier
- Receipt of goods by the carrier confirming order and quantity
- A document of title

3.3.3.1. EVIDENCE OF CONTRACT OF CARRIAGE

The actual agreement to transport goods is often concluded orally and seldom fixed in a document. Instead, the later issued transport document serves as evidence of what has been concluded. The common practice is to use a standard document, with contract particulars on the front page and standard clauses in fine print on the back, however, also bills of lading with only a reference to other documents that details the terms and conditions exist.²⁶ The time of issuance of the transport document may differ, normally it is done after delivery to the carrier or after loading. It may also be the case that the bill of lading is issued under a charter party. In such circumstances it is generally accepted that the bill of lading contains a note of reference to the terms and conditions of the charter party, which will then apply to parties to the bill of lading.²⁷

As the carrier issues a bill of lading he commits to perform a carriage of goods against freight. In order for the carrier to be assured of payment, the carrier by law has a maritime lien, or in practice – a right of retention, in the goods for claims regarding freight and cost for the transport. This includes claims related to the handling, storage and salvage of the goods.²⁸

3.3.3.2. RECEIPT OF GOODS BY THE CARRIER

The carrier is obliged by law to state the particulars of the goods on the bill of lading, including his observations on its apparent order and condition. Since the bill of lading is *prima facie* evidence of the agreement, and often the only way the buyer has to get firsthand knowledge about the state of the goods, this statement defines what the holder of the bill of lading can expect when taking delivery of the goods after the transport and any discrepancy is on the

²⁶ Grönfors, K. (1976) Dokumentlösa transporter och kreditsäkerhet, *Festskrift till Rodhe*, Stockholm, p 218

²⁷ Treitel, G. & Reynolds, M.B. (2005) *Carver on Bills of Lading* 2nd ed. s. 3-012

²⁸ Treitel, G. & Reynolds, M.B. (2005) *Carver on Bills of Lading* 2nd ed. s.4:052; Johansson, S.O. (2001) *Stoppningsrätt under godstransport*, s. 15.2.1; SMC chap. 3 s 43.

responsibility of the carrier, should he not be able to rebut the allegations. The carrier's possibility to rebut may be hindered according to the principle of estoppel, should the bill of lading have been transferred to a third party buyer in good faith.²⁹ If the bill of lading is used in a documentary sale, the bank will only accept a clean bill of lading, i.e. that the carrier certifies that the goods is received undamaged and in an appropriate condition.³⁰ This places an extra burden of control on the carrier since the seller is often keen on the carrier to issue a clean bill of lading. It is not uncommon that shippers sign letters of indemnity to ensure that the carrier issues a clean bill of lading, but this behaviour is known to have been subject to fraud.³¹

3.3.3.3. DOCUMENT OF TITLE

The bill of lading is a promise to transport and as such it grants the bearer the right to take delivery of the goods it represents. In Swedish law, this is stated in SMC chap. 13 s 52 p. 1. Here we find two prerequisites that need to be fulfilled before the bearer can take delivery:

- The bill of lading must be surrendered to the carrier³²
- The content of the bill of lading must identify the bearer as the entitled receiver, either by name, by order or a correct chain of endorsements.

These two elements are the foundations of the negotiability of the bill of lading. By stressing that the actual document must be surrendered it has been made clear that the document itself represents the goods and by allowing a chain of endorsements, it is made clear that the bill of lading can be sold on. In effect, possession of the goods and property of the goods has been separated; making it possible to place shipped goods on the market or to use it as collateral securing the underlying sales contract, viz. a documentary sale.

This key feature of the bill of lading means that it may be transferred from the shipper to a third party and that the rights towards the carrier that originally rested with the shipper will then follow on to the subsequent holder(s) of the document. Even in jurisdictions that do not allow contracts that confer rights on a third party, the bill of lading creates privity between its holder and the carrier as if the contract was made between them, see section 3.5. The transfer can be done by simply handing over the bill of lading to the buyer if it is a bearer bill, or if it is an order

²⁹ Treitel, G. & Reynolds, M.B. (2005) *Carver on Bills of Lading* 2nd ed. s.2-001; SMC Chap. 13 s. 49 p. 3

³⁰ See UCP 600 Art 27

³¹ Tetley, W. (2004) Letters of indemnity at shipment and letters of guarantee at discharge, published in *ETL* 287-344, p 3-7, available at <http://www.mcgill.ca/maritimelaw/maritime-admiralty/> (visited 11-12-19)

³² The bill of lading differs in this way from other negotiable documents such as bills of exchange or cheques that derive their negotiability directly from statutes, viz. *Lag (1936:81) om skuldebrev* in Swedish law and *Chapter 3 of the Uniform Commercial Code* which defines negotiable instruments in American law. See Grönfors, K. (1991) *Towards sea waybills and electronic documents*, Göteborg: Akademiförlaget, p 178

bill, by endorsement and subsequent handover, all depending on the character of the bill of lading. It is the transferability of the bill of lading that forms the basis of what is called the negotiability of the document.

3.3.4. THE RIGHT TO CONTROL OF THE GOODS

In traditional civil law, right to goods is discussed in terms of ownership and it is often indicated by possession. Possession may be a key factor, for example when looking for protection against the creditors of the seller. In transport law, where the goods is normally in the possession of an independent carrier, the right to goods, or a *jus ad rem*, is defined as *the right to control of goods or right to dispose of goods*.³³

The right to control of goods under a documentary sale follows the bill of lading.³⁴ If a set of three or more bills has been issued, which is customary on many trades, the holder of a full set is know to have *positive control* of the goods, a holder of an incomplete set has *negative control* of the goods. To have positive control of the goods means that the holder has indirect possession of the goods which grants the holder not only delivery at the agreed destination, but also, the right to demand a change of destination.³⁵ The holder of a partial set of documents may claim delivery at the original port of destination, but not redirect the transport, SMC chap. 13 s. 52 p. 2. As pointed out below, a full set is necessary to obtain a letter of credit against the bill of lading. In most cases, to have the right to control the goods also means that you have standing, *locus standi*.³⁶

The right to control that is bestowed on the holder of the bill of lading is due to that the bill of lading is a document of title. If there is no document of title issued, a buyer of goods being transported must look for other means of establishing control of the goods. This situation is not covered by Swedish law. According to a leading scholar, this may be achieved by the seller notifying the carrier of the transfer of right to control of the goods, which would establish a positive control of the goods.³⁷

3.3.5. THE RIGHT OF STOPPAGE

When a sale has been agreed and the goods have left the sellers premises and a transport document such as a bill of lading has been issued, the seller still has a right to abort the transaction if the seller has reasonable cause to believe that the buyer will not be able to fulfil his

³³ Johansson, S.O. (2001) *Stoppningsrätt under godstransport*, s. 11.2

³⁴ Johansson, S.O. (2001) *Stoppningsrätt under godstransport*, s. 11.5.1.(ii)

³⁵ Håstad, T. Sakrätt avseende lös egendom p. 179

³⁶ Johansson, S.O. (2001) *Stoppningsrätt under godstransport*, s. 11.2.1

³⁷ Grönfors, K. (1976), Dokumentlösa transporter och kreditsäkerhet, *Festskrift till Rodhe*, p. 231.

duties under the documentary sale, see SMC chap. 13 s. 57 and Sales of Goods Act 1979 s.44 for its Common law correspondent. This right is known as right of *stoppage in transit* and it extends to the moment the buyer takes delivery of or exercises control over the goods.³⁸ The latter does not need to be done by the buyer in person; he can also use an intermediary part such as an agent or even the actual carrier, by instructing the carrier to somehow handle the goods other than the agreed transport. The buyer has then exercised control of the goods and is therefore regarded as being in possession of the goods, as has been confirmed in the case NJA 1985 p 879. The right to stoppage will also cease if the goods is resold and the bill of lading is handed over to a new bearer who is in good faith.³⁹

3.3.6. DIFFERENT KINDS OF BILLS OF LADING

There are different types of bills of lading with different qualities, the most common being bearer bills and order bills.

3.3.6.1. BEARER BILLS OF LADING

Bearer bills are characterized by the fact that they do not name to whom the goods is to be delivered, i.e. whoever has possession of the bill has right to delivery of the goods.⁴⁰ A bearer bill is transferred by actual delivery of the bill of lading.⁴¹

3.3.6.2. ORDER BILLS OF LADING

Order bills come in two kinds. The first kind stipulate delivery of the cargo to a consignee which is a person named in the bill of lading or his “order or assigns”. This means that the consignee may either take delivery himself or assign the carrier to deliver to someone else. The second kind is only made out to “order or assigns”, i.e. no consignee is named on the face of the bill of lading. In this case it is the shipper who, by transferring the bill to the desired recipient, decides who is to take delivery of the cargo.⁴² An order bill is transferred either by delivery to the consignee or order, or if the person wishes to transfer the bill of lading to someone else, through indorsement by the transferor followed by delivery to the transferee.⁴³ The process of transferral can be repeated as many times as desired until the goods is finally delivered, however, the chain of endorsements must not be broken, see SMC chap. 13 s. 52 p. 1. Should the bill of lading be transferred after delivery, the transferee will only have rights against the carrier

³⁸ For further reading on the right to stoppage, see Johansson, S.O. (2001) *Stoppningsrätt under godstransport*

³⁹ Håstad, T. (2000) *Sakrätt avseende lös egendom*, p. 179

⁴⁰ Treitel, G. & Reynolds, M.B. (2005) *Carver on Bills of Lading* 2nd ed. s. 1-003

⁴¹ Treitel, G. & Reynolds, M.B. (2005) *Carver on Bills of Lading* 2nd ed. s. 1-005

⁴² Treitel, G. & Reynolds, M.B. (2005) *Carver on Bills of Lading* 2nd ed. s.1-004

⁴³ Treitel, G. & Reynolds, M.B. (2005) *Carver on Bills of Lading* 2nd ed. s. 1-005

in regards of damage to the goods that might have been the consequence of a breach of contract by the carrier.

3.3.6.3. STRAIGHT OR NON-NEGOTIABLE BILLS

These terms refer to bills of lading that are not transferable by indorsement and delivery. Transferability depends on the wording of the bill; if the goods is deliverable to an identified consignee and does not contain any statement that indicates transferability such as “to order”, it is a “straight” or “non-negotiable” bill of lading. Due to historical reasons the word “straight” is mostly used in the USA, whilst the English prefer the word “non-negotiable”. There are differences between how the Americans and the English define the word “negotiable” but this fall outside the scope of this thesis.⁴⁴ In all practical senses, a straight bill of lading is the same thing as a sea waybill, which is defined below. However, a straight bill of lading, in difference from a sea waybill, can, depending on the applicable terms and conditions, still be a document of title if it has to be produced when claiming delivery.⁴⁵

It was established in *The Rafaela S*⁴⁶ that a straight bill of lading is a document of title and as such subject to the Hague-Visby Rules, including its package and unit limitations. From this case and also *Voss v APL*⁴⁷, it follows, in my meaning, that straight bills of lading can be useful when the shipper does not want the document to be negotiable but want the extra security of the delivery on presentation-mechanism. However, the straight bill of lading must state that presentation is necessary.

3.3.6.4. SHIPPED OR RECEIVED BILL OF LADING

A bill of lading that is issued after that the carrier has accepted the goods for shipment but before it is actually loaded on board is called a “received for shipment bill of lading” or just a “received bill of lading”. It is not considered complete and is later replaced by a “shipped on board bill of lading” (or just “shipped bill of lading”) that contains all the required information such as if the goods are in good order and condition.⁴⁸

3.4. THE SEA WAYBILL

Much of today’s seaborne trade is not done under bills of lading, but under a type of document known as the sea waybill. In the interviews conducted in the course of writing this thesis, representatives of Maersk Line stated that, on a global level, 55 % of their transports so far this

⁴⁴ Treitel, G. & Reynolds, M.B. (2005) *Carver on Bills of Lading* 2nd ed. s.1-008

⁴⁵ Treitel, G. & Reynolds, M.B. (2005) *Carver on Bills of Lading* 2nd ed. ss. 6-002, 6-017-021

⁴⁶ *The Rafaela S* [2003] 2 Lloyd's Rep. 113

⁴⁷ *Voss v APL Co Pte Ltd*[2002] 2 Lloyd's Rep. 707

⁴⁸ Treitel, G. & Reynolds, M.B. (2005) *Carver on Bills of Lading* 2nd ed. s.1-010

year were under sea waybills and 45 % under traditional bills of lading.⁴⁹ In the liner trade between Europe and the USA the figures are even higher to the advantage of the sea waybill. ACL states that their version of the sea waybill, the Data Freight Receipt, is used in 99 % of their transports between Sweden and the USA.⁵⁰

The sea waybill has its origin in land and air transport where its correspondents has been used for many years, then called for example waybill or consignment notes. These fast modes of transportation have not had the same need for a negotiable transport document as the seaborne trade has had; therefore the simpler sea waybill has prevailed.⁵¹ The sea waybill can in short be described as a non-negotiable transport document that serves as evidence of the contract of carriage and of receipt of the goods by the carrier and that also contains a commitment by the carrier to deliver the cargo to the named consignee. It differs from the bill of lading in that the consignee does not need to surrender the document to take delivery of the cargo; it suffices that he can identify himself as being the named consignee. In this difference lies the fact that the sea waybill is not a document of title and does not in itself confer constructive possession to its holder. From this follows that since there is no need for an original sea waybill to be presented to the carrier, a copy of the sea waybill may be transmitted to the consignee in any convenient way, including electronic means of communication such as fax, e-mail and other computer transmitted messages, eliminating the risk of late arrival of the document.

The sea waybill falls under the scope of the Hague-Visby rules if so expressed on the bill but also because, when it is used in ordinary commercial shipments, art. 6 of the Hague-Visby Rules does not exclude it from the application of the Rules.⁵² However, there is one major exception; the rule against rebuttal of evidence as stated in the second sentence of Art. III s. 4 is not applicable on sea waybills.⁵³

The Hamburg rules acknowledge the sea waybill as a “document other than a bill of lading” and that it is “*prima facie* evidence of the conclusion of the contract of carriage by sea and the taking over by the carrier of the goods as therein described”, see Hamburg Rules Sec. 18. The Swedish Maritime Code is somewhat more explicit with two particular sections on the sea waybill, see SMC Chapter 13 sec. 58-59.

⁴⁹ Interview with Anna Berglin, Maersk Line

⁵⁰ Interview with Anders Ivarsson, Sales Manager ACL

⁵¹ Grönfors, K. (1991) *Towards Sea Waybills and Electronic Documents*, p. 25 ff

⁵² Tetley, W. (2008) *Marine Cargo Claims*, 4 Ed., pp. 2297-2316.

⁵³ Treitel, G. & Reynolds, M.B. (2005) *Carver on Bills of Lading* 2nd ed. s. 2-018

Although a sea waybill is not negotiable, it is transferable in the sense that the consignor, who has the right to control of the goods until the consignee asserts his right or that the consignor denounces his rights, may redirect the transport to a new consignee or practice his right of stoppage according to the Sale of Goods Act 1979 s. 44.

3.5. COMMON LAW AND PRIVACY OF CONTRACT

In difference to the more pragmatic approach of Scandinavian law which under certain circumstances permit third parties to gain rights from a contract, English and American civil law only allows signatory parties to a contract to obtain rights and duties under it, not third parties. This is known as the doctrine of privity of contract and in the case of the bill of lading presents a problem since the consignee by definition is a third party. The solution has been exceptions by legislation, first in the UK Bills of Lading Act 1855 and later COGSA 1992, which now states that:

“a person who becomes... ..the lawful holder of a bill of lading... shall (by virtue of becoming the holder of the bill or, as the case may be, the person to 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.” COGSA 1992, Chap. 50 s. 2.1(c).

This has the effect that a bill of lading under English law is not a negotiable document *per se* since it lacks, for example, the ability to allow a person to transfer a better title than he himself has, which is why it is often called a “quasi-negotiable” document.⁵⁴

However, according to the wording of above mentioned statutes, these provisions only apply to traditional bills of lading, not “the equivalent” of a bill of lading such as an electronic document. This is why the today existing systems that offer electronic bills of lading, see Chapter 6, apply the principle of novation on situations where the consignee is replaced. Novation means that privity to contract for a third party is achieved through provisions in the central user agreement stating that a new contract is concluded between the carrier and the new consignee every time the cargo is resold. Hence the legal outcome is the same as of the traditional process although the method is different, all in line with the principle of functional equivalence.

3.6. DELIVERY WITHOUT SURRENDER OF THE ORIGINAL BILL OF LADING

The general rule on delivery of goods under a contract of carriage by sea is that a ship owner is both entitled to and obliged to deliver the goods carried under a bill of lading to the holder of that bill who presents it at the discharge port, see SMC Chap. 13 ss. 52, 54.⁵⁵ But, due to the cumbersome manual processes surrounding the paper bill of lading the document often arrives

⁵⁴ Grönfors, K (1991) *Towards Sea Waybills and Electronic Documents*, p. 14.

⁵⁵ For interested parties the case *Rambler Cycle Co* offers a good overview of the common law position on this matter: *Sze Hai Tong Bank v Rambler Cycle Co* [1959] AC 576

to the port later than the cargo, especially on short haul trades.⁵⁶ The consequence is that the carrier is put in a difficult situation where he has to regard his own interests as well as those of the shipper and the receiver. The typical options open to the carrier are 1) – to deliver without the surrender of the bill of lading; 2) – to deliver without the surrender of the bill of lading against a Letter Of Indemnity (LOI); and 3 – to discharge the goods to a warehouse pending further investigation and decision by a local court. The third alternative has proven to be a practical non-possibility since it would entail that the carrier would have to agree with a warehouse owner on behalf of the cargo owner. Since the carrier cannot conclude a contract on behalf of a third party, he would have to risk having to pay for the storage himself, which is of little interest to any carrier. In many cases it is also a practical impossibility due to the perishable nature of the cargo. Left with these choices, ship owners on some trades almost routinely deliver without waiting for the bill of lading.⁵⁷ In the following, I will investigate the possible consequences of such action.

3.6.1. ALTERNATIVE 1

In support of the first alternative has been held the case *Sormovskiy* 3068 where Clarke J stated:

“In trades where it is difficult or impossible for bills of lading to arrive in the discharge port on time, the problem is met by including a contractual term requiring the master to deliver against a letter of indemnity or a bank guarantee. That is common place and indeed there was a provision to that effect here. The simple rule to which I referred does require some exceptions because the bill of lading might have been lost or stolen. In order to cater for that problem it is no doubt necessary to imply a term that the master must deliver cargo without production of an original bill of lading in circumstances where it is proved to his reasonable satisfaction both that the person seeking delivery of the goods is entitled to possession and what has become of the bills of lading. The precise nature of the exceptions will no doubt require further consideration in the future.”⁵⁸

However, this somewhat carrier prone interpretation has been contested by courts, for example in the case *East West Corporation v DKBS 1912 & Anor*⁵⁹, where Thomas J stated:

“if the carrier is not protected by a reasonable belief in the genuineness of the bill presented..., it is difficult to see how he can be protected in the circumstances suggested by Clarke J” and that “Moreover the exception suggested by Clarke J was by way of implied term. But, in my view, no such implied term could ever be said to be necessary; on the contrary the right of the carrier to deliver where he had a reasonable explanation as to the absence of the bill and reasonable

⁵⁶: The reason might be for example that cargoes are bought and sold several times while in transit, so documents have to travel down a string of intermediaries before they reach the final buyer. To the carrier this delay could mean additional expenses for demurrage, port charges and warehousing. See Goldby, M. Legislating to facilitate the use of electronic transferable records: A case study

⁵⁷ Todd, P. (2010) *Excluding and limiting liability for misdelivery*, Journal of Business Law. 2010, 3, 243-266. p. 1

⁵⁸ *Sucre Export SA v Northern River Shipping Ltd (The Sormovskiy 3068)* [1994] 2 Lloyd's Rep. 266, p. 274

⁵⁹ *East West Corporation v DKBS 1912 & Anor* [2002] EWHC 83 (Comm) (07 February 2002)

evidence of the entitlement of the person seeking delivery to delivery would undermine the security of the bill of lading”⁶⁰

Also, in *The Houda*⁶¹, the Court of Appeal suggested that in order to legitimize delivery without a bill where the instrument has allegedly been lost, the tendering of an indemnity and a court order would be necessary. This closely replicates the scenario outlined in the SMC chap. 13 s. 55; when a bill of lading is lost and an application must be made to nullify the bill of lading and the applicant must also post a security to the corresponding amount. However, this is in reality an impossible proceeding due to the time such an action would take. The consequence is that carriers deliver without the surrender of a bill of lading.

It should also be noted that by other scholars, *Sormovskiy 3068* has been understood to simply emphasize that it is a breach of a voyage charter party and a bill of lading contract to deliver the cargo other than against presentation of the bill.⁶²

Carriers rely on Protection & Indemnity (P&I) insurance for protection against liability towards cargo owners, crew or third parties. Such protection is generally not available should the carrier deliver without production of the original bill of lading, meaning that such action might cause grave consequences for the carrier in the case of misdelivery and a following claim for breach of contract.⁶³ Even so, the practice continues and is, according to W. Tetley commonplace in certain trades.⁶⁴ It should be noted that the carrier can not rely on the Hague Visby Rules art 4(2)q because misdelivery is not a question of loss or damage arising from carriage of goods.⁶⁵

3.6.2. ALTERNATIVE 2

The second alternative is the most common solution to the problem of late arrival of bills of lading, but it is not without risk. The idea is that the commercial party requesting delivery offers a LOI to the carrier, in which he accepts the liability for misdelivery, a liability that if it had arisen after delivery against surrender of an original bill of lading, instead had been covered by the carriers P&I insurance. As an example can serve the rules of the Swedish Club which offer coverage of:

⁶⁰ East West Corporation v DKBS 1912 & Anor [2002] EWHC 83 (Comm) (07 February 2002), p 128

⁶¹ Kuwait Petroleum Corp. v. I. & D. Oil Carriers Ltd. [1994] 2 Lloyd's Rep. 541

⁶² Howard, T, Davenport, B. English Maritime Law Update 1994/95, *Journal of Maritime Law and Commerce Vol. 27 Nol 3, July, 1996*

⁶³ Swedish Club P&I Rules Section 4(a) available at:

<http://www.swedishclub.com/main.php?mcid=1&mid=129&pid=50&tid=50> (Visited 2011-12-20)

⁶⁴ Tetley, W. (2004) *Letters of indemnity at shipment and letters of guarantee at discharge*, published in *ETL* 287-344, p. 36

⁶⁵ Tetley, W. (2004) *Letters of indemnity at shipment and letters of guarantee at discharge*, published in *ETL* 287-344, p. 26

"Liability for misdelivery of cargo except: (a) as regards a negotiable bill of lading or similar document of title when delivery has been made without the production of that Bill of Lading or document by the person to whom delivery is made,"⁶⁶

The use of LOI is commonly accepted and the International Group of P&I Clubs has issued Standard Letters of Indemnity. These standard forms are divided in three groups for use accordingly:

- A. Standard form letter of indemnity to be given in return for delivering cargo without production of the original bill of lading.
- B. Standard form letter of indemnity to be given in return for delivering cargo at a port other than that stated in the bill of lading.
- C. Standard form letter of indemnity to be given in return for delivering cargo at a port other than that stated in the bill of lading and without production of the original bill of lading.

For each group there is a choice of two alternatives depending on whether the commercial party requesting delivery has an agreement with a bank that will join in, offering additional security.⁶⁷

Still, Letters of Indemnity are by some regarded as entailing risk because should the carrier become liable to the lawful consignee for misdelivery, the carrier may not be able to enforce the indemnity due to insolvency on the issuing part. If the LOI is backed by a bank guarantee, the bank may decide not to support or guarantee the LOI. Standard procedure for many carriers is to accept an LOI with a two year time limit and a 200 % of the cargo value cap. These conditions are carrier-imposed and will incur extra cost for the buyer and they might also negatively affect lines of credit.^{68 69}

3.7.SUMMARY OF CHAPTER 3

⁶⁶ Swedish Club P&I Rules Section 4(a) available at:

<http://www.swedishclub.com/main.php?mcid=1&mid=129&pid=50&tid=50> (Visited 2011-12-20)

⁶⁷ These standard letters can be accessed at: <http://www.ukpandi.com/knowledge-developments/industry-developments/international-group-standard-letters-of-indemnity/> (visited 2011-12-20)

⁶⁸ ECE/TRADE/C/CEFACT/2011/4 p. 5

⁶⁹ The standard letters of indemnity were recently amended after a decision in the England and Wales High Court (Commercial Court); the *Farenco Shipping Co.Ltd. v Daebo Shipping Co.Ltd.* [2008] EWHC 2755 (Comm) (11 November 2008) known as the Bremen Max-case. In the case, the charterers issued an LOI which included a request to owners (in consideration of which the indemnity was given) to deliver the cargo without original Bs/L to a named recipient. There turned out to be no evidence available for the cargo being delivered to the named recipient, and when a third party claimant appeared saying that they were holders of the original bills of lading, the result was that the owners had not complied with the terms of the LOI given and owners were therefore unable to rely on the indemnity. This particular decision emphasise the significant burden of proof on the owners to make sure that they know precisely to whom they are delivering/releasing the goods and the standard LOI referred to above has therefore been amended to include a phrase that places the burden of identification of the receiver on the party offering the indemnity. More information on the amendment can be found at the webpage of the Swedish Club.

In this section we have seen that the letter of credit-process is vital to cross border trading. It is a business that entails risks but electronic transactions help to reduce these risks. Both banks and ship owners would prefer electronic transactions, but there seems to be a lack of understanding between the two.

A bill of lading is the evidence of a transport agreement and the representative of the cargo; it embodies the commitment of the carrier and the claim of the consignee. This gives that the transfer of a bill of lading is also a transfer of rights. As these rights are being transferred, the different parties' rights and claims to the cargo changes, giving rise to new contractual and legal implications. These implications change from jurisdiction to jurisdiction, hampering the predictability for the trader.

The possibility to transfer the bill of lading allows traders to break new ground using the documentary sale process as it serves to secure transactions otherwise regarded to risky. However, it also impedes that same trade, in that the manual processes it entails may delay delivery and cause the carrier to rely on insecure letters of indemnity or deliver without guarantee. This practice is widely held as the main problem concerning bills of lading.

Since it ultimately is a business decision to move from paper documents to electronic, I will in the next section provide an overview of one of the main arguments for such a change; all other document systems used in trade is already or will soon be on-line, and it is not only the developed countries that lead the way forward.

4. THE BILL OF LADING IN A GLOBAL TRADE PERSPECTIVE

4.1. THE WORLD WIDE TRADE WEB

As pointed out in the introduction to this paper, international trade has much to gain by improving how business is done. The continuous global efforts in this sector has meant that the worldwide average time needed for a small to medium size enterprise to export a container of merchandise has gone down from 26.4 to 22.5 days and for import 30.9 to 25.1 days, with most improvements visible in Eastern Europe & Central Asia and Sub-Saharan Africa.⁷⁰

According to the American economic consulting company Nathan Associates Inc, the way forward is a holistic approach that will result in the interoperable computerization of all functions and processes of international trade transaction. The writers claim that in the future,

⁷⁰ Doing Business 2012, *Trading across borders*, p. 1 available at: <http://www.doingbusiness.org/data/exploretopics/trading-across-borders> (Visited 2011-12-22)

we will see systems that are “able to link all trade parties - customs administrations, exporters, importers, freight forwarders, shipping agents, customs brokers, banks, transporters, carriers, ports, airports, regulatory agencies, and statistics departments - in “e-trade” solutions that allow a one-time submission and seamless exchange of information required in trade transactions.”⁷¹

This view is corroborated by the Doing Business Project, which is cooperation between the World Bank and The International Finance Corporation. According to the Trading Across Borders report⁷², the economies with the most efficient trading environments share common features such as that they allow traders to exchange information with customs and other control agencies electronically. The latest development is that economies are now linking traders, customs and all agencies involved through an electronic single-window system that in the best case allows traders to file standard information and documents through a single entry point to fulfill all import, export and transit-related regulatory requirements and then shares relevant information with all parties involved in trade, including private participants such as banks and insurance companies as well as public agencies such as immigration and vehicle registration authorities.⁷³

There are now several transport related systems that demand electronic input of data, such as the European customs initiative EMCS⁷⁴, the REACH-rules for hazardous cargo that demands Safety Data Sheets⁷⁵ and the EU 24 hour advance manifest rules⁷⁶. IMO is currently implementing its eNavigation plan⁷⁷, aiming at standardizing exchange of navigational and other maritime data. E-commerce and computer systems in general are also becoming more and more common to the world of shipping as ships chandlers and other suppliers move their marketing and supply chain to new media. It is my opinion that the move towards integrating information and communication technology in the shipping world is a necessity for the industry to continue developing. The situation has been accurately described in a report by the United Nations Conference on Trade and Development (UNCTAD):

⁷¹ Hekala, W, Damuth, R. (2009) *Holistic Modernization of the International Trade Transaction Process*, Nathan Associates Inc. Available at: <http://www.celticfwd.ie/userfiles/file/holistic.pdf> (Visited 2011-12-21)

⁷² Doing Business 2012, *Trading across borders*, p. 3 available at: <http://www.doingbusiness.org/data/exploretopics/trading-across-borders> (Visited 2011-12-22)

⁷³ For an overview of Single Window-approach: <http://www.uncitral.org/pdf/english/colloquia/EC/Luddy.pdf> (Visited: 2011-12-21)

⁷⁴ http://ec.europa.eu/taxation_customs/taxation/excise_duties/circulation_control/index_en.htm (Visited 2011-12-22)

⁷⁵ <http://echa.europa.eu/web/guest/regulations/reach> (Visited 2011-12-22)

⁷⁶ http://ec.europa.eu/ecip/security_amendment/index_en.htm (Visited 2011-12-22)

⁷⁷ <http://www.imo.org/OurWork/Safety/Navigation/Pages/eNavigation.aspx> (Visited 2011-12-22)

“The capacity to handle information exchanges efficiently will be a determining factor for the survival of transportation and logistics service providers on the global scene.”⁷⁸

4.2. RECOMMENDATION 12 BY UNECE

Under the umbrella of the United Nations, a number of organisations study the development of world trade. One such organisation is UNCEFACT, which from an organisational perspective is a part of the United Nations framework of the Economic and Social Council, ECOSOC. UNCEFACT serves as the focal point for trade facilitation recommendations and electronic business standards, covering both commercial and government business processes that can foster growth in international trade and related services and it is mandated to develop a programme of work of global relevance to achieve improved worldwide coordination and cooperation in these areas. UNCEFACT publishes a number of recommendations and in 2011 the UNECE plenary approved of the third edition of Recommendation N^o. 12, “*Measures to facilitate maritime transport documents procedures*”.⁷⁹ The message of the document is clear; the sea waybill offers many advantages over the bill of lading and all parties should consider using the sea waybill wherever possible instead of the bill of lading since “the information it contains can be conveyed by whatever method is most efficient and reliable to both the seller and the buyer, including by post, fax, e-mail, scanned imaging or electronic messaging”. In comparison, when using the bill of lading the original document must be sent by the seller to the buyer which often causes delays in ports due to the document not yet being available to the buyer, as explained in other sections of this thesis.

The Recommendation briefly reviews the different electronic alternatives available and notes that the central registry systems, see Chapter 6, offer the needed functionality but are costly, complex and inflexible, mainly due to the document of title character of the bill of lading. The systems available to manage electronic sea waybills, often based on international standards, are in contrast already widely used since the systems need not to be so complex.

The Recommendation is, to my judgement, rather undifferentiated in that it suggests that it is third parties such as banks that want the bill of lading (section 40), and it has, according to Johan Pontén, chairman of the working group that has produced the document, attracted some criticism during the drafting stages⁸⁰. According to working documents made available to the author of this thesis, the banking industries of countries such as Italy and Japan do not approve of a change from bill of lading to sea waybill, also the United States opposed to early versions of

⁷⁸ UNCTAD, Electronic Commerce and International Transport Services, TD/B/COM.3/EM12/2, p. 5

⁷⁹ Available at: <http://www.unece.org/tradewelcome/areas-of-work/un-centre-for-trade-facilitation-and-e-business-uncefact/outputs/cefactrecommendationsrec-index/list-of-trade-facilitation-recommendations-n-11-to-15.html> (Visited 2011-12-22)

⁸⁰ Telephone interview with Johan Pontén

the recommendation. However, the recommendation has been approved and little has been heard against it, maybe because, as suggested by Gordon Cragge, former chairman of the working group, considering the financial situation of the world, the banks has other things on their minds right now⁸¹.

To me, the value of the recommendation lies in that it acknowledges the problems inherent to the paper bill of lading and the effects that they have on world trade. The recommendation also acknowledges that electronic alternatives to both negotiable and non-negotiable transport documents may be a way forward but, as the Rotterdam Rules are still not in force, additional legislation is needed in many jurisdictions.

4.3. SUMMARY OF CHAPTER 4

This chapter served to establish that international trade is to a large extent managed using computer systems, and that the administrative processes that are not yet on-line soon will be. We have also seen that the international trade community is constantly looking for ways to improve and streamline these processes; the bill of lading is no exception.

As we will see in the next section, existing legislation covering bills of lading was to a great extent written without regard to electronic documents, simply because they did not exist at the time. Now they do, and I will therefore investigate whether it is possible by existing laws to fully recreate the functionality of the bill of lading by using electronic documents. To do so it is important to look at how a contract is agreed and how the rights that flow from that contract may be transferred to new parties since the ability to perform that transfer is a key quality to the paper bill of lading. It is also vital to understand if there are security issues when using electronic documents, and how they compare to the paper equivalents.

5. THE ELECTRONIC BILL OF LADING

5.1. LAWS AFFECTING THE ELECTRONIC BILL OF LADING

5.1.1. INTERNATIONAL AND REGIONAL LAW

On an international level we can note that, as stated in the section above on the law of transport, there are several international conventions in force (CISG, Unidroit Principles, the Hague Rules, the Hague-Visby Rules and the Hamburg Rules). None of them provide statutes on electronic documents of title. The Models laws on Electronic Commerce and Digital Signatures do provide helpful rules as they define the functional-equivalent approach that provides for equal treatment

⁸¹ Telephone interview with Gordon Cragge

of paper and electronic documents but they do not have the force of law. The model laws are interesting in that they are based on a broad international cooperation and that they do provide solutions to many of the issues associated with electronic commerce and because of this they merit further comments below. Another future international possibility, the Rotterdam Rules, will also be studied below, see Chapter 7.

On a regional level, there have been several initiatives within the EU to forward electronic commerce. These have been implemented in Swedish national law and will be commented upon below where appropriate.

5.1.2. THE UNCITRAL MODEL LAW ON ELECTRONIC COMMERCE

In order to establish a common understanding of electronic commerce, it is useful to begin this part of the thesis by examining the UNCITRAL Model Law on Electronic Commerce.

The Model Law was developed to offer national legislators a set of internationally acceptable rules to replace their own legislation and is designed to be incorporated directly into the domestic law of those countries willing to do so. The objective of the Model Law on Electronic Commerce is to enable, or to facilitate, the use of electronic commerce and to ensure equal treatment of users of paper documents and of electronic means of communication.

This is achieved by establishing principles of non-discrimination, technological neutrality and functional equivalence. These principles are defined as follows:

“The principle of non-discrimination ensures that a document would not be denied legal effect, validity or enforceability solely on the grounds that it is in electronic form. The principle of technological neutrality mandates the adoption of provisions that are neutral with respect to technology used. In light of the rapid technological advances, neutral rules aim at accommodating any future development without further legislative work. The functional equivalence principle lays out criteria under which electronic communications may be considered equivalent to paper-based communications. In particular, it sets out the specific requirements that electronic communications need to meet in order to fulfil the same purposes and functions that certain notions in the traditional paper-based system - for example, "writing," "original," "signed," and "record"- seek to achieve.”⁸²

Of particular interest to this work is the principle of functional equivalence since it is the basis of all the current services that offer electronic bills of lading, see Chapter 6. The principle, as visible in articles 5-9 of the Model Law, establishes that a traditional document or process may be substituted by an electronic alternative as long as the electronic alternative achieves the same result or function.⁸³ When examining current legislation in the following, the expression

⁸² See: http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model.html (Visited 2011-12-21)

⁸³ Hultmark, C. (1998) *Elektronisk handel och avtalsrätt*, p. 21

“electronic document” is to be understood as the electronic functional equivalent of a traditional document or process.

5.1.3. ELECTRONIC CONTRACTS AND DOCUMENTS BY SWEDISH LAW

Electronic contracting is said to be dependent on authenticity, enforceability and confidentiality.⁸⁴ This would for example mean ensuring the satisfaction of writing and signing requirements; the probative effect of electronic communications; the determination of the place of contract formation; the allocation of liability for erroneous messages, communication failures, and system breakdowns; and the safeguarding of privacy.⁸⁵

It is by these standards that I in the following section will study if the Swedish law as it exists allows contracts to be concluded and documented electronically, and whether negotiable documents of title may exist and be transferred in electronic format.

5.1.3.1. THE CONTRACT - FORMATION

In Sweden there is no particular legislation covering how agreements are concluded using electronic means of communication.⁸⁶ Neither the UNCITRAL Model Law on Electronic Commerce nor the E-Commerce Directive caused the Swedish legislators to add to or change current statutes in this matter. The position has rather been that these agreements are already covered by the Swedish Contracts Act (Lag (1915:218) om avtal och andra rättshandlingar på förmögenhetsrättens område) and that since this law does not pose any formal requirements on how contracts are agreed, it applies equally to both paper and electronic documents.⁸⁷ This means that when judging on questions such as where and when an electronic contract was formed, it will be put to the same tests as a paper contract.

An agreement can be entered into in many ways. The basic model used by the legislator is the offer–acceptance model where a binding agreement exists from the moment a declaration of will to accept the offer has been made. With a few exceptions, that all fall outside the scope of this thesis,⁸⁸ there are no formality requirements; meaning that if there is a will to agree then an agreement can be concluded by a nod, a handshake or a signature, they will all result in a valid agreement. Also acceptance by action will conclude the agreement.⁸⁹ The freedom of contract also means that parties to an agreement may agree themselves on formality requirements. It is

⁸⁴ DiMatteo, L.A., *Law of International Contracting*. 2008, Gainesville: Wolters Kluwer Law & Business p. 428

⁸⁵ Yannopoulos A.N.(Ed.), *Ocean Bills of Lading: Traditional Forms, Substitutes and EDI Systems*, (The Hague, Kluwer Law International, International Academy of comparative Law, 1995) p. 32

⁸⁶ Kirchberger C. (Ed.) (2011) *Cyber law in Sweden*, p. 145

⁸⁷ Adlercreutz, A. (2002), *Avtalsrätt I*, p 48

⁸⁸ For more information, see Adlercreutz, A. (2002), *Avtalsrätt I*, p. 133

⁸⁹ Adlercreutz, A. (2002), *Avtalsrätt I*, p. 47

for example common to agree that a written agreement shall not be valid until duly signed, this in order to avoid misunderstandings as to at what level during the negotiations the final agreement was reached and what it then was meant to contain. My conclusion is that the lack of requirements on and the possibility to agree on formal requirements means that contracts may be entered into using electronic means of communication and also that the parties to a contract, for example a sales contract, may agree on subsequent use of electronic means of communication and what methods and formalities that will apply. If one party refuses to use electronic means of communication to conclude agreements, the parties would have to resort to traditional methods.

Should there be a mistake or an error during the course of concluding an agreement, the Contracts Act will apply when judging on the validity of the contract. Mistakes by one of the parties, such as to the content of the message, will be on the risk of the sending party, judged according to the principle of trust as expressed in the Contracts Act, section 32 first paragraph. Errors due to technical problems during transfer will, arguably, be judged by the second paragraph, same section. The sender of a message that has been corrupted by the system during transfer will have to stand by that message as long as the receiver is in good faith. However, due to the nature of computer systems, and especially when considering the use of digital signatures as described below, it will probably be obvious to the receiver that the document is corrupt and the sender will therefore not be liable.⁹⁰

The EU Directive on electronic commerce made it mandatory to all member states to introduce functional equivalence regarding conclusion of contracts:

“Member States shall ensure that their legal system allows contracts to be concluded by electronic means. Member States shall in particular ensure that the legal requirements applicable to the contractual process neither create obstacles for the use of electronic contracts nor result in such contracts being deprived of legal effectiveness and validity on account of their having been made by electronic means.”⁹¹

The article did not cause the Swedish Government to change the Contracts Act since the law did not stipulate any form requirements.

5.1.3.2. TRANSFER OF CONTRACTUAL RIGHTS

Once a contract has been concluded, it may be relevant to transfer privity to that contract to a third party, for instance if a bill of lading has been resold or used as collateral. As established above, this is a key quality of the bill of lading, that it is negotiable. Transfer of a bill of lading is

⁹⁰ Hultmark, C. (1998) *Elektronisk handel och avtalsrätt*, p. 56

⁹¹ Directive 2000/31/EC, Article 9

handled manually and to be the physical holder of such a document is to “have the key to the warehouse”. Does the law allow this functionality when using electronic means of communication? The way to achieve negotiability was discussed by the UNCITRAL Working Group IV and the conclusion was that:

“This result could be achieved through a registry system, where transactions would be recorded and managed through a central authority, or through a technical device based on cryptography. Either the registry system or the technical device would need to provide a reasonable guarantee as to the singularity and the authenticity of the transmitted data, in the case of transactions that would have used transferable or quasi-negotiable documents to transfer rights which were intended to be exclusive.”⁹²

Such registry systems are in use today, and they provide negotiability by ensuring that only one electronic document represents the cargo in question and by giving access to only one party, the rightful holder of the document, who may add to, amend or transfer the document to a subsequent holder. (See Chapter 6) The method is known as the principle of singularity.⁹³ For the new holder to legally become part to the underlying contract, the today existing registry systems makes use of the concept of novation, whereby a new transport contract is automatically entered into between the carrier and the new consignee every time title to the goods need to be transferred. The old contract then becomes null and void.

Since there is no functional-equivalent provision in Swedish law giving electronic bills of lading, viz. records in central registries, the same legal qualities as paper bills of lading, it is unclear whether an electronic bill of lading here constitutes a document of title. If having an electronic bill of lading means that you by Swedish law do not have a document of title, it also means that being the new holder of the electronic bill of lading when goods is resold during transport does not mean you have the right to control of the goods as described above. As established in section 3.3.4, there is no provision in the Swedish law that defines the right to control of goods when no document of title has been issued, leaving it unclear how electronic bills of lading, as construed in central-registry systems, may be transferred with legal binding effect. Legal writers have suggested that the situation may be resolved by having the seller notifying the carrier of the transfer of his right to control of the goods to the buyer.⁹⁴ This would mean that the system must be designed to initiate a notification from the seller to the carrier every time goods are being resold. As the situation, to my knowledge, has not been tried in court, it remains unclear how electronic bills of lading in central registry-systems can be transferred to new holders and thereby establishing the new holders right to control of the goods. If the law was to be updated

⁹² UNCITRAL, A/CN.9/WG.IV/WP.69 p. 23, 24

⁹³ Goldby, M. (2011) *Legislating to facilitate the use of electronic transferable records: A case study* p 5, 6

⁹⁴ Grönfors, K. (1976) *Dokumentlösa transporter och kreditsäkerhet*, Festskrift till Knut Rodhe, p. 231

to accommodate functional equivalence between electronic and paper transport documents, this problem would be resolved.

5.1.3.3. THE DOCUMENT – FORMATION AND TRANSFER

As established above, in Sweden, a contract may be agreed using electronic means of communication but it is unclear how such contracts may be transferred to a new partner and subsequently binding that partner. But what about the document used to substantiate the contract and its terms and conditions? Is it legally possible to record and communicate this information electronically and will such documentation have evidentiary value in a court?

When deciding on the probative value of a document the general rule in Sweden and many other jurisdictions is that a party may submit any evidence he likes and that the judge freely may decide on the probative value of that evidence, see the Swedish Judicial Code chapter 35 s. 1. This theoretically puts the paper and the electronic document on equal par, but due to the differences in character, they must be evaluated using different methods. The probative value of a signed paper document, which may vary, depends on the paper's ability to prove the content of a message, its integrity and the ability to identify the sender.⁹⁵ When using electronic means of communication, it becomes important to reach at least the same level of security and probative value as that of the paper document. The electronic document has in its nature certain security disadvantages; 1) - the document itself does not exist in a to the human eye immediately readable form; 2) - strings of data are easily copied from one system to another.

The effect of the first disadvantage is that it is hard to even compare the two alternatives and it is questionable to say that, using the same terminology as when discussing a paper document, an original electronic document exists.⁹⁶ Still, there are arguments suggesting that an electronic document in some aspects has a very high evidentiary effect. An agreement concluded using electronic communication often leaves an electronic trail of evidence, viz. copies of or records of the communication preceding the agreement are often still available, be it as an exchange of e-mails stored on a mail-server or as a database that stores information that has been entered in an online web-form. This information can be presented and read on a screen or it may be printed on paper, and will as such be a help when interpreting the actual agreement. The actual probative value assigned to such evidence is a matter for the court to decide but there are ways to improve this value. Should the aforementioned electronic communication have been stored on a system belonging to a neutral third party that can provide an affidavit regarding its authenticity, it is likely that a court would assign more credibility than if the information was submitted by

⁹⁵ Hultmark, C. (1998) *Elektronisk handel och avtalsrätt*, p 85

⁹⁶ Janson, I (1997), *Den elektroniska marknadsplatsen: avtals-, köp- och bevisrättsliga aspekter*, p. 32

one of the parties. The same would apply if the parties have made use of authenticating technologies such as electronic signatures, see section 4.2.3.4.

The second disadvantage may cause difficulties when trying to establish the integrity and originality of a document. How can a holder of an electronic transport document be sure that no other copy exists and that someone else will not claim delivery of the goods that he has bought? In early attempts to build systems for electronic bills of lading based on EDI, this was a major concern since the possibility that the message might be fraudulently or mistakenly multiplied could not be excluded.⁹⁷ Today, as shown above, this problem has been solved by the introduction of the concept of singularity, i.e. that at any given time only one data object may indicate constructive possession of the goods represented by the electronic document of title and only one party to the contract can have access to add to or change that document, and the use of technology to enforce these rules. This may, as illustrated by the sections below on the currently existing electronic alternatives to bills of lading, be done in different ways but the functionality remains the same; the probative value of the electronic document of title is secured since the technology used will only allow one party to have control. It will also provide a full auditable trail, should there be any concerns regarding the history and authenticity of the document, and thereby laying the foundation for the negotiability of the electronic document of title. The UNCITRAL Working Group IV established in 1996 that when using technology that meets legal and technical requirements, electronic documents has equal or better probative value than paper equivalents when it comes to certifying the content of a document and the identity of the source⁹⁸, which I hold as a valid conclusion also today.

It serves to be added that the parties may agree beforehand what can be submitted as evidence, although not on how the court values said evidence. Such clauses are common in agreements on electronic communication between parties, such as EDI-agreements.⁹⁹

5.1.3.4. ELECTRONIC SIGNATURES

An electronic signature is defined by UNCITRAL as “data in an electronic form in, affixed to or logically associated with, a data message, which may be used to identify the signatory in relation to the data message and indicate the signatory’s approval of information contained in the data message.” In the Swedish law on electronic signatures, the Act on Qualified Electronic Signatures, SFS 2000:832, the definition also includes that the data “has not been altered”. An

⁹⁷ UNCITRAL, A/CN.9/WG.IV/WP.69 p 4

⁹⁸ UNCITRAL, A/CN.9/WG.IV/WP.69 p 14

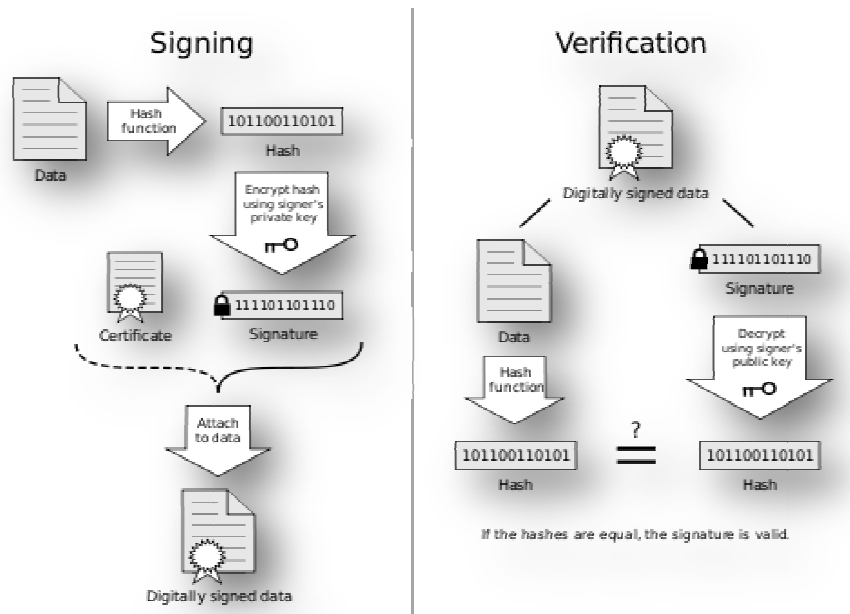
⁹⁹ Hultmark, C. (1998) *Elektronisk handel och avtalsrätt*, p. 88

electronic signature may be in different forms, such as biometric records, scanned manuscript signatures and digital (cryptographical) signatures, all providing different levels of security.¹⁰⁰

The digital signature, which is considered to have a very high level of security and that is of widespread use around the world, makes use of the combination of a digital certificate and a pair of digital keys to encrypt and decrypt the message. The digital certificate is in essence a text document that contains information on the holder of that certificate and that is attached and encrypted along with the data message that is to be sent. The key pair is used to encrypt and decrypt the data message and the certificate. One key is private and is used to encrypt the message before sending and the other key is public and is used to decrypt the message upon receipt. The public key can only decipher the messages of the private key, meaning that if the decryption process works and the message become legible, the message can only have been sent by the holder of the private key, and it has not been altered on the way. In order to ensure that correct person holds the private key, the certificate and keys are issued by a Certification Authority (CA) who may verify the identity the signatory and also block the use of a pair of keys, should they have been corrupted or misused.

The process of signing starts with that the data message is condensed into a hash, which serves to create a data string suitable for encryption. The hash is, much like a fingerprint, unique to each message since there is very little probability that two messages would generate the same hash. The hash is then encrypted using the private key and combined with the digital certificate to create the digital signature which is then attached to the data message. Upon receipt, the signature is decrypted and the hash value of the signature is compared to a new hash value of the data message, and if they match, the receiver can be sure of that the message comes from the correct sender and that it has not been altered on the way. The process can be illustrated by this image:

¹⁰⁰ Wang M. (2007) Electronic signatures - Do the regulations on electronic signatures facilitate international electronic commerce? A critical review, *Computer Law & Security Review*, Volume 23, Issue 1, Pages 32-41, s. 1



Source: http://en.wikipedia.org/wiki/File:Digital_Signature_diagram.svg

For the system to work it is vital that the private key is kept secret by its holder. It is often locked for other individuals by the use of pin-codes or smart cards. An important quality of digital signatures is that it offers *non-repudiation of origin*, which means that an entity that has signed a message cannot at a later time deny having signed it.

The evidentiary effect of the electronic signature has by both national and international legislation been assigned equal value as to that of manual signatures. Following The Electronic Signatures Directive 1999/93/EC, the EU states have similarly worded statutes on electronic signatures. In Sweden the law states that qualified electronic signatures may be used where so required by law and not prohibited. As to admissibility and evidentiary effect, the courts will rely on the above mentioned principles of freedom of evidence and free evaluation of probative value, but in the preparatory work of the Swedish law on electronic signatures, it was stated that electronic signatures of high quality are equally or more safe than traditional signatures, see s. 17, Lag (2000:832) om kvalificerade elektroniska signaturer.¹⁰¹

As stated in the below sections on Bolero and ESS, an electronic bill of lading must, when using the currently available systems, be signed using a qualified electronic signature.

5.1.4. DOCUMENT SECURITY

¹⁰¹ See also Proposition 1999/2000:117 Lag om kvalificerade elektroniska signaturer, m.m. Section 4.2.

As stated in the introduction to this thesis, parties of the trade industry have been regarded as being afraid of the changes that the new technology may cause. In the words of Alan Boylan, a vice president of sea freight technology and global freight management at Exel PLC:

“There’s a lot of history and suspicion to overcome, we all complain about too much paper. But when it comes to negotiable documents, a lot of people prefer to see the dollars in their hand rather than being told that the money is in the bank and everything is OK. It’s an area that is very vulnerable to fraud.”¹⁰²

Because of this fear of change, it is vital that services offering electronic bills of lading are perceived at least as secure as paper bills of lading. Therefore, I will in this section study the physical security of each media, looking at if and how it may be subject to maritime fraud. Maritime fraud has been defined by the International Maritime Bureau¹⁰³ as follows:

“An international trade transaction involves several parties – buyer, seller, shipowner, charterer, ship’s master or crew, insurer, banker, broker or agent. Maritime fraud occurs when one of these parties succeeds, unjustly or illegally, in obtaining money or goods from another party to whom, on the face of it, he has undertaken specific trade, transport and financial obligations.”¹⁰⁴

To obtain money or goods may be done in a multitude of ways; here it is useful to focus on those ways that utilize the characteristics of the media used for trading, be it paper or electronic systems. It is necessary to study some of the prerequisites required for the definition of the relevant crimes, although I will not comment on subjective requisites since these normally are media independent. Paul Todd divides fraud involving documentation in two kinds, where the first kind involves presentation of a bill of lading at delivery by someone who is not the owner. The person actually presenting the bill of lading may or may not be directly involved in the criminal act; it may very well be that this person has bought the bill of lading in good faith. At the other end of the spectra is the person who is claiming delivery after having stolen or forged the bill of lading himself. The second kind of documentary fraud is the one of misrepresentation. Such a case could be that a bill of lading is issued for cargo that does not exist and that this fake document is then sold on; or it could be that the bill of lading contains wrong information on the condition or quantity of the goods, causing a buyer to pay more than if he had known the true condition of the goods.¹⁰⁵

A type of fraud that is of particular interest to this thesis, considering the discussion above regarding delivery without presentation of an original bill of lading, is where delivery is made

¹⁰² As cited by Dubovec, M. (2006) *The Problems and Possibilities for Using Electronic Bills of Lading as Collateral*. Arizona Journal of International & Comparative Law Vol. 23, No 2, p. 447.

¹⁰³ The ICC International Maritime Bureau (IMB) is a specialised division of the International Chamber Of Commerce which serves as focal point in the fight against all types of maritime crime and malpractice.

¹⁰⁴ As cited by Todd, P. (2010). *Maritime fraud and piracy*. 2. ed. s. 2.008.

¹⁰⁵ Todd, P. (2010). *Maritime fraud and piracy*. 2. ed. s. 2.008

against a forged bill of lading. A good example can be found in *Motis Exports Ltd v Dampskibsselskapet AF 1912 Aktieselskap*,¹⁰⁶ where forged bills of lading were used to obtain delivery orders, which were subsequently used to claim delivery of the goods. Here Rix J. upheld the carriers' liability for delivering without presentation of an original bill of lading according to the following:

"If a shipowner was entitled to deliver goods against a forged bill of lading, then the integrity of the bill as the key to a floating warehouse would be lost. Moreover, as between shipowner and true goods' owner, it is the shipowner who controls the form, signature and issue of his bills, even if as a matter of practice he may delegate much of that to his time charterers or their agents. If one of two innocent people must suffer for the fraud of a third, it is better that the loss falls on the shipowner, whose responsibility it is both to look to the integrity of his bills and to care for the cargo in his possession and to deliver it aright, rather than on the true goods' owner, who holds a valid bill and expects to receive his goods in return for it."

From this follows that paper bills of lading can be forged and that if a carrier delivers goods against such a forged bill of lading, it is likely that he will be held liable. To understand whether it is possible to forge an electronic bill of lading and who will be held liable in such a case, the crime of forgery and how it applies to the electronic media must first be examined.

The crime forgery is in Swedish law regulated in the Penal Code (*Brottsbalken, BrB*), chapter 14 section 1 (here *BrB 14:1*):

A person who, by writing the name of another person, real or fictitious, or by deceit obtains another's signature or in other ways produces a false document or deceitfully alters or adds to a genuine document, shall, if the act jeopardises proof, be sentenced for falsification of a document to imprisonment for at most two years.

A document is to be considered as including a protocol, contract, promissory note, certificate or other record established as evidence or otherwise important as evidence and also an identification card, ticket or similar evidential token.¹⁰⁷

From this follows that the prerequisites needed to be met for the crime to be accomplished are that the object in question must be a document in the meaning of the law (in Swedish "urkund"), there must have been an act of forgery and there must have been a danger that the forged object would be used as evidence of some sort.

5.1.4.1. THE ELECTRONIC BILL OF LADING AS A DOCUMENT

In the cited paragraph, examples are given of what is regarded as a document but since the law was written in the nineteen forties, nothing is said about electronic documents. The preparatory works defines records as "written documents with importance as evidence, even if they have not been specifically produced for this purpose" (my translation). It must also state by whom it has

¹⁰⁶ *Motis Exports Ltd v Dampskibsselskapet AF 1912, Aktieselskap* [2000] 1 Lloyd's Rep 211

¹⁰⁷ Official translation: <http://www.sweden.gov.se/sb/d/3288/a/19568> (Visited 2011-12-21)

been issued. As further exemplification of what constitutes a record, the preparatory works suggests “Dictaphone rolls and talking film”, which in my view do imply openness towards new media.¹⁰⁸

The view on what constitutes a document in the meaning of this statute has changed during the years, which is reflected in Swedish Case law on the matter. In the case NJA 1972 p 643, a parking ticket that featured hole punch marks for automatic data treatment by computers was regarded as a document since its purpose was to serve as evidence. In the case NJA 1991 p 739 a tachograph chart was also regarded as a document since the chart formed part of an evidentiary chain originating from the traffic authority. The latter case has been criticized since it risks stretching the meaning of “document” to also encompass records produced technically¹⁰⁹.

In a recent case, NJA 2009 p 111, the Supreme Court of Sweden concluded that credit cards without print but with a magnetic strip containing data that falsely alleged the card to be a valid credit card was a document in the meaning of BrB 14:1. This is interesting to this thesis since it acknowledges that falsification of data stored in a format that can not be read by the human eye can still be forgery of a document in the meaning of BrB 14:1.

Since there is no definite ruling on the matter establishing the current situation, I can only speculate as to what verdict a court would reach if it today were to try whether an electronic bill of lading is a document in the meaning of BrB 14:1. Considering the case law and investigations referred to above, and the fact that electronic bills of lading as they exist today make extensive use of digital signatures and that they are contained in secure networks with restricted access, my view is that an electronic bill of lading would be protected under BrB 14:1.

The Swedish legislator have during the last decade on repeated occasions looked into the matter of forgery of electronic documents. The latest suggestion is to include electronic documents that have been produced as evidence or are of importance as evidence and whose origin may be adequately verified.¹¹⁰ It still remains to see if the suggested legislation will be realised. It is my opinion that a realisation of the proposed legislation would serve to combat prejudices and further the use of electronic documents by reducing the fear of change.

5.1.4.2. THE ACT OF FORGERY

To forge a document in the meaning of BrB 14:1 entails misrepresenting who is the originator of the document. Electronic bills of lading, as used today, are signed using qualified electronic

¹⁰⁸ NJA II 1948 p. 373 (Prop 1948:80)

¹⁰⁹ SOU 2007:92 section 6.7.2.1

¹¹⁰ SOU 2007:92 p. 121

signatures, which, as showed above, from a legal perspective are equal to manual signatures. From this follows that signing a document electronically in such a way that the document is perceived to be signed by someone else constitutes forgery in the meaning of BrB 14:1.

The act of forging an electronic signature may also fall within the scope of Section 9c of Chapter 8, the Swedish Penal Code, which reads:

“A person who, in cases other than those defined in Sections 8 and 9, unlawfully obtains access to a recording for automatic data processing or unlawfully alters or erases or inserts such a recording in a register, shall be sentenced for breach of data secrecy to a fine or imprisonment for at most two years. A recording in this context includes even information that is being processed by electronic or similar means for use with automatic data processing.”^{111 112}

It is possible that a person who has signed a document claims that he has not done so and instead blames someone else. In such a case the burden of proof lies with that person, i.e. he needs to show that he has kept his key securely and that he has cancelled the key promptly.¹¹³ Also, in the case of electronic bills of lading as used today, the multi partite agreements states that the signing party bears the liability for each document.¹¹⁴

The act of forgery also includes falsely producing, amending or adding to a document. Should it be possible to change an electronically signed document, this would clearly constitute both forgery and breach of data secrecy. But, as noted above, it is not considered possible to change a document that has been signed electronically.

5.1.4.3. DANGER IN RESPECT OF EVIDENCE

This prerequisite in turn requires three conditions fulfilled: 1) – that the forgery is good enough for it to be mistaken for the original; 2) - that there is a risk of the document being used and 3) - that it would cause damage or inconvenience.¹¹⁵ Considering what has been said on electronic signatures, it is most likely that a forged electronic bill of lading that passes through the electronic security systems of the CA and the TTP fulfils the first condition. As for the second and third condition, a forged electronic bill of lading would always entail such a risk since it constitutes evidence of a contract of carriage, meaning that there are at least two parties with interest in the document in question. Should one party, or even an unknown third party, forge

¹¹¹ Official translation: <http://www.sweden.gov.se/sb/d/3288/a/19568> (Visited 2011-12-21)

¹¹² This statute is the implementation of Article 4 of The Convention on Cybercrime (ETS 185): “Each Party shall adopt such legislative and other measures as may be necessary to establish as criminal offences under its domestic law, when committed intentionally, the damaging, deletion, deterioration, alteration or suppression of computer data without right.”

¹¹³ Hultmark, C. (1998) *Elektronisk handel och avtalsrätt*, p. 97

¹¹⁴ See Bolero Rulebook section 2.2.1

¹¹⁵ Holmqvist, L. (2009). *Brottsbalken: en kommentar. Del 2*, s. 14.40-44

the bill of lading, the other part to the contract would inevitably be put in harms way. In sum, a forged electronic bill of lading would most certainly fulfil the evidence-prerequisite.

From the above follows that should an electronic bill of lading be forged through misrepresenting who the sender is, the act would constitute the crime of forgery, if it can be held for certain that an electronic document is a document in the sense of the law. It is my opinion that the law lacks in clarity on this point and that the amendments as suggested above would resolve this matter, clarifying the status of the electronic document.

5.1.5. AN INTERNATIONAL OUTLOOK

5.1.5.1. UNITED KINGDOM

In the UK, the rights and liabilities under contracts of carriage of goods are governed by the Carriage of Goods by Sea Act 1924 (COGSA 1924). This statute could apply to electronic equivalents of bills of lading, see COGSA 1(5), but it does not since the English Secretary of State has not issued any regulations to this effect, nor has the English courts recognised such use by the market place.¹¹⁶ This means that a contract of carriage of goods that has been entered into can not be transferred to another party by use of electronic means of communication. Instead, a new contract must be entered into every time a transfer of rights is required, as explained in section 3.5.

The Law Commission noted the existence of central registry systems and their use of the novation method in 2001 and concluded that since these systems worked legally and there was no other technology present, there was no need for further legislation, at least not until what was to become known as the Rotterdam Rules were completed.¹¹⁷ This leaves the UK in a similar situation as that of Sweden; there is no clear legislation on how to transfer rights without the use of a paper document.

As noted above, the UK has implemented the E-Commerce directive in the Electronic Communications Act 2000, acknowledging digital signatures. The UK has also transposed the E-Commerce Directive, Directive 2000/31/EC, as The Electronic Commerce (EC Directive) Regulations 2002, meaning that formation of contracts between commercial parties may be done electronically, see in particular section 9(1). What seems to be lacking in order to introduce

¹¹⁶ Goldby, M. (2011) *Legislating to facilitate the use of electronic transferable records: A case study*, p. 3

¹¹⁷ Electronic Commerce - Formal Requirements in Commercial Transactions: Advice from the Law Commission, Law Commission, December 2001 p. 24

effective systems for electronic bills of lading is the legal possibility to electronically transfer documents of title.¹¹⁸

As regards digital signatures, the corresponding law in the UK states that in any legal proceedings electronic signatures shall be admissible in relation to any question as to the authenticity of the communication or data or as to the integrity of the communication or data. The act only states that electronic signatures are admissible, the evidentiary value is left to the court to decide, see section 7 of the UK Electronic Communication Act, It serves to add that the English government has published several guidelines on electronic commerce and electronic signatures in order to promote its use.¹¹⁹

5.1.5.2. UNITED STATES OF AMERICA

In the US, the model state law Uniform Electronic Transactions Act (UETA) and the federal Electronic Signatures in Global and National Commerce Act (E-SIGN) provides the statutory provisions needed to achieve functional equivalence between traditional and electronic contracts. To further clarify the position, the Uniform Commercial Code (UCC) was revised in 2003 “to provide a framework for the further development of electronic documents of title and to update the article for modern times in light of state, federal and international developments”.¹²⁰ Quite simply, the Article 7 makes use of the definitions of the UCC to establish that tangible and electronic documents are equal and hereby expresses a functional equivalent-approach.

The article is written considering that the systems for electronic documents of title created up until that time mostly made use of “closed” systems where participants agree to be bound by a master agreement and records are kept in a central registry, and under the assumption that these systems will continue to evolve, but also recognizing that new “open” systems may evolve. To both kinds of systems, the key to the negotiability of electronic documents of title must be the ability to control the record in question, since it embodies the concepts of indorsement and possession as applied to tangible documents of title. Therefore the statute sets out the tests needed to establish such control. For example, in order for a system to satisfy the requisites defined, it must reliably be able to identify *the* person to which an electronic document of title has been issued or transferred and it must only allow *that* person to add to or change the record

¹¹⁸ Goldby, M. (2011) *Legislating to facilitate the use of electronic transferable records: A case study*, p. 4

¹¹⁹ See for example DTI Guide to the Electronic Communications Act 2000, available at: <http://www.bis.gov.uk/files/file14635.pdf> (visited 2011-12-21)

¹²⁰ Prefatory Note, Uniform Commercial Code, Art. 7

in question. The statute does not define the methods or standards by which these demands are met since the legislator expects the market place to develop these.¹²¹

UCC article 7-105 allows for users to change from one medium to another and “sets forth the minimum requirements that need to be fulfilled in order to give effect to the substitute document issued in the alternate medium”.¹²²

As for the risk of misfeasance or negligence in failure to transfer or misdelivery of the document, there are no particulars in this statute. Instead the legislator expects the parties to central registry systems to resolve these within the framework of the master agreements and/or the law of contract, agency and tort law. The latter is also expected to protect users of open systems.¹²³

In the US, the Electronic Signatures in Global and National Commerce Act (ESIGN) was passed in 2000. It is a federal law that applies to interstate and foreign commerce. According to this statute a contract or signature “may not be denied legal effect, validity, or enforceability solely because it is in electronic form”.¹²⁴ Electronic signatures are also approved of in the UCC Article 7-102:

*“(11) “Sign” means, with present intent to authenticate or adopt a record:
(A) to execute or adopt a tangible symbol; or
(B) to attach to or logically associate with the record an electronic sound, symbol, or process.”*

This is to say that in the USA, electronic signatures are considered functional equivalents of traditional signatures.

It is my understanding that the functional-equivalent approach as achieved by the American laws, perfectly allows a bill of lading to be either in a tangible or in an electronic format as long as the latter fulfils the prerequisite of control.

5.2. THE SWEDISH MARITIME CODE AND ELECTRONIC DOCUMENTS

The rules on cargo transport are in the SMC to be found in the 13th chapter, beginning with definitions. The actual contract of carriage by sea is not defined *per se* but in the preparatory works, reference is made to the definition used in the Hamburg Rules Article 1 paragraph 6.¹²⁵

¹²¹ UCC Article 7-106 Official Comment

¹²² Prefatory Note, UCC Article 7

¹²³ UCC Article 7-106 Official Comment

¹²⁴ Electronic Signatures in Global and National Commerce Act, Section 101, available at <http://www.gpo.gov/fdsys/pkg/PLAW-106publ229/content-detail.html> (Visited 2011-12-21)

¹²⁵ Prop. 1993/94:195 p. 210

According to this paragraph a contract of carriage by sea means “any contract whereby the carrier undertakes against payment of freight to carry goods by sea from one port to another”.

In accordance with the theory of how an agreement is concluded, as described above, SMC mandates no formal requirements on the contract of carriage itself. Instead there must be a transport document which is defined as a bill of lading or other document that is issued in evidence of the contract of carriage. The preparatory work states that the contract can be documented by a bill of lading, a waybill or other transport document or agreed without any document issued.¹²⁶ From this definition it is clear that the main objective with the transport document is to evidenciate the contract of carriage and there are no stated obstacles against the use of an electronic transport document to achieve that objective. To this can be added that the preparatory work also makes reference to the development towards electronic documents and that because of this the application of the rules on cargo should not be dependent on the issuance of a bill of lading or similar document.¹²⁷

In section 3.3.4 of this thesis it was established that SMC chap. 13 s. 52 defines the transferability of the bill of lading and that it is unclear if this can be replicated in an electronic environment since it may be suggested that no bill of lading has been issued. In addition to this it can be noted that according to SMC Chapter 13 s. 42, the carrier undertakes to deliver the goods only against surrender of the document. It is not possible to physically return an electronic bill of lading. Instead, for an electronic document-system to work according to the law, it must recreate the functions that surrendering the bill of lading entail, viz. to identify to the carrier that the person claiming delivery has a legal right to do so; that by delivering to that person, the carrier fulfils his duty and to ensure that the bill of lading is not put into circulation again. If such functionality is recreated, then the prerequisites are fulfilled.

In sum, a sea transport agreement under a documentary sale may be evidenced by a bill of lading or an other document, and that this document may be electronic, as long as it is issued in evidence of the contract of carriage. If such an electronic document can recreate the delivery against surrender-process, then it fulfills the demands put forward by the Swedish Maritime Code.

5.3. SUMMARY OF CHAPTER 5

The single window-approach is becoming a reality and sooner or later the bill of lading must adapt. Which is not easy, since the laws and traditions that form the bill of lading predates this

¹²⁶ Prop. 1993/94:195 p. 210

¹²⁷ Prop. 1993/94:195 p. 157

vision with hundreds of years. The main concern is the possibility to transfer rights, which today builds on the notion of the paper as the carrier of the value and we need a new concept that will fulfil this function. The Swedish Maritime Code is not clear on what constitutes a document. There is a risk that a court would find that an alleged electronic bill of lading is only a record in a database and that the holder of such a record has no rights against the carrier if the cargo turns out to be damaged. Neither has crime law been able to keep up with the times. Fraud using documents will most likely persist also in the age of information and communication technologies, therefore the laws must be updated to reflect the new reality. The good news are that when using electronic documents, security is equal to or better than that of paper documents; and that there are states that already has implemented laws for the new era.

Attempts have already been made to create electronic systems that aim to supply functional equivalence to the use of the bill of lading. By extensive use of the freedom of contracting they claim to have achieved just that. In the next section I will study how two of those systems work plus one that did not work.

6. CURRENT ELECTRONIC BILL OF LADING SYSTEMS

Ever since the early seventies there have been attempts to replace the paper transport document with an electronic alternative. The first public attempts were made by Atlantic Container Line (ACL) who in May 1971 introduced the Atlantic Container Line Datafreight Receipt System. ACL already had computer terminals on both sides of the Atlantic Ocean and a cable underneath it, all used to internally manage their transport system. From there it was not a long step to also use the system towards their clients.¹²⁸ As it turned out, the system could not offer the document of title-function of the bill of lading, hindering the negotiability of the document. Instead, the system worked using the equivalent of electronic sea waybills. The ACL Datafreight Receipt System has had many followers and in this chapter I will describe the CMI Rules for electronic bills of lading which has been influential on later legislation and Bolero and ESS CargoDocs, the two most dominant current offerings.

6.1. CMI RULES 1990 “RULES FOR ELECTRONIC BILLS OF LADING”

In 1990 CMI published its Rules for electronic bills of lading.¹²⁹ It is a set of rules that if applied creates a legal environment that allows the electronic transfer of negotiable transport documents using EDI standards. The rules do not have the force of law, instead the parties

¹²⁸ Grönfors, K. (1976) *Dokumentlösa transporter och kreditsäkerhet*, Festskrift till Knut Rodhe, p. 225

¹²⁹ Available at <http://cmi.admissiondigital.com/Rules-for-Electronic-Bills-of-Lading/0,2728,12832,00.html> (visited 2011-12-20)

wishing to apply them to their dealings must make them mutually binding through a contract, see Article 1. There is no central system that the parties need to subscribe to but they must agree on a common technological solution, see Article 3b.

The rules sets out a complex procedure of messages that needs to be exchanged between the parties in order to conclude the transactions desired. Each transaction is secured by the use of a unique secret private key that is issued by the carrier, meaning that the carrier must be involved in every transfer of the bill of lading. The CMI Rules has been criticised on many issues, one being that it, in the following section, does not consider mandatory national law:

“The transfer of the Right of Control and Transfer in the manner described above shall have the same effects as the transfer of such rights under a paper bill of lading”¹³⁰

This conflicts with mandatory national law in several jurisdictions, which can not be discarded by agreement by the parties.¹³¹

Other issues are the absence of provisions governing apportionment of liability, excessive responsibility of the carrier and failure to provide a way to readily determine the date and place of the issuance of the bill of lading.¹³²

As a consequence, the CMI Rules for electronic bills of lading has never been put to widespread use. It has however, been influential on the pursuant legislative debate.¹³³

6.2. BOLERO INTERNATIONAL LTD

6.2.1. THE COMPANY¹³⁴

Bolero began as an initiative of the European Commission in order to establish a global cross-industry solution to enable the dematerialisation of cross border trade processes. In 1995, following a pilot project, the user forum Bolero Association was created by interested companies with the purpose of gathering information and views on how to establish electronic business practice in international trade. In 1996, Bolero International Limited was formed as a joint venture between SWIFT and TT Club¹³⁵.

¹³⁰ CMI Rules Article 7 s 4 (d)

¹³¹ Yiannopoulos A.N, (Ed) (1995) *Ocean bills of lading: traditional forms, substitutes, and EDI systems*, p. 38

¹³² UNCITRAL Working Group IV, A/CN.9/WG.IV/WP.69 p. 16, 17

¹³³ See below section on Rotterdam rules and electronic bills of lading

¹³⁴ Information on the company and its offerings is available on its corporate website, www.bolero.net. In addition to this, the text below is based on an interview and following e-mail correspondence with Morgan Jay, Director Northern Europe and United Kingdom, Bolero International Ltd.

¹³⁵ Through Transport Mutual Insurance Association Ltd, an international transport and logistics provider of insurance and related risk management services)

In September 1999, Bolero started offering a system for electronic bills of lading, built around a Core Messaging Platform, a central registry originally built by SWIFT. The system was not a commercial success and commentators have suggested that this depended on lack of support from the banking industry.¹³⁶

6.2.2. THE PRODUCT

In the years that have followed since, Bolero has restructured its offerings and, so to say, started in the other end. The company’s focus lies now on offering corporations “out-of-the-box” multi-bank trade finance applications. The purpose of such is to facilitate corporate need for access to several bank systems at one time. This could be gathering financial information such as the value of all outstanding letters of credit from a multitude of bank sources and then to present it all in a single-window dashboard interface, as opposed to the corporations themselves first gathering the data and then manually compiling it in, for instance, a spreadsheet. It could also be the possibility to manage on-line trading with access to letters of credit, guarantees, documentary collections and supply chain finance, through one electronic interface rather than manual communication with all concerned parties. The service also works the other way, allowing banks to communicate with several corporations through one channel.

The product is offered as a Software as a Service (SaaS), meaning that the services are available to the customer over the internet and that any installation is normally not necessary on the systems of the customer. The services are built upon an infrastructure called Bolero Open4Trade, which on the Bolero website is described using the below illustration.



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The infrastructure consists of five primary components; the Core Messaging Platform, the Bolero Rulebook, the Title Registry, the Bolero Collaboration Libraries and the Bolero Compliance and Matching engine. The technological aspects of the infrastructure are not of interest to this thesis;

¹³⁶ DUBOVEC, M. (2006) *The Problems and Possibilities for Using Electronic Bills of Lading as Collateral*. Arizona Journal of International & Comparative Law Vol. 23, No. 2 p 452

suffice to note that Bolero claims its technology to be fully interoperable with the necessary industry standards and that it applies first rate security technologies.

6.2.2.1. THE BOLERO RULEBOOK

Of more interest is the Bolero Rulebook.¹³⁷ This was developed, according to Bolero, since there was little national and international law governing the use of e-commerce. From a technological perspective this was of little importance, but when exchanging negotiable instruments and concluding contracts using the exchange of data messages, a clear legal framework was required for these transactions to work. In response, Bolero undertook a legal study which resulted in the Bolero Rulebook, a multi-lateral contract that binds each user to every other user in relation to their use of the Bolero service. In this contract the users agree to treat all electronic communication as valid and that they will respect the digital signatures used to sign documents and the signature's binding force. An important part of the Bolero Rulebook is the Definitions-section, since this section defines, amongst other things, the different roles that are assigned to the parties to a contract of carriage.

The Bolero Rulebook is governed by and shall be interpreted in accordance with English law and English courts are given exclusive jurisdiction over claims on non-compliance of the rulebook, see s. 2.5.

The Hague-Visby Rules are incorporated by way of a Paramount clause stating that mandatory law and international conventions are applicable to contracts of carriage under Bolero bills of lading, see s. 3.2.4. Users may also include their own standard bill of lading terms and conditions and/or charterparty terms in the Bolero bill of lading, see s. 3.2.1-3.

The key quality of a bill of lading is its negotiability which is established through the delivery mechanism. A Bolero Bill of Lading achieves similar functionality through different means. The Bolero Rulebook defines how constructive possession of the goods under the contract of carriage changes hands through the process of novation:

“Upon the acceptance by the new Holder to-order or Consignee Holder of its Designation as such, or, at the expiry of the 24 hour period allowed for the refusal of the transfer under Rule 3.5.2 (New Holder's Right to Refuse Designation), whichever is the earlier, **a contract of carriage shall arise** between the Carrier and the new Holder-to-order or Consignee Holder either:

- (a) on the terms of the contract of carriage as contained in or evidenced by the BBL Text; or
- (b) when the Shipper is a Head Charterer, on the terms set out or incorporated in the BBL Text, as if this had contained or evidenced the original contract of carriage.” (Emphasis added)

¹³⁷ Available on-line: http://www.boleroassociation.org/dow_docs.htm (visited 2011-12-20)

The key phrase here is that “a contract shall arise”. Through this statement the automatic creation of a new legal connection is achieved and the matter of privity of contract is effectively dealt with, all in accordance with the principle of functional equivalence. For the new contract to have effect against third parties, i.e. to establish a right to control of the goods, it is vital that the carrier is notified by the seller about the transfer of that right to the new Holder. The Bolero Rulebook mandates the carrier to acknowledge all such transfers, see s. 3.4.1 (2), securing the transfer of rights. To ease the administrative burden of the carrier, accession to the Bolero Rulebook also entails an appointment of Bolero International as the carrier’s agent, allowing Bolero International to handle such acknowledgements, see s. 3.4.2.

6.2.2.2. THE TITLE REGISTRY

A Bolero Bill of Lading consists of a two components put together. The first is a text document that is sent in to the Core Messaging Platform, the second is a record in the Title Registry, the main database where the users are assigned roles in relation to the Bolero Bill of Lading. The different roles that a user may have are defined in the Bolero Rulebook; examples are Shipper, Holder, and Consignee. The Bolero Bill of Lading may also be made out To Order or be endorsed in blank to indicate transferability, see s. 3.3.

Negotiability is achieved in the Title Registry by allowing authorized users to designate the status of Holder on to the next party in the trade chain whereby the process of novation creates a new contract as described above. The novation is here also complemented by attornment since the Rulebook mandates the Carrier to acknowledge the transfer to the new Holder.¹³⁸ The system only allows each Bolero Bill of Lading to have one Holder, thereby singularity is achieved which is necessary in order to ensure that only one party can claim delivery.

6.2.3. DOCUMENTARY CREDIT

The Bolero service offerings include electronic processes for management of Letters of Credit, including Export and Import Letters of Credit. According to Bolero, the offerings are designed to be fully interoperable and compliant with the ICC’s UCP and eUCP and with SWIFT’s Category 7 Standards.

6.2.4. P&I COVERAGE

¹³⁸ Attornment is an old English legal concept that entails an acknowledgement by the bailee that he is holding the goods for the new owner, thereby achieving transfer of constructive possession. (See Goldby M. *Legislating to facilitate the use of electronic transferable records: A case study*, p. 5). Attornment is not considered necessary when endorsing a paper bill of lading but has been used to achieve transfer of constructive possession in cases where the document used was “not shewn by any mercantile custom to be a symbol of the goods, as an indorsed bill of lading is for goods at sea”(See *Dublin City Distillery Ltd v Doherty*, as cited by Treitel, G. & Reynolds, M.B. (2005) *Carver on Bills of Lading* 2nd ed. s. 6-014)

The International P&I Group have established that liabilities arising in respect of the carriage of cargo under the Bolero electronic bill of lading are covered under members' P&I insurance. In circulars published in September 2010, the 13 Clubs in the International Group advised all members that standard P&I risks associated with the carriage of cargo under an electronic bill of lading issued using Bolero services are within members' standard terms of cover, provided they have signed the Bolero Rulebook of September 1999. However, the Clubs are advising its members to be aware that participation in an electronic trading system may expose them to certain liabilities which are not of a traditional P&I nature, and which may require other insurance arrangements. Examples of such liabilities may be for breach of confidentiality undertakings or of obligations to maintain computer links.¹³⁹

6.3. ELECTRONIC SHIPPING SOLUTIONS

6.3.1. THE COMPANY

Electronic Shipping Solutions (ESS)¹⁴⁰ was founded in 2003 and it is headquartered in Valetta, Malta. The company is a privately owned corporation without known affiliations to trade parties or governments. Its single goal has been to address the inefficiencies of paper documents in shipping and to enable trading partners to use electronic documents, including the bill of lading.

The company's first initiative was to investigate the best-practices used in the tanker business and to do so ESS created the ESS-Databridge Development Group (the DDG), a forum where interested parties from the industry contributed information on how business was done today and how it ought to be done if handled electronically. In accordance with the approach adopted by ESS to target one trade and route at a time, the DDG initially included parties with interest in the North European tanker market. The work undertaken by ESS and the DDG resulted in the ESS-Databridge Services and Users Agreement (the DSUA) and the ESS-Databridge eDocs Exchange.

6.3.2. THE DATABRIDGE SERVICES AND USERS AGREEMENT

The DSUA¹⁴¹ is a multipartite agreement much like the Bolero Rulebook where all participants commit to treat electronic documentation as the functional and legal equivalent of paper documents. The agreement also regulates how users conduct business within the Exchange and outlines the service level and security obligations of ESS as the Exchange operator.

¹³⁹ <http://www.swedishclub.com/main.php?mcid=1&mid=106&pid=19&newsid=799>

¹⁴⁰ Information on the company and its offerings is available on its corporate website, www.essdocs.com. In addition to this, the text below is based on an interview and the following e-mail correspondence with Marina Comminos, General Counsel.

¹⁴¹ The DSUA is not publicly accessible, instead this section builds on a presentation to the author by Marina Comminos, General Counsel ESS.

In accordance with the Rome Convention¹⁴², the DSUA offers the possibility for the parties to select between the jurisdiction of the US and UK courts. This creates a two tier system in which the choice of the user decides if disputes involving ESS will be determined in the US or the UK and disputes between users will be subject to the jurisdiction of the English courts, unless all users concerned have elected US jurisdiction. Disputes arising under the underlying contracts (i.e. the electronic bill of lading) will follow the law and jurisdiction provisions of that contract.

According to ESS, over 100 companies have signed the DSUA.

6.3.3. THE ESS-DATABRIDGE EDOCS EXCHANGE

The ESS-Databridge eDocs Exchange is a document exchange available over the internet to the users. From a functional perspective it is in many ways similar to the Bolero Title Registry since it too operates in accordance with the principle of functional equivalence but it differs on one central point; instead of the users designating roles, singularity is here achieved by the system restricting access to control the registry record, i.e. the properties of the electronic bill of lading may only be amended by one party, the controlling party.

The ESS-Databridge is the common platform for several service offerings through which ESS claims that companies may simplify their document flow. The two main offerings are called Energy solutions and Liner solutions:

6.3.3.1. ENERGY SOLUTIONS

Energy Solutions includes the service CargoDocs for Tanker which is aimed at providing the trading parties with a wide variety of electronic documentation services, supposedly covering the whole trade chain. The documents available include the bill of lading, cargo manifest, timesheet, certificate of origin, certificate of quality, certificate of quantity, documents for jet fuel traceability requirements and Safety Data Sheets.

6.3.3.2. LINER SOLUTIONS

Liner Solutions includes the service CargoDocs for Liners which, much like the Energy Solutions offering, is aimed at providing the trading parties with a wide variety of electronic documentation services, supposedly covering the whole trade chain. The parties targeted by ESS for this offering are Liner carriers, NVOCCs¹⁴³, Shippers/Exporters, End receivers/Importers, Banks, Chambers of Commerce and Customs.

¹⁴² See Section 2.2

¹⁴³ NVOCC: Non Vessel Operating Common Carrier, A shipment consolidator or freight forwarder who does not own any vessel, but functions as a carrier by issuing its own bills of lading or air waybills and assuming responsibility for the shipments. Källa: <http://www.businessdictionary.com/definition/non-vessel-operating-common-carrier-NVOCC.html>

Common for both Energy Solutions and Liner Solutions is that CargoDocs offer the customers the possibility to upload the bill of lading data directly from its own system, as long as that system operates along industry standards using common data formats. The advantage of this is that it reduces the risk of data entry errors. There is also the possibility to enter the bill of lading data manually through a web interface. ESS offers electronic recreation of the carrier's bill of lading templates so that it looks the same on a terminal screen as on paper which may serve to ease adaptation to the new media.

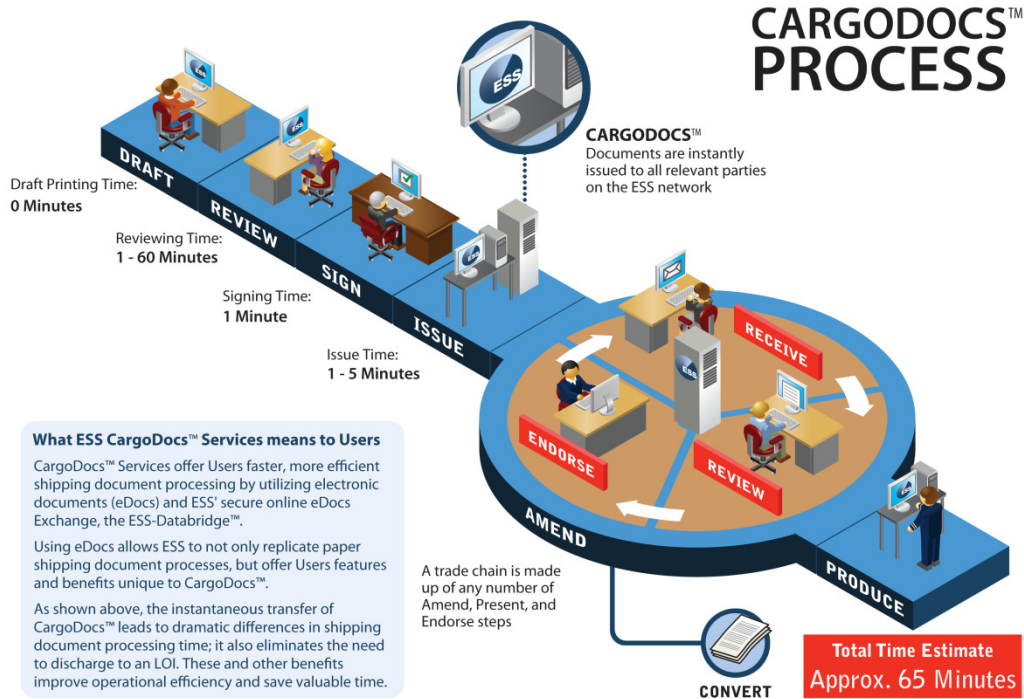
6.3.4. THE CARGODOCS ELECTRONIC BILL OF LADING

The lifespan of a CargoDocs electronic bill of lading to a large extent mimics that of a paper bill of lading since the process designed by ESS aims at replicating the best-practices of members of the DDG. In short, it can be outlined as follows.¹⁴⁴

- The shipper drafts a booking request or similar document that details the specifics of the cargo and the concerned parties and this is sent to the carrier.
- The data instantly becomes available on the carrier's terminal. The carrier then reviews the data and if all is well, signs and issues an electronic bill of lading to the assigned holder, i.e. the consignee without having to retype the information.
- If the cargo is resold and the consignee must be replaced or the electronic bill of lading for some other reason needs to be updated, this is done according to the amend-process where the document is endorsed, received and reviewed in a repetitive pattern as many times as needed. This is the electronic version of a transfer of a paper bill of lading, applying the process of novation as explained above. Each time a party updates the document and sends it on to the next holder, it has to sign the change using an electronic certificate and every entry is recorded in the database for security and audit purposes. At any time, there can only be one holder of the electronic bill of lading.
- At the port of delivery, the consignee signs off after receiving the goods and the carrier may then close the document with a final signature.

The process can be illustrated as follows:

¹⁴⁴ The process is standardised by ESS but may differ from user to user due to what steps of the process they need.



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6.3.5. DSUA, LAW AND JURISDICTION

According to ESS, the DSUA is governed by English law, the only exception is US law governed contracts of carriage, in relation to which transfer of title is governed by the law of the State of New York including the New York Uniform Commercial Code and the United States Uniform Electronic Transactions Act 1999. The reason for this being that the UCC adopts a very simple approach to electronic bill of lading, therefore the process of novation is not necessary when negotiating an electronic document of title under US jurisdiction.¹⁴⁵

In accordance with the Rome Convention cited above, the DSUA offers the possibility for the parties to select between the jurisdiction of the US and UK courts. This creates a two tier system in which the choice of the user decides if disputes involving ESS will be determined in the US or the UK and disputes between users will be subject to the jurisdiction of the English courts, unless all users concerned have elected US jurisdiction.

Disputes arising under the underlying contracts (i.e. the electronic bill of lading) will follow the law and jurisdiction provisions of that contract.

6.3.6. DOCUMENTARY CREDIT

¹⁴⁵ See *UCC* Articles 7-106, 7-501(b)

As mentioned above, CargoDocs is also available for banks which give them the possibility to receive original electronic documents presented under a letter of credit. The bank may then accept or reject the presented documents or forward presented electronic documents to the issuing bank or the buyer as relevant. The CargoDocs process is eUCP compliant and may use the SWIFT network for financial messaging.¹⁴⁶

6.3.7. P&I COVERAGE

As with Bolero, the International P&I Group have established that liabilities arising in respect of the carriage of cargo under the ESS CargoDocs are covered under members' P&I insurance. In circulars published in September 2010, the 13 Clubs in the International Group advised all members that standard P&I risks associated with the carriage of cargo under an electronic bill of lading issued using ESS's CargoDocs Services are within members' standard terms of cover, provided they have signed the ESS-Databridge Services and Users Agreement, version 2009.3.¹⁴⁷

6.3.8. A USERS PERSPECTIVE

During my interview of David Andersson, Broström Tankers, I was given the opportunity to experience the ESS system from a user's perspective. It was explained to me how an oil transport is managed, from beginning to end; starting with the brokers request for offers, the handling at the terminal, the voyage and finally the delivery. It is the loading master that via the terminal agent issues the electronic bill of lading and signs it; subsequent changes are thereafter handled by the concerned parties. At discharge the consignee signs the request for delivery which is confirmed by the master's signature. Signing a document is done the same way that many of us signs when we pay our bills through an Internet Bank, using a small electronic token that produces a code that must be entered in to the system.

The system is considered straight forward and easy to use; the only problems reported has been with Internet connections at certain terminals where low onboard bandwidth has halted the system. In the reported incident, the problem was solved by the master walking over and using the terminals computers instead.

According to Andersson, Broström Tankers was invited to start using CargoDocs by BP who was pioneering the system. Today, also Preem, Morgan Stanley, Petroplus and other corporations are using the system. The oil transport sector is today suffering from having too many competitors; there are too many ships in the Northern European region. Therefore, Broström Tankers sees

¹⁴⁶ For more information, see <http://www.essdocs.com/news/trade-documents-flow-faster-ess-joins-swift-network> (visited 2011-12-20)

¹⁴⁷ <http://www.swedishclub.com/main.php?mcid=1&mid=106&pid=19&newsid=799> (Visited 2011-12-20)

the use of CargoDocs as one way to maintain and develop customer relations. It still has not been put in regular use, Andersson only has records of 15 transports using the system which was installed during the first half of 2010. According to Andersson this is mainly due to lack of knowledge amongst the oil companies. One concern that Broström Tankers has had is that since Broström Tankers is a “pool” of ship owners, each owner must sign the DSUA. Not all owners have been convinced of the advantages of partaking and Andersson believes that they are “afraid of change”. He estimates that today 75 % of their fleet can sign documents electronically.

The interview shows that the system itself functions, although there are some restrictions to its use. For the tanker trade it is necessary that the terminal agent is part of the system and this not yet always the case.¹⁴⁸ It also shows that there is still “traditional inertia” amongst ship owners to transit to electronic transport documents; it is my understanding that this is due to uncertainty regarding the new media and potential security issues related there to.

6.4. SUMMARY OF CHAPTER 6

Although they have never been put to widespread use, the CMI Rules for electronic bills of lading expresses the shipping industry’s view on how the electronic bill of lading may be constructed. Those views have been reflected in subsequent followers, such as Bolero and ESS CargoDocs. Both these systems operate along a central registry-model although they differ on how they establish control of the record. They are also similar in that they are part of wider service offerings, rather than a stand alone solution. Also, they share the common feature that they work but they are not widely used. To me, it is clear that the individual parties to the shipping industry still has not seen sufficient business value in using electronic transport documents to overcome the fear of change alluded to in the interview above. This fear is in part caused by the known difficulties in recreating the document of title-function showed above, and in part by the notion that computer systems are not secure enough. The latter part was dealt with in Chapter 5 but for the next chapter, one question remains, what are legislators doing to establish a legal regime that may serve to overcome the fear of the electronic document of title?

7. ROTTERDAM RULES AND ELECTRONIC BILLS OF LADING

The Rotterdam Rules is the result of the joint work of UNCITRAL and CMI. The Rules aim at replacing the Hague-Visby Rules and the Hamburg Rules; thereby establishing one international set or rules for maritime carriage of goods. The Rotterdam Rules also aims at providing a legal

¹⁴⁸ The ESS Website lists the terminals where the system is currently deployed. <http://www.essdocs.com/rollout> (Visited 2011-12-20)

framework for “door-to-door” transport that includes at least one international maritime leg, a.k.a. multi-modal transport; and, last but not least, to provide rules for the use of electronic means of communication.¹⁴⁹ As far as the Rotterdam Rules pertains to the use of electronic means of communication; it is based on work previously done by UNCITRAL and CMI, such as the CMI Rules on Electronic Document Interchange, the CMI Rules on Electronic Bills of Lading and The UNCITRAL Model laws on electronic commerce and electronic signatures.¹⁵⁰

It can be said that the Rotterdam Rules consists of one “substantive” part that contains the rules of maritime transport, and one “e-commerce” part that contains rules for how to use electronic means of communication for tasks previously assigned to the use of paper; and where the former part dictates the latter.¹⁵¹ It is not the purpose of this thesis to comment on the substantive part of the convention, instead the focus is the functionality assigned to electronic documents compared to that of paper documents.

The starting point for UNCITRAL’s work on electronic transport documents can be found during the discussions on future work in the area of electronic commerce, following the adoption of the UNCITRAL Model Law on Electronic Commerce at UNCITRAL’s twenty-ninth session, in 1996. UNCITRAL had learned that:

“existing national laws and international conventions left significant gaps regarding issues such as the functioning of bills of lading and seaway bills, the relation of those transport documents to the rights and obligations between the seller and the buyer of the goods and the legal position of the entities that provided financing to a party to the contract of carriage. Some States had provisions on those issues, but the fact that those provisions were disparate and that many States lacked them constituted an obstacle to the free flow of goods and increased the cost of transactions. The growing use of electronic means of communication in the carriage of goods further aggravated the consequences of those fragmentary and disparate laws and also created the need for uniform provisions addressing the issues particular to the use of new technologies”¹⁵²

The current juridical stand point on electronic documents instead of paper documents is that when an electronic version is being employed using a central registry-system, no document as such is being issued and that the desired legal function of that electronic version must be secured through contractual means rather than by legal qualities assigned to the document by its nature. This solution has been perceived as cumbersome and deterring since it necessitates

¹⁴⁹ Alba, M.(2009) *Electronic Commerce Provisions in the UNCITRAL Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea*, , 44 Tex. Int'l L. J. 387 2009, p. 388

¹⁵⁰ Clark, D.M. *Electronic documents and the Rotterdam Rules* published in Thomas, R. (Ed.) (2010). *The carriage of goods by sea under the Rotterdam rules* . London: Lloyd's List

¹⁵¹ Alba, M.(2009) *Electronic Commerce Provisions in the UNCITRAL Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea*, , 44 Tex. Int'l L. J. 387 2009, p. 394

¹⁵² UNCITRAL, (2000) *A/CN.9/476 Transport law – possible future work*, p. 2

prospective parties to sign a multi-user agreement, the effect being that “obstacles to the free flow of goods” still exists. The proposed solution has been to draft a convention that; firstly “purports to apply to all contracts of carriage, including those concluded electronically”; and secondly “the draft instrument is medium neutral as well as technology neutral. This means that it can be adapted to all types of systems, not only those based on a registry”¹⁵³

The convention achieves functional equivalence and technology neutrality by:

- 1 Including in its definitions-section near identical definitions for paper and electronic documents
- 2 Including in its definitions-section a definition of “issuance” of electronic records as “the issuance of the record in accordance with procedures that ensure that the record is subject to exclusive control from its creation until it ceases to have any effect or validity”, hereby establishing adherence the principle of singularity, as described above.
- 3 Including in its definitions-section a definition of “holder” of a negotiable electronic transport record, who has the right to control the record according to the process set out in Art. 9. Paragraph 1, which also serves to establish the principle of singularity.
- 4 Stating in Article 3 that all forms of notices and acknowledgements that need to be sent according to the Rotterdam Rules may also be sent using electronic communication, provided that the parties have agreed on this.
- 5 Stating in Article 8 that anything that is to be in or on a transport document may be recorded in an electronic transport record provided that both carrier and shipper consents; and that the issuance , exclusive control, or transfer of an electronic transport record has the same effect as the issuance, possession, or transfer of a transport document.
- 6 Stating in Article 9 that the use of a negotiable electronic transport record shall be subject to procedures that provide for the method for the issuance and the transfer of that record to an intended holder. It must also be subject to procedures for assurance that the negotiable electronic transport record retains its integrity; the manner in which the holder is able to demonstrate that it is the holder; and the manner of providing confirmation that delivery to the holder has been effected. It is also mandated that the procedures shall be referred to in the contract particulars and be readily ascertainable.

¹⁵³ UNCITRAL (2002) *A/CN.9/WG.III/WP.21* p. 8

Articles 35 and 36 concern the more substantive part of the convention, and it is here the fundamental characters of the transport document are defined, similar to Article 3 of the Hague-Visby Rules. Also here the functional equivalence approach is applied, since the text of the articles includes both “transport document” and “electronic transport records”; for example as in Article 36:

“The contract particulars in **the transport document or electronic transport record** referred to in article 35 shall include...” (emphasis added)

Article 38 mandates the carrier to sign the transport document, or in the case an electronic transport record is used, to include an electronic signature. In difference from when a transport document is signed, it has been added that the electronic signature of the electronic transport record “shall identify the signatory in relation to the electronic transport record and indicate the carrier’s authorization of the electronic transport record”, which serves to further establish the functional equivalence of the electronic signature.

Similar use of language as in Article 36 can be found in Article 40 where it is established that also an electronic transport record is prima facie evidence of the carrier’s receipt of the goods. This method is repeated in several of the following articles, all serving to establish functional equivalence.

The result is a convention that in spite of alleged shortcomings in its substantive parts,¹⁵⁴ delivers the necessary legal conditions for electronic transport records to function as equivalents of traditional paper documents. It remains to see if and when this convention will come into force.

8. CONCLUSIONS

8.1. HOW ARE ELECTRONIC BILLS OF LADING USED AND PERCEIVED TODAY?

The shipping industry has been slow to support the electronic bill of lading. Traditional inertia and fear of change has been blamed. This may be about to change, as I have shown that representatives of the market today claim that they are open to use of electronic alternatives to the paper bill of lading although they perceive current offerings as complex and expensive. It is my opinion that this view on openness is corroborated by the current trend in the market place

¹⁵⁴ For an example, see: Alcántara, J. M, (2010) *Particular concerns with regard to the Rotterdam Rules* Available at: <http://libunov-cat.unog.ch/vwebv/holdingsInfo?searchId=8&recCount=10&recPointer=2&bibId=37243> (Visited 2011-12-20)

to implement single-window systems for the management of all trade related documents and processes and that in the shipping industry today there is a greater acceptance of and knowledge about the advantages offered by information and communication technology.

In the sections on Bolero and ESS it was established that there are functioning alternatives that offer user friendly interfaces and high levels of interoperability and security, although they are still a marginal phenomena. It was also made clear that the current offerings differ radically from those of the nineties, in that they today include service offerings regarding for example letters of credit or cargo manifests. It has also been noted that the move towards electronic document management is promoted by international organisations such as CMI and ICC as well as UN-organs such as UNCTAD, UNCITRAL and UNECE.

In sum, considering the development of world trade, the evolution within information and communication technologies and the adaption of such technology by the shipping world, it is clear that the systems, the knowledge and the data needed for issuance and presentation of the bill of lading already exists or will be implemented within shortly, creating an electronic environment that will allow the electronic equivalent of bills of lading to flow in a fast and secure way between the concerned parties. It remains to see if this development will be supported by the legislative community.

8.2. ARE THERE ANY LEGAL OBSTACLES TO THE WIDESPREAD USE OF ELECTRONIC BILLS OF LADING?

My investigation of the law as it exists today in Sweden and certain other countries shows that it today is possible to operate an electronic bill of lading-system that uses a central registry that applies the principle of singularity. However, it is not clear whether an electronic bill of lading is a document of title by Swedish law which might cause difficulties when ascertaining the rights to control of goods. A similar issue is found in Common law systems; the parties to a transport contract that wishes to use electronic means of communication to document that contract and subsequently transfer rights under that contract, today must make use of the novation and attornment method. This defect contributes to the experience of the electronic bill of lading as difficult and legally insecure.

My investigation of the law as it exists today have shown that paper documents are considered to have a high evidentiary value, but also that they may be forged and can be used for misrepresentation. By the same standards, electronic documents are considered to offer equal or higher document security. I have also shown that it is unclear what legal status is awarded the electronic document from a document security perspective. It is my view that if the electronic

document was offered better protection by the law against fraud and forgery, it would be regarded as a more secure alternative.

8.3. WHAT LEGISLATIVE OPTIONS ARE AVAILABLE TO EASE THE TRANSITION TO ELECTRONIC BILLS OF LADING?

In the section above on the Rotterdam Rules it was established that the international shipping community has been working on improving the current legislative situation regarding electronic transport documents for many years, and that there now exists a credible solution. By establishing the functional equivalence-approach and processes that safeguard the singularity principle, the electronic transport record will safely represent the goods during a documentary sale. However, it is not known if or when this convention will come into force.

While waiting for the coming into force of the Rotterdam Rules, it would, as shown above, be possible to implement updates to national legislation to achieve the same effect. It is my opinion that if the legislators were to shred the doubts regarding the electronic document of title, either by ratifying the Rotterdam Rules or updating national laws, it is probable that the parties of the trade industry would regard the electronic bill of lading with greater trust. This would serve to overcome the “traditional inertia” that has characterised the industry for so long, and ease the transition in to modern document management systems that will serve to eradicate the problems caused by the paper bill of lading.

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Uppsatsen är skriven av Magnus Ivarsson, 711214-4618, som registerades på kursen HR0800, Examensarbetet, första gången höstterminen 2011, kursstart 31/8.

Magnus Ivarsson har deltagit i följande examinationstillfällen:

2012-01-10, opponert mot Katalin Leber

2012-01-10, respondent mot Elias Himsel