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The Future of Electronic Commerce
in International Sea Carriage
through Exercise of Right of Control
– A Critical Analysis from Chinese
Law Perspective

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Summary

The Rotterdam Rules, which is a new convention dealing with carriage of goods by sea, is open for signature. There are a number of improvements in the new rules compared to its predecessors, but the most outstanding amongst them are the concepts of right of control and recognition of electronic transport record. At the same time, electronic commerce is developing at an amazing speed which requires more legal and technical support. The significance of enacting of Rotterdam Rules is undoubtedly relevant to modern commerce.

This thesis will be centred on the Rotterdam Rules to examine right of control and electronic transport document, in order to explore the practical meaning of them in electronic commerce.

The Chinese law perspective is explored to find out the viability of using the legal framework of the Rotterdam Rules in facilitating international trade concerning electronic commerce. The author suggests possible improvements that need to be effective under Chinese laws for incorporating the construct of the Rules in facilitating e-commerce in the event of the Rules being applied in China in the future.¹

¹ This thesis will not discuss any possibility for China to be a party to The Rotterdam Rules

Preface

Bills of lading, as the most important transport document, have been used more than six centuries. It is a problem that if they still suitable for modern electronic commerce, especially they are usually issued in the traditional way – paper format, and the feature of document of title of it has stucked into people’s mind. Thus, it should be an interesting topic if this time-honoured document can be performed in a new mean – electronic record and if it still can work effectively without function of document of title, which has been deemed as the symbol of bills of lading, in modern transactions. Also as a Chinese, to combine this topic with Chinese laws and practices in order to offer suggestions is my interest as well as ambition.

I would like to thank my parents first. They support me a lot to live and study here. This thesis is for them. I am also grateful for having such a great supervisor, Abhinayan Basu Bal. He gave me plenty of suggestions and encouragements during the whole thesis writing. Without his assistance and supervisions, I could not accomplish it. While, I need to thank my friends, especially who are not here with me. Owing to all your near and distance regards and supports, I feel warm and love when I am lonely and helpless.

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Abbreviations

The Hague Rules	International Convention for the Unification of Certain Rules of Law relating to Bills of Lading 1924
The Hague-Visby Rules	Rules Protocol to Amend the International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading 1968, 1979
The Hamburg Rules	United Nations International Convention on the Carriage of Goods by Sea 1978
The Rotterdam Rules	United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea
CISG	United Nations Convention on Contracts for International Sale of Goods 1980
COGSA	Carriage of Goods by Sea Act 1992
SGA	Sale of Goods Act 1979

1. Introduction

During the recent four and five decades, one of the most significant improvements in this world is dematerialization, particularly the development and usage of the Internet. Nowadays, in some countries, people can access the Internet in cafés, shopping malls or even on the streets. And the functions of the Internet that people can utilize are also becoming more and more comprehensive. Sending emails and reading news cannot meet the demands of modern people any more, but purchasing the new style commodities or managing their personal e-bank accounts has been an important role that the Internet is playing in our everyday lives.

In the international trading field, this tendency cannot be underestimated either. In order to complete a cross boundary transaction, up to fifty different parties may get involved.² It is neither possible nor necessary for all the parties to contact each other through paper-based documents, e.g. letters. Doing business also needs speed. Posting a paper document is much slower than sending an email, which can be delivered immediately. Thus, nowadays almost every business company has its own webpage on the Internet where the relevant parties are able to search any sort of information that they may be interested in. The negotiation process can also be held online, for example via email or telecom. Even contracts can be concluded through the Internet and saved as the electronic formats and the legal effect of electronic contract has been given in many jurisdictions. Thus, electronic commerce is a new and effective way to do transactions and business at the present times.

Moreover, there are other sorts of documents and relationships are involved in one international transaction other than sale contract and relevant relationship, such as contract of carriage, transport documents, insurances, letters of credit and so on. Some of them are not dematerialized so far due to

² Marek Dubovec, "The Problems and Possibilities for Using Electronic Bills of Lading as Collateral", (2006), *Arizona Journal of International & Comparative Law*, Vol.23, No.2 at p.438. *Supra* footnote 3.

either practical or legal reason or both. However, this paperless tendency cannot be avoided in these fields, otherwise they would slow down the step of the entire electronic commerce. Thus, the best way is from a legal and practical perspective to solve the problems. The international society shall take action first in order to offer a correct directive for each jurisdiction.

1.1 Purpose of the Thesis

This thesis will examine and analyse two main issues; right of control and legal recognition of electronic equivalent of transport document adopted in United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, otherwise referred to as the Rotterdam Rules, through which some suggestions will be given to the Chinese legal system concerning electronic commerce.

Thus, several questions will be answered in this thesis. First, what are the functions and features of bills of lading? Is there any possibility for bills of lading to have electronic forms? What are problems in this duplicating procedure? Second, what is the electronic transport record in the Rotterdam Rules? What are the nature and characters of it? What is the right of control in the Rotterdam Rules? What is the relationship between the right of control and the electronic transport records? Third, is there any other concept similar to the right of control? What are the common points and conflicts among them? Fourth, why do registry systems exist? Can they work within the regime of the Rotterdam Rules? Is there other alternative to the registry system? How does it work? Fifth, is there any possibility for China to adopt right of control and usage of electronic transport record? What do Chinese laws have for these two new ideas? What do Chinese laws need for the future? This thesis intends to answer all of these questions clearly and finally gain the effective suggestions for developing Chinese laws.

1.2 Methodology

As mentioned above, the ultimate task of this thesis is to give some useful suggestions to Chinese legislation for the adoption the new regime in the Rotterdam Rules. First, this thesis will introduce the basic information and history of bills of lading, which will base on examining English laws and existing conventions. In the part of electronic commerce, the current practices will be gone through and method of comparison and criticism will be used in order to examine the advantages and disadvantages of them. In Chinese part, analysis and criticism will be the main methods to be used in order to examine the current Chinese legislation and to offer the advices.

In this thesis, the main sources that will be used are laws and regulations, both from international and national levels. From the international legal perspective, several conventions will be examined, including CISG, the Hamburg Rules, the Hague Rules, the Hague-Visby Rules and the most important one, the Rotterdam Rules. From the domestic law perspective, English laws and Chinese laws will be involved. In English laws, COGSA and SGA will be the main regulations. In Chinese laws, Maritime Code 1992 and Contract Act 1999 are the primary rules. Besides these two, Property Law 2007, Mortgage Law 1995, Electronic Signature Law 2005 and some other laws will also be mentioned and analyzed. In additional, some representative English cases will be introduced as well in order to clarify the relevant concepts.

1.3 Scheme of the Thesis

To begin with, this thesis will introduce bills of lading and existing conventions that deal with them in Chapter 2: ‘Bills of Lading and The Existing Conventions’. In this chapter, the history of the bill of lading, three functions of it and the main features of the existing conventions will be introduced.

Second, the new convention, the Rotterdam Rules, will be presented in Chapter 3: 'The Electronic Commerce under The Rotterdam Rules'. There are two main issues that will be examined in this chapter, namely the right of control and usage of electronic transport record. The characters of each of them will be reviewed and the relationship between the right of control and the electronic record will be examined in this chapter.

After it follows Chapter 4: 'Registry Systems and Notification Systems'. This chapter aims to analyze the current practice and attempts that the business industry has made for electronic commerce. Based on the analysis, it is also attempted to give suggestions to adopt notification system to replace the register system. Some technical issues and terms will be mentioned in it.

Chapter 5 is named 'Right of control and Other Similar Concepts'. From the name it can be seen that this chapter will examine similar concepts to the right of control, including stoppage in transit and suspension of performance, and the underlying laws are English laws and CISG.

Chapter 6, the most important part of this thesis, is 'The Possibility of Introducing The Concept of Right of Control and Electronic Commerce in Chinese Legislations'. The former part of this chapter is to investigate if Chinese legal system has some similar rules on right of control and electronic commerce as preparations for the new regime. The latter part will be suggestions for future of Chinese legal system based on the previous analysis and criticism.

2. Bills of Lading and The Existing Conventions

Bills of lading, as the most important transport documents, are widely used in international commerce with the traditional format – paper document, on one hand. On the other, the new trend in commerce nowadays is dematerialization, which may speed up the entire procedure of transaction. In fact, the slow speed on the transfer and the delay arrival of bills of lading from the shipper in lading port to the final buyer in the discharging port has been subject to much criticism.³ The attempts on duplicating bills of lading into electronic alternatives in order to approach the main stream in electronic commerce have started for more than two decades.⁴ Nevertheless, the progress of replication of bills of lading into electronic bills of lading has not been going well due to various reasons, including the functions of bills of lading, the nonrecognition of electronic form by international or national laws, the defects of technology and so on.⁵ However, it can be submitted that the dematerialization in the entire commerce field requires transport documents to catch up the pace, where using the electronic format of transport documents is the tide that cannot be reversed.

This chapter will examine the functions and features of bills of lading alongside the existing international conventions (also including the Rotterdam Rules) that relate to bills of lading and the contract of carriage, from which to expound whether or not bills of lading can have the electronic equivalent with full functions. If it is impossible to replicate the whole three functions, what are problems and obstacles?

³ Georgios I. Zekos, “Electronic Bills of Lading and Negotiability”, (2001), *The Journal of World Intellectual Property*, Vol. 4, Issue 6, at 977.

⁴ The first system for administering an electronic bill of lading was SEADOCS, which was set up in mid of 1980s. See Marek Dubovec, *supra* footnote 2, at 449. However, this system merely worked for depositing the original bills of lading. In other words, this system was not “electronic” in strict sense. See Emmanuel T. Laryea, “Paperless Shipping Documents: An Australian Perspective”, (2000), *Tulane Maritime Law Journal* Vol. 25 at 279.

⁵ Marek Dubovec, *supra* footnote 2, at 438.

2.1 Functions and Features of Bills of Lading

2.1.1 The Functions of Bills of Lading

Bills of lading, as the most important negotiable transport documents, have been being used for more than 600 years.⁶ They mainly perform three functions, the receipt of shipment, the evidence of the contract of carriage and the document of title. Receipt of shipment is the first function the bill of lading performed and the people used.⁷ The transferability of bill of lading arose in the sixteenth century evidenced by the provisions on it: “delivery to the shipper (or his agent) or their assigns” or “delivery to a third person or his assigns”, which followed the change in the trading practice.⁸ The function of the evidence of contract had not arisen until the sixteenth century as well.⁹ As to the function of document of title, it was set clearly in *Barber v. Meyerstein*¹⁰, where it was held that ‘... In the case of goods which are at sea being transmitted from one country to another, you cannot deliver actual possession of them, therefore the bill of lading is considered to be a symbol of the goods, and its delivery to be a delivery of them.’ Thus, till the late nineteenth century, all the three functions of bill of lading had been developed.

The former two functions are relatively simple to understand. They mainly consist of the information on goods and people who are parties to the contract of carriage that the bill of lading covers.¹¹ First, as the receipt of shipment, the bill of lading is probably issued after the goods shipped on board in order to prove that the carrier has discharged his prime duty of taking the goods from the consignor who may have the relevant duty due to

⁶ See Richard Aikens, Richard Lord and Michael Bools, *Bills of Lading*, London: Informa, 2006, Chapter 1. The original practice for recording cargos was registering the cargo in the ship’s book that could be traced back to around 1300s. It is safe to say that the bill of lading was unknown in eleventh century. In the late fourteenth century, the rudiment of the bill of lading began to exist but only performed function as the receipt of the goods shipped.

⁷ *Ibid.*

⁸ *Ibid.*

⁹ *Ibid.*

¹⁰ [1870] Lloyd’s Rep. 4 317 (H.L.).

¹¹ Marek Dubovec, *supra* footnote 2, at p.448.

other contracts. For example, the seller is required to deliver the goods to the carrier in order to perform his contractual duty under the contract of sale.¹² According to Article 3.3 (a) to (c) of the Hague Rules and the Hague-Visby Rules, bills of lading should record the leading marks, number of packages or pieces or quantities and also the apparent condition of the goods.

Second, bills of lading can also perform the evidence of contract of carriage, because “in the vast majority of the cases”¹³ the bill of lading is made after the conclusion of the contract of carriage.¹⁴ However, it only provides *prima facie* evidence between the carrier and the shipper, who are the original parties to the contract, except that they enter into a charterparty.¹⁵ In other words, the original contract of carriage will prevail if it is contradicted by the wordings in bill of lading.¹⁶ However, if the bill of lading is transferable and has been transferred to a third party in good faith, it becomes the conclusive evidence of the contract of carriage between the carrier and the transferee¹⁷ and any proof to the contrary to the wording of bill of lading shall not be admissible.¹⁸ Thus, this function is also indicated as bills of lading evidenced or *contained* the contract of carriage.¹⁹ As a result, the transferee acquires the contractual rights against the carrier but at the same time, he also is liable to the carrier under the bill of lading contract.²⁰ Thus, the transferor quits from the contract of carriage automatically and the

¹² In an f.o.b. contract, most of the time the seller is considered as the consignor and takes the duty of delivery of goods to the carrier stipulating the sale contract and the buyer is the shipper who is the party to the contract of carriage with the carrier.

¹³ Guenter Treitel and F.M.B. Reynolds, *Carver on Bill of Lading*, 3rd Edition, London: Sweet & Maxwell, 2011 at 3-001, footnote 3.

¹⁴ *Ibid.*

¹⁵ Protocol to Amend the International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading, 1968, 1412 U.N.T.S (the Hague-Visby Rules), a.3.4 and United Nations Convention on the Carriage of Goods by Sea, 1978, A/CN.9/306, (the Hamburg Rules), a.16.3 (a)(b). In the charterparty, the freedom of contract is fully applied. The bill of lading is just used as the receipt of shipment and document of title. However, once the bill of lading transferred to a third party, it became the conclusive evidence between the carrier and the transferee.

¹⁶ The leading case is *The Ardennes* ([1921] 3 K.B. 473 at 476) where the antecedent contract provided that the ship would go to destination port directly from the shipping port and the carrier was held that he could not rely on “a liberty to deviate” clause in the bill of lading against the shipper.

¹⁷ Guenter Treitel and F.M.B. Reynolds, *supra* footnote 13, at 3-007.

¹⁸ Hague-Visby Rules a. 3.4 and Hamburg Rules, a. 16.3 (a)(b).

¹⁹ Guenter Treitel and F.M.B. Reynolds, *supra* footnote 13, at 3-001.

²⁰ *Ibid.*, at 3-007 and 3-008.

transferee joins in bill of lading contract via the transfer. This is an exemption to the doctrine of privity of the contract.²¹ The original parties to the contract of carriage are the carrier and the shipper but any other new transferee could be a part of it subsequently. The transfer of the bill of lading may entitle the transferee to acquire contractual rights or be subjected to contractual liabilities.²²

The third function, as the document of title, of bills of lading needs to attract more attention. There is a definition of “document of title” in the Factors Act 1889,²³ which is incorporated in section 61(1) of the Sale of Goods Act 1979. ‘It follows two parts, one part lists a number of documents: “any bill of lading, dock warrant, warehousekeeper’s certificate and warrant or order for the delivery of goods”’.²⁴ The second part provides that ‘any other document used in the ordinary course of business as proof of the possession or control of goods...’²⁵ Thus, the document of title means that, in short, the possession of document amounts to the possession of the goods represented by the document.²⁶ There is also a vivid expression, manifesting that ‘the bill of lading should be regarded as a “cheque for goods”’.²⁷ The person who has the document of title is considered as possessing the goods themselves. The lawful holder of the bill of lading can resell or pledge the goods through transactions or pledges of the bill of lading. However, the possession of the goods is not equivalent to having the title on goods. The time of transfer of the ownership of goods is stipulated in the contract of sale, which is a solely freedom-of-contract issue.²⁸ It is possible that the

²¹ *Ibid*, at 4-002.

²² *Ibid*, at 5-008.

²³ Factor Act 1889, 52&53 Vict., Ch.4, se.1(4).

²⁴ Guenter Treitel and F.M.B. Reynolds, *supra* footnote 13, at 6-003.

²⁵ Factor Act 1889, 52&53 Vict., Ch.4, se.1(4).

²⁶ Guenter Treitel and F.M.B. Reynolds, *supra* footnote 13, at 6-001. There is an expression indicating that a document relating to goods the transfer of which operates as a transfer of the constructive possession of the goods.

²⁷ Richardson J., *The Merchants Guide: Millenium Edition*, London: P&O Nedlloyd, 1999 at p.53.

²⁸ There are no uniform rules on this issue and even no attempts. But some of the time it really caused conflicts between the possession of the goods and entitlement on the goods. See Miriam Goldby, “Electronic bills of lading and central registries: who is holding back progress?”, (2008 June), *Information & Communications Technology Law* Vol.17, No. 2 at p. 129.

property of goods retained by the seller as a security for the payment after the issuance of the bill of lading. Thus, transfer of title is not an issue governed by the contract of carriage or transport law but by the contract of sale, which is mainly dependent upon the agreement between the seller and the buyer.

Nevertheless, the differences between holding the document of title and physical possession of the goods still exist, especially when the goods are in transit and physically possessed by the carrier. Holding a document of title enables the lawful holder to be treated as constructively possessing the goods and also allows him to resell the goods in transit without possessing them physically. The question here is whether or not the lawful holder of document of title taking the delivery of goods from the seller is based on document of title. The answer should be negative. The simple example that can be used here is sea waybills. The consignee or say the receiver recognized in the sea waybill, which is not considered having the function of document of title, is also entitled to obtain the delivery of goods.²⁹ In other words, if taking the delivery of goods was rooted in document of title function, the consignee named in the sea waybill could not obtain the goods.

The obligation of the carrier to deliver the goods under the contract of carriage “is tied to the possession and presentation of the bill of lading”³⁰. The carrier will discharge his delivery obligation if there is a holder of bill of lading in the discharging port presenting the document in order to receive the goods. Thus, whether or not he can eventually take the possession of the goods still lies on the performance of carrier. If the carrier fails to deliver the goods, the holder has right to sue him breaking of contract according to bill of lading contract.³¹

As to the significance of presentation of bill of lading here, is to prove that the holder is the lawful receiver of the goods but not to evidence his

²⁹ Marek Dubovec, *supra* footnote 2, at p.445.

³⁰ *Ibid*, at p.442.

³¹ Guenter Treitel and F.M.B. Reynolds, *supra* footnote 13, at 4-005.

constructive possession of the goods. Similarly, in sea waybills or other transport documents without function of document of title, the entitled person is also required to demonstrate himself but the way is different. The entitled person or say the named person in such a transport document, for example, has to show his ID card to the carrier in order to justify his identification.

Due to the feature of document of title, *possession of document amounts to possession of the goods represented by the document*,³² it cannot be said that taking the physical possession of goods is due to or based on the constructive possession. From the constructive possession of goods to the physical possession of the holder of bill of lading is, on one hand, dependent upon the carrier's contractual obligation – delivering the goods. On the other hand, the holder of bill of lading is entitled, or should be entitled, to obtain the delivery of the goods from the carrier according to the contractual right rather than the proprietary right.

The core of a document of title is to give *holder* as sufficient and exclusive control over the goods as a person with the actual custody of the goods.³³ It also suggests that there should be only one person entitled to exercise the control over the good at any given time, namely the holder of bill of lading. This is just the main problem that the electronic form of bill of lading is facing and needs to be solved properly: how to guarantee the singularity, which will be discussed later.

Moreover, bills of lading are also playing an important role in the payment link because banks use it as collateral.³⁴ Bank, as a financial supporter in the international transaction, deserves a place to examine here. Bank is always linked to the payment and the leading mean of payment is letter of credit,

³² *Supra* footnote 25.

³³ Richard Aikens, Richard Lord and Michael Bools, *supra* footnote 6, at 6.6.

³⁴ Marek Dubovec, *supra* footnote 2, at p.443.

where the bank will play a starring role.³⁵ The buyer will go to his local bank to open a letter of credit and the paying bank, which could be the opening bank or other banks, will pay the purchase price on presentation of the bill of lading that is fully consistent with the instruction given by the buyer.³⁶ As an advance payer or say, a creditor of the buyer, the bank that offers the letter of credit against the transport document needs the bill of lading as the security according to the function of “document of title”.³⁷ Only this function can entitle the bank to control over the goods, which can be transformed into money. So if the buyer defaults in paying the money back or fails to redeem the bill of lading, the bank can resell the goods in transit by transferring the bill of lading to a sub-buyer in order to collect the payment.

Moreover, the bank will require the full set of bills of lading if they are issued in more than one set in order to protect their interest.³⁸ In this case, it is indicated that the bank does not really care about whether it has become a party to the contract of carriage contained in the bill of lading or to take the delivery of goods represented on it in the terminal port (the two former functions), but only concerns the collateral value of the bill of lading according to its document of title feature.³⁹ In this case, bank is always considered as a pledgee of the goods as well as the bill of lading and gains a “special proprietary” interest consequently.⁴⁰ Thus, the bill of lading is significant to banks or other creditors.

³⁵ Carole Murray, David Holloway and Daren Timson-Hunt, *Export Trade: The Law and Practice of International Trade*, 11st Edition, London: Sweet & Maxwell, 2007, at p.184.

³⁶ *Ibid*, at p.185 – p.188.

³⁷ Marek Dubovec, *supra* footnote 2, at p.443.

³⁸ *Ibid*. Also see Uniform Customs and Practice for Documentary Credits, I.C.C. No. 500 (UCP500), a. 23(a)(iv).

³⁹ *Ibid*, at p.444.

⁴⁰ Richard Aikens, Richard Lord and Michael Bools, *supra* footnote 6, footnote 82 at 6.36.

2.1.2 The Features of Bills of Lading

There are three features relating to the bill of lading need to be clarified. The first one is “transferability” or “negotiability”.⁴¹ In commerce sense or not in the strict sense, these two words are equal to each other.⁴² This feature of bills of lading was set in *Lickbarrow v. Mason*.⁴³ It means that the bill of lading, as a type of transport document, is transferable from one party to another. The rights embodied in it, including contractual ones and the proprietary ones, are also transferrable and can be transferred from the transferor to the transferee.⁴⁴ The ways of transferring depend on the type of bill of lading.⁴⁵

Another concept is “document of title”, to which is always referred together with the “transferability”. Although there is no authoritative definition of “document of title” in English Law except the describing one mentioned above,⁴⁶ it could be interpreted as that “a document relating to goods the transfer of which operates as a transfer of the constructive possession of the goods”.⁴⁷ The “transferability” lies in the heart of the document of title, and any document that is marked with “not transferable” or “not negotiable” cannot be considered as the document of title.⁴⁸ Thus, if it can be concluded as a document of title, the document should be able to be transferrable.⁴⁹ However, the question is whether all the transferable transport documents

⁴¹ It is viewed that the meanings of “negotiable” and “transferable” are not exactly the same. In the legal sense, bills of exchange are negotiable instruments but bills of lading do not have the same characters as bills of exchange, such as the transferee of bill of lading cannot take better title than the transferor. Thus, the bill of lading “is not a truly negotiable instrument in the full legal sense.” See Guenter Treitel and F.M.B. Reynolds, *supra* footnote 13, at 6-038.

⁴² *Ibid*, footnote 28 at 6-038. [1971] 1 Lloyd’s Rep 439. In scope of this thesis, there is no difference between these two words.

⁴³ (1793) 2 H.B.1.211.

⁴⁴ Guenter Treitel and F.M.B. Reynolds, *supra* footnote 13, at 6-002.

⁴⁵ *Ibid*, at 6-040. The transfer can be effective by the endorsement together with the delivery of the document in the order bill of lading or only by delivery of the documents in the bearer bill of lading.

⁴⁶ *Supra* footnote 23.

⁴⁷ Guenter Treitel and F.M.B. Reynolds, *supra* footnote 13, at 6-002.

⁴⁸ *Ibid*, at 6-002.

⁴⁹ *Ibid*.

must be defined as document of title in the law or not is another question, which will be discussed later.

The third concept is the exclusive control over the goods,⁵⁰ which is different from the right of control defined in the Rotterdam Rules. As discussed above, the core implication of the document of title is the exclusive control over the goods, which amounts to the possession of the goods.⁵¹ Thus, the exclusive control over the goods refers to the proprietary right relating to the function of document of title. It contains two factors. Firstly, the word “exclusive” means that no one, except the holder of the document of title, has the right on the goods. Second, “control over the goods” indicates that such a right should approach the goods directly but without asking any permission or any reaction of any party. In the case of which the transport document is not transferable, such as sea waybills that are not considered as the document of title, the *named person* on it is only entitled to claim for the delivery of goods from the carrier rather than reselling the goods on transit. The differences between the two actions are that the former one relies on the carrier’s delivery, but the latter one is purely in the liberty of the holder. From this point, it can also be seen that to obtain the delivery is not the way to exercise the exclusive control over the goods.

In sum, the main feature of bill of lading is the function of document of title. In order to be qualified as document of title, transferability is necessary. As to the exclusive control over the goods, it is deemed as the key point of the document of title.⁵² Thus, the logical relation among these three features is like this: transferability qualifies the function of document of title and document of title implies the exclusive control over the goods.

⁵⁰ *Supra* footnote 33.

⁵¹ Sale of Goods Act 1979, Chapter 54, a.61 (1).

⁵² Richard Aikens, Richard Lord and Michael Bools, *supra* footnote 6, at 6.6.

2.2 Existing International Conventions Dealing With Bills of Lading

There are three international conventions dealing with the contract of goods by sea before the Rotterdam Rules,⁵³ they are the Hague Rules, the Hague-Visby Rules and the Hamburg Rules.⁵⁴ Several common characters of three conventions are worth being mentioned here.

First, they only govern the carriage of goods wholly by sea or water.⁵⁵ In other words, they do not apply on the carriage of goods by rail or by air or partly by sea.⁵⁶ Second, they merely apply for the contract of carriage covered by transport documents.⁵⁷ Thus, the contact of carriage without any transport documents cannot be governed. Third, there is no explicit provision concerning the electronic transport documents. In the Hague Rules and the Hague-Visby Rules, there is no even definition of the transport document and in which format they should be made. The only clear sort of transport document is bill of lading.⁵⁸ Due to the time when the convention was drafted and amended is 1924 and 1978, the transport document was supposed to be recorded on paper. Regarding to the Hamburg Rules, a little progress was made in Article 13 paragraph 3, which regulates that '[t]he signature on the bill of lading may be in handwriting, ... or made by *an other mechanical or electronic means* if not inconsistent with the law of the country where the bill of lading is issued.' (Emphasis added) It offers

⁵³ UNCITRAL's draft Convention on the Carriage of Goods wholly or partly by sea. The version of the draft convention referred to in this paper is that of Feb 2009, which is available on http://www.uncitral.org/pdf/english/texts/transport/rotterdam_rules/09-85608_Ebook.pdf.

⁵⁴ The international Convention for the Unification of Certain Rules of Law relating to Bills of Lading (the Hague Rules) and the Hague Rules as Amended by the Brussels Protocol 1968 (the Hague-Visby Rules). The UN Convention on the Carriage of Goods by Sea 1978 (the Hamburg Rules). More than 50 countries ratified the Hague Rules or the Hague-Visby Rules, including United Kingdom, United States, Sweden and so on. Till May 2011, up to 34 countries have ratified the Hamburg Rules.

⁵⁵ The Hague Rules and the Hague-Visby Rules, a. 1(b) and the Hamburg Rules a.1.1 and a. 1.6.

⁵⁶ This character is different from the Rotterdam Rules, which aim to govern the carriage of goods wholly or partly by sea.

⁵⁷ The Hague Rules and the Hague-Visby Rules, a. 1(b) and the Hamburg Rules, a. 2.1(d)(e).

⁵⁸ The Hague Rules and the Hague-Visby Rules, a. 1(b) and the Hamburg Rules, a.1.7.

a legal possibility for using the electronic signature. Unfortunately, this is the only provision relating to the electronic measure but merely about the format of signature rather than that of bills of lading. Moreover, in aspect of applicable law, the convention actually left this issue to the domestic law to determine whether the electronic signature is valid or not.⁵⁹ Fourth, there is no provision stipulating contractual rights of either the carrier or the shipper but only responsibilities and liabilities.⁶⁰ Thus, it is not clear if or what rights the relevant parties (the carrier, the shipper and the holder) may have, and if they do have any in practice, how they can exercise. This is an obvious flaw of these conventions but also is one improvement in the new convention.

The procedure of compiling the new convention was initiated by UNCITRAL in 1996 and dealt with the Draft Instrument produced by CMI.⁶¹ There are several changes in the Rotterdam Rules. First, there is no concept of “bill of lading” or “document of title” in the context of the Rules, but only “transport document” and “electronic transport record”. They may be negotiable or non-negotiable.⁶² The reason of this change will be given later. Second, the Rotterdam Rules is to particularly regulate the contractual relationship under the contract of carriage,⁶³ which is a big progress in the international level. One of the proofs is the adoption of the concept of right of control. Previously, only the domestic law admitted the contractual relationship between the carrier and the holder of the document, such as Carriage of Goods by Sea Act 1992 (COGSA), which provides that the holder of the bill of lading is able to sue against the carrier personally on the basis of the contract contained in the bill of lading rather than necessarily being the owner of the goods.⁶⁴ Third, from the technical perspective, it

⁵⁹ The Hamburg Rules, a.13.

⁶⁰ The Hague-Visby Rules, at.3 and the Hamburg Rules, p.2.

⁶¹ Miriam Goldby, “The performance of the bill of lading’s functions under UNCITRAL’s draft Convention on the Carriage of Goods: unequivocal legal recognition of electronic equivalents”, *JIML 13* [2007] 160 at p162.

⁶² The Rotterdam Rules, a.1.15, a.1.6, a.1.19 and a.1.20.

⁶³ Miriam Goldby, *supra* footnote 61.

⁶⁴ Carriage of Goods by Sea Act 1992, Elizabeth II, se. 2(1).

substituted “data messages” referred in the Model Law of Economic Commerce to “electronic communications” for future developments.⁶⁵ There are also other important changes and improvements adopted in the Rules, but the mentioned ones relate to the discussion and topic of this thesis.

2.3 The Problems for Replicating The Paper Bills of Lading to The Electronic Form

Many efforts have been made to develop the traditional bill of lading into its electronic equivalent in order to catch up the speeding – up electronic commerce world,⁶⁶ but unfortunately, most of them have been failed.⁶⁷ The utilization of the electronic alternative to paper bill of lading is still not aboard nowadays. The main obstacles in using electronic form of bill of lading can be summarized into two categories: the legal issue and the technical issue. This part of the chapter will try to examine the problems that electronic forms of bills of lading are facing from these two perspectives.

The first idea came to mind when discussing the electronic replacement of bills of lading is to replicate all three functions to their alternatives. In fact, the first two functions as discussed above are both relating to the relevant parties to contracts of carriage and the contracts themselves. As a receipt of shipment, the bill of lading is issued by the *carrier* and the information recorded on it can be used as evidence for or against the *carrier*. In the second function, the terms and information used in the bill of lading can evidence the original contract of carriage between the carrier and shipper or can be treated as the contract itself between the carrier and the transferee.

⁶⁵ Miriam Goldby, *supra* footnote 61.

⁶⁶ Marek Dubovec, *supra* footnote 13, at p.437.

⁶⁷ *Ibid.* The failure can be seen from the both the technical perspective and the legal framework perspective. The pervious attempts include SEADOCS, the CMI Rules, BOLERO and so on.

Despite in which case, the bill of lading will only bind two parties and this is the principle of privity of contract.⁶⁸

The document of title, however, is different from the former two characters. The right embodied in a document of title is proprietary right — constructive possession of the goods and consequently, exclusive controlling over the goods,⁶⁹ which allows the holder to resell the goods in transit or to pledge the goods to the banks or other creditors and so on. But when the holder exercising the proprietary right, his counterparty is not the carrier but the sub-buyer or the bank according to other relationships between them, such as the sub-sale contract or the letter of credit. And these transactions would be or say, should be regulated by other laws, such as sale law, contract law, property laws or mortgage laws rather than transport laws. Therefore, whether or not the holder of the bill of lading exercises his proprietary right embodied in the document of title or how to exercise, is neither an issue within the contract of carriage nor does the carrier need to be involved. It can be concluded that the bill of lading contains two different types of relationships, the contractual ones and the proprietary ones.⁷⁰ Only the former one is related to the carrier and the contract of carriage. Thus, from the legal perspective, only the first two functions, receipt of shipment and evidenced or contained the contract of carriage, need to be set in the law or the convention governing the contract of carriage but the latter one, the document of title, deserves a place in other laws, such as sale law, property law or mortgage law.

Also from the technical perspective, replicating the two functions relating to the carriage contract is relatively easy, because they consist of the information of goods.⁷¹ Actually in our routine life, plenty of information is

⁶⁸ *Supra* footnote 21.

⁶⁹ Guenter Treitel and F.M.B. Reynolds, *supra* footnote 13, at 6-004.

⁷⁰ It can also be said that bills of lading contain two different rights, the contractual right and the proprietary right. To obtain the delivery of goods can be considered as the contractual right and to resell the goods during the transit can be deemed as the proprietary right.

⁷¹ Marek Dubovec, *supra* footnote 2, at p.448.

recorded in electronic form and spread electronically. Thus, the technology in the field is mature enough now. Moreover, the carrier is always involved into these two functions although another party can be changed from time to time, which can also assure the security of the information to some extent. Since the stable position of the carrier offers a possibility for the electronic mean, which is famous of unstable and unsafe, to be safe. For example, the e-bank system, where banks take part in all money managements or transfers and play like a manager or a notified party to help their clients to complete and to verify the online money transactions.

However, the document of title is harder to be replicated for several reasons. To begin with, the security reason. As analyzed above, the transferability is the feature of a document of title. And transfer of bill of lading means that anyone can be transferee and carrier, the only stable position, will not be involved. Thus, transferability and lack of management and monitoring increases the fraud risk, particular in the electronic world where everything is preformed intangibly. Even in the paper-based bill of lading context, the fraud risk still exists but some formal and symbolic protection can reduce the risk and make people believe that the paper they are holding is the authentic one. The paper form itself is the first protection. Forging a paper with unique stamp or special symbol of a shipping company should be much harder than stealing and copying some electronic data message. Secondly, handwriting signature by the master, the stamp, and other “superficialities” can make people confident to the document of title.⁷² But none of these can be found in the paperless world, although the technical field is trying to fix these defects through special measures.⁷³

⁷² George F. and Chandler, III, “Maritime electronic commerce for the twenty-first century”, *Tulane Maritime Law Journal* 22 [Summer 1998] 463 at 471.

⁷³ Such as the way of using password, the digital signature and even a biometric. See Alexander von Ziegler, Johan Schelin and Stefano Zunarelli(eds.), *The The Rotterdam Rules 2008 commentary to the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea*, The Netherlands: Wolters Kluwer, 2010 at p.54- p.56.

Second issue is “guarantee of singularity”.⁷⁴ The key character of the document of title is to confer the *exclusive control* over the goods to the holder, which is as a person with the actual custody of the goods.⁷⁵ In the paper bill of lading, the lawful holder is the only entitled person to be treated as possessing the goods constructively and to dispose the goods. Although in some circumstance the bill of lading is issued in several original set, which adds the danger of fraud, the potential holder will ask the full set of bill of lading to be transferred in order to decrease the risk and to protect their own interest.⁷⁶ This prudence by participants themselves is the best evidence to guarantee the exclusive control. In the e-world, however, the problem of singularity is a hit area, which is also the most mistrust of merchants come from. It is difficult for the transferors to prove that he is the only entitled person to control over the goods and even if he can, the transferee will still hesitate to take over the electronic message that embodies the proprietary right, because all this could be a trap. It is highly likely that the electronic data message is capable to be accessed by various people at the same time and all of them will assert that they have right of the goods, which will be a great threaten to the entire business.

Sea waybills can illustrate this issue better. The sea waybill is known as the nonnegotiable receipt of goods without the document of title function.⁷⁷ Due to lack of negotiability, it makes the sea waybill “a safer commercial document which is less likely to be lost, stolen, or subject to fraud”.⁷⁸ Thus, non-negotiability or say, without the document of title function, can be seen as an advantage in the procedure of replicating the paper form into the electronic form.

⁷⁴ Miriam Goldby, “Electronic alternatives to transport documents and the new Convention: a framework for future development?”, *The Journal of International Maritime Law* 14 [2008] 586 at 590.

⁷⁵ *Supra*, footnote 33.

⁷⁶ In letter of credit, the banks always do so. Also see UCP500, a. 23(a)(iv).

⁷⁷ Marek, Dubovec, *supra* footnote 2, at p.445.

⁷⁸ *Ibid*, at p.446.

The last but not the least, the discussion should be back to the legal field. In many jurisdictions, the relevant laws refuse to recognize the bill of lading performed in electronic form.⁷⁹ If it is possible to solve all the problems concerning the security or singularity as the development of technology, the denial by laws could make all of these progresses in vain. Thus, the most difficult but also the most important task for the usage of electronic equivalent is recognition by laws, which could be started from the international level.

It can be deemed that the main issue hindering the progress of transforming bills of lading to their electronic equivalent is the document of title function. The root of this function and also a barrier to the dematerializing course is that it is irrelevant to carrier or carriage contract. The transfer of title document, such as bills of lading, cannot be controlled or determined by the carrier, but entirely in the freedom of the holder of such document. Therefore, rather than striving to duplicate all three functions of bill of lading to the electronic alternative, a new direction is worth trying: transform the two functions relating to carriage contracts to electronic forms but with the legal recognition of transferability. This step should begin both from the legal and the technical aspects, which are actually on their way now.

⁷⁹ *ibid*, at p.447.

3. Electronic Commerce under The Rotterdam Rules

Once it is mentioned about electronic commerce, there is no specific or authoritative definition of it. Paperless, high speed, the usage of the Internet, the issue of security and so on are the key words and characters in electronic commerce. Also as an important link in the international commerce, carriage of goods needs to draw certain attention. The transportation service is a “paper – intensive activity”.⁸⁰ The bill of lading is an apparent example. If the dematerialization procedure improves smoothly in this field, it is undoubted that this will bring a significant influence into the entire electronic commerce. However, as it is discussed above, the nonrecognition of using the electronic forms by laws, either from the international level or from the domestic level, is an obstacle, which should be removed. Thus, this chapter will examine the relevant provisions in the Rotterdam Rules, which has offered a new framework regarding the electronic commerce, particularly focusing on the developments in the carriage of goods context, in order to observe the significance of electronic commerce in carriage of goods field and the inter-influence between the electronic commerce and the dematerialization in carriage of goods.

3.1 Chapter 3 and Chapter 8: Electronic Transport Records

There is a viewpoint needed to bear in mind, which is regardless paper transport documents or electronic forms, this is an issue regarding to format rather than substance. The foregoing conventions and most of domestic laws⁸¹ refuse to recognize the legal effect of electronic form of transport

⁸⁰ Manuel Alba, “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 [2008-2009] 388 at 391.

⁸¹ Australia is an exception. The electronic forms of sea waybills are valid due to the 1996 Sea – Carriage Documents Act. See Laryea, Emmanuel, T. “Paperless Shipping Documents: An Australian Perspective”, (2000), *Tulane Maritime Law Journal* Vol. 25 at 265.

documents. However, in the Rotterdam Rules, the core target on this issue is to provide the legal basis for using electronic forms of transport documents with the same effect as the paper documents.⁸²

Certain basic definitions should be interpreted here for the following analysis. The first one is “electronic communication”, which is provided in Art.1.17 in the Rules. In this provision, there is no specific mandatory method that the parties to the contract of carriage should use, which is unlike the provision in the Model Law on Electronic Commerce on the definition of “data message”⁸³. Thus, all means of electronic communications might be used to issue or record the electronic transport record.⁸⁴ This is interpreted as “neutrality” of the Rotterdam Rules, which not only includes all the existing communications but also accommodates to the future development.⁸⁵ Another standard in this definition of “electronic communication” is that “the information communicated is accessible so as to be usable for subsequent reference”.⁸⁶ This can be understood as the “substantial” standard of electronic communications. This criterion requires that the information should be recorded and saved in a proper way in the electronic communication, so that relevant parties are able to check.⁸⁷

Here one question needs to be clarified, which is the prima cause for the Rules providing the legal recognition and legal effect for using the electronic means. Article 3 of the Rules may answer this question, which stipulates that “[t]he notices, confirmation, consent, agreement, declaration and other communications referred to in articles 19, paragraph 2; 23, paragraphs 1 to 4; 36, subparagraphs 1 (b), (c) and (d); 40, subparagraph 4

⁸² Manuel Alba, *supra* footnote 80, at p. 395.

⁸³ UNCITRAL Model Law on Electronic Commerce, A/51/17, otherwise referred to as Model Law on Electronic Commerce, a. 2. It provides that “[d]ata message” means information generated, sent, received or stored by electronic, optical or similar means including, but not limited to, electronic data interchange (EDI), electronic mail, telegram, telex or telecopy”.

⁸⁴ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.56.

⁸⁵ M Goldy, *supra* footnote 61, at 163.

⁸⁶ The Rotterdam Rules, a.1.17.

⁸⁷ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.57. And also see Model Law on Electronic Commerce, a. 6.

(b); 44; 48, paragraph 3; 51, subparagraph 1 (b); 59, paragraph 1; 63; 66; 67, paragraph 2; 75, paragraph 4; and 80, paragraphs 2 and 5, *shall be in writing*. Electronic communications may be used *for these purposes*, provided that the use of such means is with the consent of the person by which it is communicated and of the person to which it is communicated.’ (Emphasis added) Thus, it can be concluded that the main target of the recognition of electronic means is to offer them the same effect as writing.⁸⁸ Once there is an explicit requirement on writing in the Rules,⁸⁹ using the electronic means is deemed as meeting the requirement.⁹⁰

Subsequently, Article 1.18, 1.19 and 1.20 are definitions of “electronic transport record”, “negotiable electronic transport record” and “non-negotiable electronic transport record”.⁹¹ In Art.1.18, it provides that “electronic transport record” means “information in *one or more messages* issued by electronic communication under a contract of carriage by a carrier...’ (Emphasis added). Practically, various parties might be interested in different information and involved into different parts of transactions. Technically, nowadays it is possible that the information is located and recorded in different messages within one electronic communication. Thus, Art.1 (18) of Rotterdam Rules gives this technical phenomenon effectiveness in law.

Art.1.19 defines the “negotiable electronic transport record”. Instead of using the function of “document of title” to define the “transferability”, the convention sets two requirements that transport document or the electronic record should meet simultaneously in order to qualify to be transferable.⁹² One is the format condition and one is the substantial condition. If the electronic transport record words by ‘such as “to order”, or “negotiable”, or

⁸⁸ Manuel Alba, *supra* footnote 80, at p. 395.

⁸⁹ See The Rotterdam Rules, a.19.2; a.23.1 to 4; a.36.1 (b), (c) and (d); a.40. 4 (b); a.44; a.48.3; a.51.1 (b); a.59.1; a.63; a.66; a.67.2; a.75.4; and a.80.2 and 5.

⁹⁰ Manuel Alba, *supra* footnote 80, at p. 396.

⁹¹ “Electronic transport record” in the Rules refers to the information in the electronic media. “Transport document” refers to the information in the paper media. See Manuel Alba, *supra* footnote 80, at p. 397.

⁹² The Rotterdam Rules, a. 1.15 and 1.19.

other appropriate wording recognized as having the same effect by the law applicable to the record,⁹³ it can be considered as negotiable. Moreover, the transport record has also to meet another requirement set in paragraph (b), providing that using of electronic transport record should meet the requirements set in article 9, paragraph 1, which stipulates the procedure of method of issuance, transfer of the electronic transport record and the way of demonstrating the identity of the holder and so on. Thus, if an electronic transport record fails to meet the second condition it cannot be recognized as a negotiable one.⁹⁴ The definition of “non-negotiable electronic transport record” in Art.1.20 is straightforward. It provides that “[n]on-negotiable electronic transport record” means “an electronic transport record that is not a negotiable electronic transport record” and thus is not able to transfer.

Functions of electronic transport records, which are followed those of transport documents,⁹⁵ include (a) [e]vidences the carrier’s or a performing party’s receipt of goods under a contract of carriage and; (b) [e]vidences or contains a contract of carriage.⁹⁶ It is not hard to find out that the famous *document of title* function is not adopted in the Rules either on transport documents or on electronic transport records. The reason for this change can be that “the Convention’s main concern is the contract of carriage”⁹⁷ but the document of title, as analyzed above, is a function beyond the scope of contract of carriage. Regardless electronic records are negotiable or non-negotiable both of them can perform these two functions. The last but not the least, the Rules provide no function of document of title but keep the distinction of negotiable and non-negotiable transport documents or electronic transport records, it can reply to the question posed in Chapter 2.1.2 of the thesis, which is if all the transferable transport documents must be defined as the document of title in the law. The answer should be negative. It is not necessary to define the negotiable transport documents or negotiable electronic transport records as document of title from the Rules.

⁹³ The Rotterdam Rules , a. 1.19 (a).

⁹⁴ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.57.

⁹⁵ The Rotterdam Rules, a. 1.14. Also see Manuel Alba, *supra* footnote 80, at p.397.

⁹⁶ The Rotterdam Rules, a. 1.18 (a) (b).

⁹⁷ Manuel Alba, *supra* footnote 80, at p. 397 to p. 398.

Chapter 3 of the Rotterdam Rules regulates electronic transport records specifically. The main object of this chapter is to offer a legal framework for recognition of the electronic form of transport document and to provide the electronic transport records for the same effect as the transport documents.⁹⁸

Article 8 provides that the electronic transport record has the same validness as its paper equivalent, provided that using the electronic form is with the consent of the carrier and the shipper. In paragraph (b), the equivalence between the electronic record and the paper document has been set up. The words “issuance”, “exclusive control” and “transfer” used in the electronic context correspond to “issuance”, “possession” and “transfer” in paper transport document context respectively.⁹⁹ More attention should be paid on “exclusive control”. First of all, the function of “exclusive control” is to identify the holder.¹⁰⁰ In tangible paper transport documents, possession of bills of lading is the way to identify the entitled person. However, in intangible electronic record, it is different. Only the person who has the “exclusive control” of the record is considered as the holder and the entitled person.¹⁰¹

Second, the “exclusive control” can be understood that ‘only one person should be able to lay claim to the right conveyed by the electronic transport record at any one time, namely the “guarantee of singularity”.’¹⁰² Thus, the term of “exclusive control”, “the guarantee of singularity” and “possession” is actually linked to document of title function.¹⁰³ Although there is no expression of “document of title” in the new convention, the Rules implies this function to transferable transport documents and transferable electronic records. In the paper-based field, holding and presenting bills of lading can be regarded as the guarantee of singularity. However, due to no tangible document can be presented to the carrier in the e-commerce, the way of

⁹⁸ *Supra* footnote 82.

⁹⁹ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.60.

¹⁰⁰ Manuel Alba, *supra* footnote 80, at p.410.

¹⁰¹ *Ibid.*, at 411.

¹⁰² *Ibid.* Also see Model Law on Electronic Commerce, a.17 (3).

¹⁰³ M Goldby, *supra* footnote 74, at p.590.

guarantee of singularity is different. The main issue here is to establish a method to make holding negotiable electronic transport record equivalent to possession of the paper document.¹⁰⁴ Registry system was deemed as a suitable measure to this problem,¹⁰⁵ where the information relating to the goods and parties is recorded and managed in an electronic communication. The functions, characters of registry system and if it is really adequate for electronic transport records will be discussed later.

Article 9 provides statutory elements in the private agreement on electronic record between the shipper and the carrier.¹⁰⁶ Besides reaching an agreement on using electronic transport record, the agreement itself should contain provisions that are stipulated in Article 9 otherwise the agreement would be considered void. Specifically, in the contract particular¹⁰⁷, the carrier and the shipper should agree on the measure how to issue the electronic record, how to verify and demonstrate the holder's identity and how to transfer the electronic transport record.¹⁰⁸ But as the open and neutral position the Rules has, it is free to parties to choose the electronic communication to which they prefer.¹⁰⁹ In paragraph 2, the phrase of "readily ascertainable" means that both the information recorded in the electronic communication and the electronic communication itself should be accessible to the subsequent relevant parties with legitimate interests.¹¹⁰ This can be a challenge to electronic communications, which should not only be safe for the recorded information but also be open for the following parties. In the later chapter, this issue will be analyzed in detail.

Article 10 deals with switching from the paper document to the electronic alternative or vice versa. In case where two parties agree to use the electronic form instead of transport document after issuing the paper

¹⁰⁴ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p. 60.

¹⁰⁵ M Goldby, *supra* footnote 74, at p590.

¹⁰⁶ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p. 63.

¹⁰⁷ The Rotterdam Rules, a.1.23.

¹⁰⁸ The Rotterdam Rules, a.9.

¹⁰⁹ Miriam Goldby, *supra* footnote 61, at p.163.

¹¹⁰ *Ibid.*

document, the holder has to surrender *all sets* of paper version back to the carrier, and the carrier should issue the electronic record as substitute. As a result, the paper document ceases to have effect.¹¹¹ Correspondingly, procedure of switch from the electronic record to transport document is almost the same but more complicated, because it is more difficult to stop the effect of electronic record than taking back all sets of transport document. It indicates that the certain database in the electronic communication should stop working, which requires technical supports.

Chapter 8 also deals with the electronic equivalent and its paper alternative. First, the convention envisages the possibility not to issue the transport documents or electronic transport records. In the Hague Rules, the Hague-Visby Rules and the Hamburg Rules, from one hand, it provided that the convention only applies to the contract of carriage covered by bills of lading or other transport documents.¹¹² From the other hand, in practice, it is so common that no transport document is issued at all.¹¹³ Thus, the Rotterdam Rules confronts this phenomenon and allows that no any transport document or electronic record is issued according to an agreement between the carrier and the shipper or custom, usage or practice of trade.¹¹⁴ Also in Art.5 of Rotterdam Rules, the scope of application, there is no rule saying that the convention is only applicable to the contract covered by either type of transport document or electronic transport record. The significance of recognition of no transport document or electronic transport record issued is to set a substantial foundation for electronic commerce, rather than merely

¹¹¹ The Rotterdam Rules, a.10.

¹¹² In the Hague Rules and the Hague-Visby Rules Art.1, the convention is applicable to the contract only covered by the bill of lading or other similar document of title transport documents. In Hamburg Rules Art.2, the convention is applicable to the contract covered not only the bill of lading, but also other types of transport documents. But the common feature is that the contract of carriage should be evidenced by transport document first and then the convention can be applicable.

¹¹³ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.164 and G J van der Ziel “Delivery of the goods, rights of the controlling party and transfer of rights”, *JIML* 14 [2008] 597 at 601. In liner shipping, it is estimated that up to 15% cases without issuance of bills of lading. In bulk trade, the figure is close to 50% and in oil and related trade, almost 100% cases are done with surrender of bills of lading.

¹¹⁴ The Rotterdam Rules, a.35.

giving the electronic means as the same effect as the paper form. This issue will be discussed later.

Second, what kind of information should be included in the electronic transport record? As introduced above, no matter the negotiable or non-negotiable electronic record or transport document is, they both can perform the receipt of shipment and the evidence of the contract or the contract itself.¹¹⁵ Therefore, the information of the goods should deserve a place in the record. The list from Art.36.1 to 3, e.g. description of the goods, leading marks necessary for identification of the goods and weight of the goods, is comprehensive but not exclusive.¹¹⁶ Any other information that parties consider necessary can be recorded in it. Also, as the evidence of contract or contract itself, the information of parties to the contract is important as well. One progress here is that the Rules set the requirement of identifying the carrier and the measure of demonstration of the carrier.¹¹⁷ This improvement could avoid and solve many problems under the old regime, where the identity of carrier is not necessarily shown in the transport documents. Art.41 expresses the evidentiary effect of the transport document or the electronic transport record, which is like its predecessors. Between the shipper and the carrier, it is a prima facie evidence; between the carrier and the third party in good faith, it become conclusive evidence, or also can be understood as the contract itself.¹¹⁸

Art.38 deals with the signature, which especially is a sensitive and important part in electronic commerce. In common sense, functions of signature (handwriting) are first, to identify the signatory and second, to associate the

¹¹⁵ The Rotterdam Rules, a.1.14 and 1.18. The convention expresses the function of evidenced or contained contract of carriage by the transport document and the electronic record.

¹¹⁶ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.16.

¹¹⁷ The Rotterdam Rules, a.37. There is no relevant requirement to indicate the carrier in the Hague Rules, the Hague-Visby Rules or the Hamburg Rules, which always contributes the conflict and uncertainty to the shipper and the lawful holder.

¹¹⁸ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.185.

signatory with the content of a document.¹¹⁹ In addition, the main character of signature is the uniqueness, which means that it is different from person to person and thus, it can prove the authentic connection between the signatory and the documents that he has signed. The electronic signature should also be equipped with the same effect and features. In paragraph 2 of Art.38, it provides that ‘[a]n electronic transport record shall include the electronic signature of the carrier or a person acting on its behalf. Such electronic signature shall identify the signatory in relation to the electronic transport record and indicate the carrier’s authorization of the electronic transport record’. This provision merely provides the general rule about the electronic signature and legal recognition, but actually the Rules left this issue to the agreement of the parties and the domestic law instead of setting certain specific means.¹²⁰

Some existing rules and practices can be used here to help understand the electronic signature better. First is from legal perspective, the examples are UNCITRAL Model Law on Electronic Signatures¹²¹ and UNCITRAL Model Law on Electronic Commerce. The function of model law is to offer a frame or clue for individual country and jurisdiction to adjust or to update the domestic law, thus that has no compulsory force.¹²² In Model Law on Electronic Signature, certain relevant issues relating signature and electronic communication have been settled. It defines “electronic signature” “Electronic signature” that ‘data in 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 to indicate the signatory’s approval of the information contained in the data message.’¹²³ This definition is more specific than the one in the Rotterdam Rules. It can be submitted from the definition that the electronic signature is or should be a data in electronic

¹¹⁹ *Ibid*, at p.54.

¹²⁰ *Ibid*, at p.176.

¹²¹ UNCITRAL Model Law on Electronic Signatures 2001, A/56/588, otherwise referred to as Model Law on Electronic Signature.

¹²² Jenny Clift, “Electronic commerce: the UNCITRAL Model Law on electronic equivalents to traditional bills of lading”, 27 *Int'l Bus. Law* [1999] 311 at 311.

¹²³ Model Law on Electronic Signature, a. 2(a).

form as well. The details of this model law will be given in the later chapter. Moreover, in Model Law on Electronic Commerce, Art.7 also focuses on “signature”. It provides that the electronic signature can meet the legal requirement of signature of a person if it is reliable.¹²⁴ The criterion for reliability is called “functional equivalence”.¹²⁵ In the electronic signature context, the standard is “to identify that person and to indicate that person’s approval of the information contained in the data message”,¹²⁶ which are the functions of writing signatures. It can be seen that the Model Law on Electronic Commerce aims to “enable the electronic means to achieve the same level of recognition as the corresponding paper document”.¹²⁷ This is also the same target of provisions in the Rules on electronic commerce. Thus, the “functional equivalence” approach is also adopted in the Rules.¹²⁸

Secondly, from the practical perspective, is the ‘digital signature’ that we use in our e-bank accounts.¹²⁹ Each time we pay or transfer money online, which are the services that most of banks are able to offer via the Internet, we need to log on our e-bank account first (where the password regime involved) and then the bank system will create a string of digital *randomly* and send it to our cell phone or other tools that are private and *only can be accessed* by us. And then we need to enter that digital to verify the purchase. The digitals are different from time to time in order to avoid the risk of copying, which actually satisfy the uniqueness feature of signature at the same time. The password and digital signature regimes work together can secure our online purchase, which should be able to secure the transport electronic record as well.

Generally speaking, the aim of provisions in the Rules on electronic transports records is to give the electronic form of transport documents as

¹²⁴ Model Law on Electronic Commerce, a.7 (1)(a).

¹²⁵ Jenny Clift, *supra* footnote 122, at p. 312.

¹²⁶ Model Law on Electronic Commerce, a.7 (1)(b).

¹²⁷ Jenny Clift, *supra* footnote 122, at p. 312.

¹²⁸ The Rotterdam Rules, a.38.

¹²⁹ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.55. Simply speaking, the digital signature is a way of coding based on mathematics.

the same legal effect as paper documents. The Rules do not create the electronic transport record, because the merchants have already used the electronic means according to contracts or agreements before the Rules.¹³⁰ However, the efficiency of electronic means could not perform perfectly without the recognition by laws. Thus, the Rules offer the legal effect to the electronic means in order to make electronic means used without any personal hesitation or legal obstacle. Nevertheless, it is needed to repeat here that providing legal effect for electronic means is from the formal perspective to govern the electronic commerce in the Rules, but the substantial foundation is necessary and important as well.

3.2 Chapter 9, 10 and 11: Right of Control and Relevant Concepts

One of the outstanding improvements of the Rotterdam Rules is adopted the concept of right of control under the contract of carriage.¹³¹ One question here must be answered, why does the Rules adopt the concept of right of control. This question can be answered from different angles and the electronic commerce will be the one of them here.

Firstly, it is submitted that some criticisms on adopting the right of control by the Rules. The most common comment on the right of control is that this is not a concept relating to transport law but sale law.¹³² However, due to the Rules' main concern is the contract of carriage rather than other type of contracts, the concept of right of control is "an expression solely related to the contract of carriage *per se*".¹³³ Thus, it can be deemed that the concept of right of control in the Rules is a contractual right in contract of carriage and it also can be considered as a symbol of the Rules, which is different

¹³⁰ Manuel Alba, *supra* footnote 80, at p. 392.

¹³¹ This is the first time in an international legislation on carriage of goods by sea to have provisions on rights of parties.

¹³² Rhidian Thomas, "And then there were the Rotterdam Rules", *JILM* 14 [2008] 189 at 189. Anthony Diamond, "The Next Sea Carriage Convention?", *LMCLQ* 2 [2008] 135 at 138.

¹³³ G J van der Ziel, *supra* footnote 113, at p.599.

from the pervious conventions where there was no explicit provision on rights.

Second, the answer will be given from the electronic commerce perspective. On the surface, right of control is irrelevant to electronic commerce, because which is always understood as a pure contractual right introduced by the Rules in order to indicate the main concern of it: the contract of carriage. However, from the electronic commerce perspective, the answer could be a bit different. The feature of electronic commerce is paperless, which not only manifests that the electronic means can be used as a format to exist, but also implies that there can be no any kind of format existing at all. “[F]or all practical purposes, a document as a symbol of the goods is no longer necessary.”¹³⁴ Regardless paper documents or electronic transport records, which have the same effect as the transport documents in the Rules, they both represent the traditional view, documents as symbol of goods,¹³⁵ although the recognition of electronic transport records has been considered as a leap improvement. The Rules also admit the fact that there can be no transport document or electronic transport record issued, which means that the format are not necessary in commerce any more.¹³⁶ Thus, the view of people should be changed, into which is that in electronic commerce, the format and the substance do not need to coexist and the latter one should be decoupled from the former one.¹³⁷ In order to define electronic commerce more comprehensive and logical, the Rules adopt the right of control as the substantial concept besides merely giving the legal recognition of electronic means. Also due to the main focus of the Rules is the contract of carriage, as contractual right, right of control should be introduced as well.

There are three chapters dealing with contractual rights and related issues: Chapter 9 “Delivery of goods”, Chapter 10 “Rights of controlling party” and

¹³⁴ Gertjan van der Ziel, “Chapter 10 of the Rotterdam Rules: Control of Goods in Transit”, *Tex. Int’l L. J.* 44 [2008-2009] 376 at 377.

¹³⁵ *Ibid.*

¹³⁶ The Rotterdam Rules, a. 35.

¹³⁷ Gertjan van der Ziel, *supra* footnote 132, at p. 377.

Chapter 11 “Transfer of rights”. The details of each chapter are examined here.

In order to examine the contractual rights of one party to the contract, it is easier to clarify the contractual obligation of the other party first. Although the Hague Rules and the Hague-Visby Rules stipulated plenty responsibilities of the carrier, they still missed the important one – delivery of the goods by the carrier.¹³⁸ In the Hamburg Rules, there is a provision providing that the carrier is liable for delay in delivery of goods in the discharging port, from which it can be deduced that delivery of goods and delivery on time should be the statutory obligation of the carrier. In Art.11 of the Rotterdam Rules, “carry the goods to the place of destination and deliver them to the consignee” is the specific obligation of the carrier under the contract of carriage. Thus, the correspondence of the carrier’s contractual obligations should be his counterparty’s contractual rights. Two questions arise here: Who is the counterparty of the carrier? What are his contractual rights?

It is known that the carrier is one party to the contract of carriage. Thus, as another party to the contract, the shipper is the original counterparty of the carrier.¹³⁹ Shipper’s contractual rights should be set and found in the original contract of carriage. When transport document or its electronic equivalent is transferable, the document or record can become the contract itself between the carrier and the holder as transfer. The holder is merely relevant in the negotiable transport documents or the negotiable electronic transport records.¹⁴⁰ In the circumstance of no transport document or electronic record or non-transferable document or electronic record is issued, the shipper and the consignee will be involved as the counterparty of the carrier.¹⁴¹ The consignee, according to Art.1.11, is the person who is

¹³⁸ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.189. Also see the Hague Rules and the Hague-Visby Rules, a.3.

¹³⁹ The Rotterdam Rules, a.1.8.

¹⁴⁰ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.191. Also see the definition of “Holder” in the Rotterdam Rules, a.1.10.

¹⁴¹ *Ibid.*

entitled to obtain delivery of the goods, but his right to obtain the delivery is different from the right of control.¹⁴² Another concept, “controlling party”, is more important. The controlling party refers to the people who are entitled to exercise the right of control according to Art.1.13. In Art.1.12, it provides that “right of control” is the right to give instructions to the carrier over the goods under the contract of carriage. It manifests that right of control is a contractual right and the object of which is the carrier. Therefore, the controlling party that is entitled to exercise the right of control is the counterparty of the carrier during the transit.¹⁴³ The relationship between shipper, holder, consignee and controlling party will be examined later. The question that which one of them is the counterparty of the carrier will be answered in different circumstances.

Chapter 10 addresses rights of controlling party. Obviously, the right of control is the most important right that the controlling party has.¹⁴⁴ However, the right of control, in the regime of Rotterdam Rules, ‘does not relate to the idea of possession of the goods during their carriage by sea’.¹⁴⁵ In other words, it is not the proprietary right based on the document of title or possession of the goods. Right of control, as defined in Art.1.12, is an absolute contractual right. One reason for this is that in the entire text of Rotterdam Rules, there is no concept of document of title or the constructive possession of the goods. Right of control, of course, should not appear suddenly to deal with the proprietary rights. On the contrary, the new convention intensively governs the contract of carriage and the relationship between the contractual parties, e.g. carriers, shippers, controlling parties and so on. Thus, it is appropriate to abandon the document of title that is irrelevant to the carrier or to the contract of carriage and to stipulate certain

¹⁴² Because the consignee is only entitled to obtain the delivery but not to exercise other kinds of rights which are part of the right of control, such as to give other instructions to the carrier or to change the consignee.

¹⁴³ G J van der Ziel, *supra* footnote 113, at 603.

¹⁴⁴ Apart from right of control, the controlling party also has other rights, such as to agree with the carrier to modify the contract of carriage during the transit. This right will be examined later. Also see The Rotterdam Rules, a. 54.

¹⁴⁵ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.221.

rights under contract of carriage, which is an omission in the previous conventions.

Exercise and extent of the right of control is provided in Art.50. The right of control includes a) to give or modify the instruction in respect of the goods; b) to obtain the delivery of goods and c) to replace the consignee.¹⁴⁶

Paragraph (a) refers to the instructions relating to regular performance of carrier's obligation of taking care of the goods during transit, e.g. keep the certain temperature, which is not considered as a variation of the contract.¹⁴⁷

Paragraph (b) expressly indicates that the controlling party is entitled to obtain the delivery, which officially means the transfer of responsibility for the goods from the carrier to the consignee.¹⁴⁸ This paragraph proves that taking delivery of goods is not based on the proprietary right under document of title but on contractual right under the contract of carriage.

Paragraph (c) may refer to modify the contract of carriage, because the consignee is usually written on the original contract of carriage. In fact, the controlling party also has the specific right to vary the contract with the carrier provided in Art.56 but not only limited to change the consignee.

Art.51 is dealing with the criteria for identifying the controlling party depending on different types of transport document or electronic record.¹⁴⁹

The first paragraph is considered as the general rule and the followings provide the exceptions. Usually, the shipper is the controlling party.¹⁵⁰ This criterion is applicable to the situation where a non-negotiable transport document, a non-negotiable transport record, or no transport document is issued.¹⁵¹ Moreover, the shipper is also entitled to *nominate* the consignee or the documentary shipper as the controlling party in the occasion where a non-negotiable transport document, a non-negotiable transport record, or no

¹⁴⁶ The Rotterdam Rules, a. 50.1.

¹⁴⁷ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.221.

¹⁴⁸ *Ibid*, at p.214.

¹⁴⁹ *Ibid*, at p.225.

¹⁵⁰ The Rotterdam Rules, a. 51.1 (a).

¹⁵¹ Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.225.

transport document is issued. This can be understood as that the shipper is acting as an agent for the consignee or the documentary shipper to enter into the contract of carriage and then return the contractual rights back to his principals, where the goods are not expected to resell in transit. Or on the contrary, the shipper delegates the consignee as his agent at discharging port and conferring right of control to consignee which can facilitate him to be an agent.

In the circumstance where the transferable transport document or the electronic record is issued, the holder is the controlling party.¹⁵² The key point here is that the holder must comply with the procedure adopted in the contract of carriage to demonstrate his identity. Thus, it is submitted that the shipper, the consignee and the holder may become the controlling party.

Right of control is transferable but the way to transfer depends upon the type of the transport document or electronic record. If a negotiable transport document or electronic transport record is issued, the right of control can be transferred to any other person through the transfer of the document or the record, including the sole delivery of the document or record or delivery the document or record plus necessary endorsement.¹⁵³ If a non-negotiable transport document that indicates that it shall be surrendered to obtain the delivery, the shipper, who is the default controlling party, is only entitled to transfer the right of control to the named consignee.¹⁵⁴ Thus, the transfer can only take place once from the shipper to the named consignee and the latter one is not entitled to transfer the document or record and the rights embodied in it to any other person. If non-negotiable transport document or record or no transport document is issued, the shipper cannot transfer his right of control or the to other person but only “designate” the consignee or

¹⁵² The Rotterdam Rules, a. 51.3 and 51. 4. In fact, there is a special condition stipulated in Art.51 paragraph 2 of The Rotterdam Rules, where a non-negotiable transport document that indicates that it shall be surrendered in order to obtain the delivery is issued, the shipper is the controlling party except that he transfer the right of control to the named consignee. In this case, either the shipper or the consignee can be the controlling party.

¹⁵³ The Rotterdam Rules, a.1.10 (a).

¹⁵⁴ The Rotterdam Rules, a.51.2.

the documentary shipper as the controlling party when concluding the contract of carriage with the carrier.¹⁵⁵ In other words, the carrier is informed that the controlling party is the consignee rather than the shipper in the beginning. No matter which type of the transport document or electronic record is issued, they all represent right of control. As long as the contract of carriage exists, there should be a party as a controlling party and entitled to exercise it.

Apart from requiring delivery of document or record and endorsement in some certain situations when transferring of right of control, the transfer becomes effective *to the carrier* upon the notification to him according to Art.51.1 (b) of the Rotterdam Rules. The necessity of notification to the carrier can be explained through the nature of right of control. Right of control is a contractual right and the object of exercising it is the carrier. Transfer of this right amounts to that the transferor assigns his contractual position in a contract to another person, which constitutes the variation of the contract. This variation or assignment of a contract should be notified to another party, which is the carrier in contract of carriage, who has the obligation to deliver the goods to the right person. The notification can validate the novation from legal point and facilitate in fulfilling the carrier's duty from practical point.¹⁵⁶ Thus, transfer of right of control will be effective with the respect of carrier upon the notification sent to him. In the technical field, a notification system arranged by the carrier could be a proper solution, which will be discussed later.

Another right of controlling party is to agree with the carrier to variations of the contract of carriage.¹⁵⁷ Art.54.1 stipulates that the controlling party is the only entitled party to negotiate with the carrier any kind of variations to the contract of carriage. Usually, only the parties to a contract have the right to negotiate with each other and to get agreements on variations. So the

¹⁵⁵ The Rotterdam Rules, a.51.1.

¹⁵⁶ In many jurisdictions, variation of a party in a contract needs to notify or get the consent of the other party otherwise it is void.

¹⁵⁷ The Rotterdam Rules, a. 54

problem here is whether the controlling party is a party to the contract of carriage. Professor G.J. van der Ziel pointed out in his article that this issue is actually left to the domestic law by Rotterdam Rules.¹⁵⁸

Regarding the transport document or electronic record can be transferable and become contract between the carrier and the transferee in good faith, first, *the holder* of the negotiable transport document or electronic transport record is the party to the contract of carriage with carrier.

Second, in the case where the non-negotiable document or the record or no transport document is issued, the situation is complicated. *The shipper* is controlling party and a party to the contract of carriage at the same time, if he does not designate the consignee or the documentary shipper as controlling party. If consignee or documentary shipper is designated as the controlling party by the shipper when he concludes the contract with the carrier, as a result, the consignee or the documentary shipper is entitled to exercise contractual rights, including right of control, right of variation and so on.¹⁵⁹ However, in fact, due to the transport document or electronic record is not transferable, which is not able to become contract between carrier and controlling party, thus the shipper is still the party to contract of carriage but without contractual rights. Furthermore, as a controlling party, consignee or documentary shipper is entitled to verify the contract with carrier. The problems here are first, how the variations of contract between the controlling party and the carrier affect the relationship between the shipper and the carrier and second, how the evidentiary function of transport document or electronic record works. The designation by the shipper when concluding the contract of carriage is similar to interring an agent term in it. The controlling party plays as the agent of the shipper who enters into the contract with the carrier on his own name but once the contract is signed, his agent, the controlling party, will exercise all the shipper's contractual rights. If this reasoning is correct, the results of the controlling party exercising the

¹⁵⁸ G J van der Ziel, *supra* footnote 113, footnote 22 at p.603.

¹⁵⁹ The Rotterdam Rules, a.54.

right of control as well as other rights will be borne by the shipper. For example, the agreement of variation of contract between the controlling party and the carrier could be considered as the agreement between the shipper and the carrier. However, this is merely the inference given by the author. The actual relationship between the carrier and the shipper and the controlling party needs the more careful explanation on the Rules. In other words, this occasion shall be solved within the convention but not left to domestic laws.

The real problem arises in the condition of the non-negotiable transport document that indicates that it shall be surrendered in order to obtain delivery of goods. This type of transport document can be considered as “straight bills of lading”.¹⁶⁰ The legal status of straight bills of lading is different in different jurisdictions.¹⁶¹ Thus only in this case, whether the controlling party is the party to the contract of carriage or not is determined by the domestic law.

Chapter 11 “Transfer of rights” is to address some practical problems with regard to transfer of the rights.¹⁶² The main problem is the security and verity issue on transfer of right embodied in electronic record. In Art.57.2, it provides that the holder of negotiable electronic transport record may transfer the rights incorporated in it by transferring the electronic record in accordance with the procedure referred to in article 9, paragraph 1. However, it is merely the general rule because the procedure dealing with the way of transfer of the electronic transport record is under the choice of the parties to the contract of carriage.

Chapter 9 deals with delivery of goods and obligations of the controlling party. For the consignee who demands the delivery of good under the

¹⁶⁰ A bill of lading contains a named consignee on it and requires production of the bill on delivery.

¹⁶¹ In some jurisdictions, straight bills of lading are the document of title, like France, Singapore and Holland. But in some others, they are not document of title.

¹⁶² Alexander von Ziegler, Johan Schelin and Stefano Zunarelli, *supra* footnote 73, at p.239.

contract of carriage, accepting the delivery is his obligation.¹⁶³ However, when the carrier cannot find any relevant information about consignee in the contract particular before the delivery, it is controlling party's obligation to advise the carrier the name and the address of the consignee.¹⁶⁴ Thus apart from rights, there are also obligations on the controlling parties' shoulders.

In sum, the most important feature of right of control is its contractual right nature. Transfer of right of control is related to the transfer of the transport document or electronic record, which is different from the transfer of constructive possession of goods. Regardless whether the controlling party is the party to the contract of carriage or not, he is the only counterparty of the carrier during transit.¹⁶⁵ Thus, the right of control merely concerns the carrier and the entitled person under the contract of carriage. As to the underlying reasons why the transfer of the right of control takes place or why certain people can become the transferee of right of control or what he has paid for getting the right, are not within the scope of carrier's concerning or contract of carriage. Moreover, thanks to that the transfer of right of control requires sending the transferring notification to the carrier, it makes the notification systems running by the carrier, which may offer other services for right of control and electronic record regime, become possible and reasonable from legal respective.

3.3 The Relationship between Electronic Records and The Right of Control under Electronic commerce

Generally speaking, electronic record is from formal perspective to define the electronic commerce in carriage of good, and the right of control is from substantive perspective.¹⁶⁶ The Rules try to provide a framework for electronic commerce both from formal perspective and substantial

¹⁶³ The Rotterdam Rules, a.43.

¹⁶⁴ The Rotterdam Rules, a.45.

¹⁶⁵ G J van der Ziel, *supra* footnote 113, at 603.

¹⁶⁶ Manuel Alba, *supra* footnote 80, at p. 394.

perspective.¹⁶⁷ Thus, this is an issue from two different levels. As a new format to perform the two functions of transport documents, the Rules admit that electronic transport records have the same effect as paper documents, which has not been done by any previous conventions. However, apart from the formal issue, the substantial issue in electronic commerce is more important, which is indicated as the adoption of right of control by the Rules.

As discussed above, the view that the documents or other formats represent the goods or rights should be changed in electronic commerce. The rights can exist independently. When an electronic transport record issued by the carrier, which is as a receipt of shipment and evidence of contract of carriage or the contract of itself, the right of control is embodied in the record. For example, the holder of it, in the transferable electronic transport record case, is the controlling party who is entitled to exercise the right of control.¹⁶⁸ In this condition, the format and the substance coexist. However, formats do not always exist and the Rules also admit this.¹⁶⁹ If the Rules did not adopt the right of control but merely gave the legal effect to electronic transport records, electronic commerce could not conduct in the circumstance where no electronic transport records or transport documents issued. Thus, in order to define the electronic commerce in sea carriage comprehensively, adoption of right of control is necessary.

As to the relationship between right of control and electronic transport records, the former one is the substance and the latter one is the format. The substance can be embodied in the format, but also can exist without being performed by the format. In electronic commerce in sea carriage, right of control is the substantial issue and exist alongside the contract of carriage rather than attaching to any document or record.

¹⁶⁷ *Ibid*, at p.394.

¹⁶⁸ The The Rotterdam Rules, a. 51.3(a).

¹⁶⁹ *Ibid*, a. 35.

4. Registry Systems and Notification Systems

Commerce implies the transferability, so does in electronic world. In framework of the Rotterdam Rules, the negotiable electronic record is valid legally and thus, can be transferred intangibly. However, in electronic commerce, the security in the transfer deserves the highest priority to consider. There are two problems need to be solved in the practice of electronic transport records. One is the guarantee of “exclusive of control”, which means that only one person is able to access the record at any one time in order to protect all the involved parties interest.¹⁷⁰ Another one is the authenticity of electronic record and of the accessing party. In other words, how to prove or verify the record and the entitled person is the authentic one. The first issue needs to adopt the register system or other similar ones, where only the registered person is entitled to exercise the rights.¹⁷¹ But to solve the second problem, it requires introducing the technical support to insure that the systems and the progresses used by the systems are safe enough, so that no data message or information could be stolen or copied or accessed by unentitled persons.

4.1 The Differences Between Registry and Notification

The emergence and necessity of registry systems is to meet the requirement of “guarantee of singularity”, the idea of which relates to the function of document of title.¹⁷² The main target of registry systems, not only restricted into electronic commerce, is offering a platform to record the proprietary right of the entitled person and to govern the transfer of such a right, such as register the title of land. Thus, registry regimes aim to duplicate the bill of lading and its document of title function electronically. However, the

¹⁷⁰ M Goldby, *supra* footnote 74, at p.590

¹⁷¹ *Ibid.*

¹⁷² *Supra* footnote 102 and 103.

document of title is either irrelevant to the carrier's performance under the contract of carriage or within the scope of Rotterdam Rules. Neither delivery of the goods by the carrier nor the right to obtain the delivery by controlling party is based on the document of title, but the contract of carriage. There is no concept of document of title or the proprietary right but only the right of control in Rotterdam Rules.¹⁷³ Thus, it might not be appropriate to use registry system that aims to proprietary rights.

Due to the nature of right of control, the carrier is always involved. In issuance, the carrier is the issuer of the transport document or electronic transport record. In transfer, the notification to the carrier is compulsory, in order to validate the transfer of right of control. The notification system run by the carrier for issuing electronic transport records and recording the transfer could fit the new regime. In fact, the foundation for registry system and notification system are various, the former one is based on the proprietary right and the register is more like a manager who is charge of administration but not involved in each transaction. While the notification system is based on the contractual right and the runner of it is always relevant. Thus under the Rotterdam Rules, establishing a notification system could be more suitable than the registry one.

4.2 Various Types of Registry Systems

It is necessary to introduce registry systems, which is helpful for understanding the operation of notification system as well. Generally, there are three various sorts of registry systems, which are the governmental model, the central model and the private model.¹⁷⁴ Advantages and disadvantages of each of them are introduced here.

The governmental registry system is a typical one for possession and transfer of proprietary right.¹⁷⁵ It is always used for registry of high value

¹⁷³ The Rotterdam Rules, a.51.1 (b).

¹⁷⁴ George F. Chandler, III, *supra* footnote 72, at p.473.

¹⁷⁵ *Ibid.*

property, such as real estate or land.¹⁷⁶ One of the advantages of this type of system is that the government or associate that offers the service is a neutral party, which is not involved into the transaction. Another good point is that this is a uniformed system managed and controlled by one department of the government in order to avoid chaos. Moreover, the governmental system is open for every one rather than only for certain parties, such members. However, the disadvantages of it cannot be underestimated either.

The CMI Rules for Electronic Bills of Lading can be used as an example here, although it is not operated by any certain government but by an association. The CMI Rules introduced a “Private Key” to replace the bill of lading.¹⁷⁷ The “Private Key”, which is used to verify the holder of the electronic bill of lading, will change to a new one as the transfer to a new holder.¹⁷⁸ The big problem here is that due to the “Private Key” is changed following the transfer, so the system will ask the carrier to authorize and issue the “Private Key” in order to be informed the identity of the new holder who is entitled to delivery of the goods.¹⁷⁹ It indicates that the carrier has to be involved in each transfer process, which is not necessary to him. As analyzed above, the transfer of document of title and proprietary right is beyond the carrier’s control and concern. In the paper-based world, on one hand, surrender of the bill of lading itself is enough to identify the holder and there is no need to inform the carrier in advance. On the other hand, in the real estate registry system, only the entitled person, e.g. the owner or the mortgagee of the property and the register will involve. And the register will not ask other parties to authenticate the procedure of registry. Thus, the main problem here is that the carrier has to take part into an unnecessary progress each time, which would make the whole procedure more complicated.

¹⁷⁶ *Ibid.*

¹⁷⁷ Marek Dubovec, *supra* footnote 2, at 451.

¹⁷⁸ George F. Chandler, III, *supra* footnote 72, at 475.

¹⁷⁹ Marek Dubovec, *supra* footnote 2, at 451.

The BOLERO system can represent the central registry system model, which was created by SWIFT in 1998.¹⁸⁰ But during 2010, the operation of all BOLERO services was transitioned to a specialist global hosting partner.¹⁸¹ The precondition that the users should meet is to be a member of the BOLERO system. In fact, this is an effective way to prevent unauthorized access to the information.¹⁸² The good point of this system is that it tried to not only solve the problem of transfer of the constructive possession of the goods but also the problem of transfer of the contractual rights, which should be deemed as a progress at time without Rotterdam Rules or concept of right of control.¹⁸³ The Title Registry in BOLERO system is the servicer for transfer of a document of title. In the Article 3.6 of Rulebook,¹⁸⁴ it provides that ‘[u]nder a contract of carriage in respect of which a BOLERO Bill of Lading has been created, delivery of the goods shall only be made by the carrier to, or to the order of, a holder-to-order or consignee holder which duly surrenders the BOLERO Bill of Lading.’ It can be seen that the BOLERO system aims to replicate bills of lading with full function into electronic forms.

Moreover, the BOLERO system also offers the service on the transfer of contractual rights. There are also novation provisions in the BOLERO Rulebook and the effect of novation is to terminate the old contract between the carrier and the previous holder of the document of title and substitute with the contract between the carrier and the new holder.¹⁸⁵ Actually the novation regime provided in BOLERO Rulebook could be used for the foundation of notification system, which will be discussed later.

Unfortunately, this regime failed again. The principle of registry of proprietary right in many jurisdictions is public. Differs from the contractual

¹⁸⁰ *Ibid*, at 452

¹⁸¹ <http://www.BOLERO.net/en/core-technology/overview.aspx>. Visited on 31th of May.

¹⁸² M Goldby, *supra* footnote 28, at p.131.

¹⁸³ *Ibid*, at p.130.

¹⁸⁴ The Rulebook is available online at:

<http://www.BOLEROassociation.org/downloadas/rulebook1.pdf>. BOLERO Rulebook is the regulations governing the operation of the system.

¹⁸⁵ M Goldby, *supra* footnote 28, at p.130.

rights, the proprietary right is not only bound or effect on two parties, but on any one. The owner or the pledgee of goods should be known and checked by any other people who have legal interests in goods and the public.¹⁸⁶ But the membership foundation of BOLERO is an obstacle to the public who will to check the proprietary rights on the goods. Moreover, although the membership basis is good at guarantee the security, it implies that the register is involved again besides the carrier and the holder. Contrary to the transparency of proprietary right, the contractual right is an absolute private right and it appreciates that only the relevant parties take part in. Thus, the central system is in an embarrassing situation: closed for proprietary right but open for contractual right.

The last example is the private model, where the register is the issuer of the document of title.¹⁸⁷ From contractual perspective, the private model is even more closed comparing with the central model, because in which there are only two parties involved, the carrier who issued the document of title and the holder of the document of title. However, if it is examined from the proprietary right perspective, this system is too closed and private to be checkable and accessible to other parties, which is the similar problem in the central system but even worse. In addition, the carrier is the issuer of the document of title, who is not impartial for registry of proprietary right.

All these three models have their defects in intending to register the proprietary right respectively. The drawback of governmental model is that the carrier, who is, in fact, irrelevant to the proprietary right and its transfer, has to be involved each time, which will make the situation complex. The disadvantage of the central model is the strict membership rule, which is good for security of transfer and record but contrary to the public feature of the proprietary right.¹⁸⁸ Also from contractual perspective, the register, which is running the system, is not relevant to the contract but has to be notified from time to time. Moreover, due to the function or say, the concept

¹⁸⁶ Marek Dubovec, *supra* footnote 2, at 453.

¹⁸⁷ George F. and Chandler III, *supra* footnote 72, at 474.

¹⁸⁸ Marek Dubovec, *supra* footnote 2, at 453.

of document of title is beyond the scope of the Rules, so the registry of title service is not necessary in an electronic communication system under the Rules. Actually, just the Title Registry, which governs the transfer of document of title, is the reason for its failure.¹⁸⁹ Regarding to the private model, the feature that the register is the carrier is good for contractual rights but unfavorable to the proprietary right.

If it is merely observed from registry systems that aim to record proprietary right, none of the options is good enough. Thus, it would be better to switch to another perspective in order to find out a better method for electronic commerce in carriage of goods by sea.

4.3 Notification Systems Could Be Better

Due to there is no concept of proprietary right in the Rotterdam Rules, so no need for adoption of registry systems. Instead, right of control is introduced as a contractual right by the new convention. Exercising right of control needs the controlling party and the carrier to get involved. It is for sure that there should be underlying transactions when transferring right of control, such as a contract of sale or a letter of credit.¹⁹⁰ But the Rotterdam Rules, which governs contract of carriage, will not apply to those underlying contracts and transactions. In addition, the carrier will not join in any underlying transaction initiated by controlling party. The effect of transactions may lead that the entitled person of proprietary right has changed, which should be recorded in a public registry regime. However, the common point behind the underlying transactions is that the controlling party has changed as well, which relates to the carrier and should be informed the carrier. Moreover, when transferring right of control, the notification of transfer to the carrier is necessary due to the convention.¹⁹¹ Also due to Article 3, the notification can be considered as in writing if it is

¹⁸⁹ Marek, Dubovec, *supra* footnote 2, at p.453.

¹⁹⁰ The transferability of transport documents and records is the evidence for The Rotterdam Rules admits the function of document of title, although it does not mention this directly in context.

¹⁹¹ The Rotterdam Rules, a.51.1 (b).

in electronic forms. Thus, an electronic communication servicing for recording contractual rights and its transfer, the notification system, should be deemed as a good substitute for the registry system under the Rotterdam Rules.

According to the transfer of right of control under the transferable transport document or the transferable electronic transport record, three parties are involved in this procedure, the carrier, the old holder and the new holder. If it is observed motionlessly, only the carrier and the holder, who are both related to the contract of carriage, are involved. As the transfer of right of control, the old holder is replaced by the new holder and quit from the contract of carriage consequently. This is similar to the novation provisions in BOLERO Rulebook.¹⁹² Owing to the proprietary right is not the object of registry but merely the contractual relationship is relevant, the governmental model is not favorable. Moreover, the carrier of the goods probably will not change during the transit, so the uniform code, like SWIFT, which is used to communicate among the members of organization, is not necessary either. Thus, the central model is not suitable. According to the electronic record is issued by the carrier, who also needs to be informed when the record is transferred, so the appropriate and convenient way for both carriers, holders and transferees should be the notification system, which is arranged by carriers. Thus, the private model, namely the carrier's notification system can be the best solution.

4.4 Can Notification Systems Solve The Problem of “Guarantee of Singularity”?

The purpose of registry system is to solve the problem of “guarantee of singularity” that is an issue understood under the document of title, but the notification system, as discussed above, is for the contractual right under Rotterdam Rules. So the problem arises again: if the notification system can guarantee the “exclusive control” of the electronic record

¹⁹² *Supra* footnote 185.

One point needs to be clarified here, is that the transferable transport document and electronic record still has the document of title character and embodies “exclusive control” over the goods.¹⁹³ In fact, from the provisions of Rotterdam Rules, the singularity is also important to the right of control. In Art.51.3, it provides that the holder of all originals transport document is the controlling party. Similarly in electronic transport record, this is a requirement for the carrier to issue one record to the shipper and to make sure that only the controlling party is entitled to exercise right of control.¹⁹⁴ Thus, the notification system should meet this “exclusive control” of contractual right condition set in this provision.

If the notification system can do guarantee the singularity of right of control, the exclusive control relating the proprietary right can be solved and guaranteed simultaneously. Apart from introduction of notification system, technical support is important in this field, which should work on keeping the system safe and stable.

4.5 The Model of Notification Systems

What model of notification system should the carrier use to issue electronic transport record and to record its transfer? Two options will be introduced here.

The first one is e-bank system.¹⁹⁵ Actually this system is familiar to us today. Some systems utilize the fixed password when users log in, but more and more banks introduce the constant password, which is created randomly according to mathematic method. It will be sent to the users’ registered cell phone or, a card reader holding by the user that can generate the password itself. Moreover, the user is also asked to input some personal information, e.g. identification number or password for account, on webpage. The personal information together with constant password can guarantee, to

¹⁹³ The Rotterdam Rules, a.8 (b).

¹⁹⁴ The Rotterdam Rules, a.51.4. and a.9.

¹⁹⁵ See G J van der Ziel, *supra* footnote 113, at p.606.

large extent, that only the authentic user can access his account at any one time. E-bank system also uses the digital signature technic, which is similar to the constant password, when it needs to confirm some actions the user wills to do. For example, the last step before transferring money to another account, the user has to enter the electronic signature to make sure that he is the authentic person and aware of this action.

Another system is the stock transaction system.¹⁹⁶ In fact, the transactions of stock are based on a central registry system. The new buyer goes to a platform where can check all the information of the all the public companies. Although transferring stock from one shareholder to another is similar to a novation of contract,¹⁹⁷ the new buyer has the right to choose which company's share he would like to hold. This procedure is different from obtaining the right of control from the proceeding controlling party in transit, because the new controlling party is interested in the goods but not the carrier. The new controlling party may conclude an underlying contract with the current controlling party in aspect of goods and, as an auxiliary result he becomes the counterparty of the carrier under the contract of carriage. Thus, the new controlling party cannot choose or change the carrier, who is carrying the goods in which that new controlling has legal interests in transit.

In fact, the notification system is a one-to-one system that is more similar to the e-bank system. The bank is always a party to each transaction: open an account, confirm a transfer and so on. Each transfer should be informed to bank in order to get the authentication and confirm, but bank will not ask why the user wants to transfer his money. At any given time, there should be only one person entitled to access his account and to manage his money. Carrier's notification system could take this as an example. The carrier, which issues an electronic record and is notified about transfer, is like the bank. And the registered holder, who is the only entitled person to access electronic record, is like the user. However, the differences between the e-

¹⁹⁶ M Goldby, *supra* footnote 28, p.127-128.

¹⁹⁷ *Ibid.*

bank system and notification system still exist. In the former one, the relationship between users is parallel to each other, although a bank can have millions of user at one time. In the latter one, the holder of transport document or electronic transport record is successive: the new holder will substitute the old one through transferring the right of control. Transfer of money from account A to account B does not amount to that the contract of service on account A is over, but transfer of right of control from controlling party C to controlling party D is equal to that C has quit from the contract of carriage but D is a new party to the contract. Nevertheless, e-bank systems can be referenced as a model to notification system.

The only problem here is although all of these procedures can be fulfilled online, it is deemed that a tangible terminal tool held by the holder using to receive the constant password and digital signature is important. In e-bank system, each user can have his own generator tool. However, it is impossible to delivery a common card reader among different parties in carriage of goods, which is actually against the target of electronic commerce – speed and convenient. Thus, a possible way is to ask the new holder of electronic transport record to bind his cell phone number or email address to the carrier's notification system in order to receive the password and the signature. This is also the measure that many banks are applying now instead of using the material receiver. Although this method is admitted more convenient, the security of email and SMS is another factor to be considered and valued.

5. Right of Control and Other Similar Concepts

Right of control is a concept under contract of carriage in the Rotterdam Rules. The two parties here are the controlling party and the carrier. However, during transport of goods, it is possible that the carrier is getting involved into other relationships, such as with the seller who may not be a party to the contract of carriage. One of these relationships is when the seller exercises his remedy against the buyer under the contract of sale, which is called right of *stoppage in transit*. This chapter will mainly examine the comparison and the conflict between right of control and stoppage in transit.

5.1 Features of Stoppage in Transit under English Law

The right of stoppage in transit, which is a concept in sale law, is one of the statutory remedies owned by the seller in English law.¹⁹⁸ It was as an equitable right until provided in the Sale of Goods Act 1979. This right had a long history and was confirmed by the House of Lord in 1793.¹⁹⁹ Section 44 provides of Act provides that:

In Subject to this Act, when the buyer of goods becomes insolvent the unpaid seller who has parted with the possession of the goods has the right of stopping them in transit, that is to say, he may resume possession of the goods as long as they are in course of transit, and may retain them until payment or tender of the price.

The seller and the buyer can amend the right of stoppage in transit expressly in their contract of sale, and if there is no explicit agreement concerning this right the statutory right will prevail.²⁰⁰ Together with seller's lien and right of re-sale, these are three proprietary remedies the seller can exercise to

¹⁹⁸ Sale of Goods Act 1979, se. 45- 47.

¹⁹⁹ *Lickbarrow v Mason* (1793) 4 Bro. Parl. Cas. 57. Also see M.Bridge *et al* (ed.), *Benjamin's Sale of Goods*, 8th. Edition, London: Sweet & Maxwell, 2010 at 15-061.

²⁰⁰ *Ibid*.

protect his interests.²⁰¹ However, exercising right of stoppage in transit will not only affect the relation between the seller and the buyer but also between the seller and the carrier, because the latter one is the executant. Nowadays, it is argued that it is less possible for the seller to rely on the stoppage in transit because of high speed of transportation.²⁰² Thus, more and more sellers choose to insert a clause of retention of title²⁰³ into the contract of sale to protect his right of payment from buyer's default or insolvency.

There are several conditions should be satisfied when the seller is exercising the right of stoppage in transit. First, the seller is unpaid.²⁰⁴ Second, the buyer becomes insolvent,²⁰⁵ which is a necessary requirement for stoppage in transit.²⁰⁶ Third, the seller has parted with the possession of the goods regardless whether the title of goods has passed to the buyer or not. The main object of stoppage in transit is that the seller gets back the possession of goods.²⁰⁷ Fourth, the seller has to exercise this right during the transit. The main principle to define "in the transit" is that the goods are neither in possession of the seller nor of the buyer but in possession of "middleman",²⁰⁸ who is independent from the seller and the buyer.²⁰⁹ In other words, if the middleman, e.g. the carrier, is acting as an agent for either party, he is not considered to be independent and as the result, the goods are not in the transit. For example, if the carrier is the agent of the seller, it indicates that the seller has still taken the possession of the goods that can entitle him to exercise seller's lien directly.²¹⁰ On the contrary, if the carrier is the agent of buyer, it is considered that the buyer has taken the

²⁰¹ Ewan McKendrick (ed.), *Sale of Goods*, London, Hong Kong: LLP, 2000 at 9-002.

²⁰² *Ibid*, at 9-023.

²⁰³ Rendition of title clause is one of the methods to exercise the reservation of the right of, which is also deemed as a security for the payment held by the seller. *Ibid*, at 2-079 ~ 2-095.

²⁰⁴ Sale of Goods Act 1979, Chapter 54, se.38(1).

²⁰⁵ Sale of Goods Act 1979, Chapter 54, se.61(4).

²⁰⁶ In occasion of seller's lien and the right of re-sale, the insolvency of the buyer is not the necessary condition.

²⁰⁷ Ewan McKendrick (ed.), *supra* footnote 201, at 9-024.

²⁰⁸ [1876] L.R.2.Ch.App.322

²⁰⁹ Ewan McKendrick (ed.), *supra* footnote 201, at 9-023.

²¹⁰ M.Bridge, *et al* (ed.), *supra* footnote 199, at 15-066. The precondition of exercising lien is the possession of the goods still in the seller's.

possession of goods when the goods are shipped on board, which will terminate the course of transit and deprive the seller's right of stoppage in transit.²¹¹ Thus, the key step is to determine the duration of the transit, in order to examine whether the seller has the right of stoppage in transit or not. In addition, the right of stoppage in transit will not be subject to transfer of the bill of lading to the buyer²¹², but the further transfer will defeat it.²¹³ The right of stoppage in transit is not influenced by the fact that the property in goods has passed to the buyer.²¹⁴ It is held that the seller may withhold the delivery to the buyer if he has the ownership of the goods.²¹⁵ Thus, in English law, the title of goods and the transfer of the bill of lading to the buyer are not obstacles for the seller to exercise his right of stoppage in transit.

The way of exercising the right of stoppage in transit by the seller includes taking actual possession of goods or giving the notice of his claim to the carrier or other bailee in whose possession the goods are.²¹⁶ Once the notice has been given, it is carrier's *obligation* to re-deliver the goods to the seller or to the direction according to the seller, and the seller must bear the expense of such re-delivery.²¹⁷ This obligation of carrier or other bailee of goods is statutory rather than contractual, because there may be no direct connection between them and the seller. In addition, the seller is only entitled to direct the carrier to the place that is agreed in the contract of sale.²¹⁸ Besides the obligation of the carrier, the seller also has duty to take

²¹¹ *Ibid*

²¹² M.Bridge *et al* (ed.), *supra* footnote 199, at 15-067.

²¹³ Ewan McKendrick (ed.), *supra* footnote 201, at 9-038. If the bill of lading has been transferred from the buyer to the sub-buyer, seller's stoppage right is cut.

²¹⁴ M.Bridge *et al* (ed.), *supra* footnote 199, at 15-063. Also see Sale of Goods Act 1979, Chapter 54, se.39 (1).

²¹⁵ *Ibid*.

²¹⁶ Sale of Goods Act 1979, Chapter 54, se.46(1).

²¹⁷ Sale of Goods Act 1979, Chapter 54, se.46(4). And also see *The Tigris* (1863) 32 L.J.P.M & A.97. The carrier must comply with the valid notice given by the seller, so there is no choice for the carrier to be hesitated or reject. If the carrier ignores the notice he will be liable to the seller.

²¹⁸ Ewan McKendrick (ed.), *supra* footnote 201, at 9-036. However, it is still possible to change the direction from the contractual destination if the carrier agrees to. Stoppage in transit is not a final remedy, so it is possible to seller to resell the goods where the new buyer is not at the contractual port. Also see *Booth Steamship Co. Ltd v. Cargo Fleet Iron Co. Ltd* [1916] 2 K.B. 570

the delivery of goods from the carrier.²¹⁹ Thus, it can be concluded that the result of exercising the stoppage in transit assumes obligations both on the carrier and the seller, which are similar to that of the parties to contract of carriage. However, the problems arise here. One is whether exercising stoppage in transit conflicts with right of control or any other rights or remedies. Another one is if the conflicts are the insecurity factors in electronic commerce. Both these two questions will be discussed later.

5.2 Suspension of Performance under CISG and Comparison with Stoppage in Transit

There is also a similar provision in CISG, which provides that seller is entitled to *suspend* his performance under contract of sale.²²⁰ The seller is entitled to stop handing over the goods to the buyer if he has already dispatched the goods, on the evident ground of buyer's anticipatory breach.²²¹ Actually, both seller and buyer are entitled to suspend their performances under the contract of sale.²²² While prevention of handing over the goods to the buyer after dispatch is a special right of the seller, which is considered similar to stoppage in transit in English law.

There are two important issues need to be clarified: when and how for the seller to suspend his performance. First of all, time. In stoppage in transit, the seller has to exercise the right *during the transit*, which means that an independent party that is acting as a bailee of the goods during transport should possess the goods.²²³ The starting point is seller has parted with the possession of the goods and, the ending point is buyer takes the possession of the goods.²²⁴ However, the starting point for seller to suspend his performance is not clear in CISG, which merely stipulates that the seller

²¹⁹ [1916] 2 K.B. 570.

²²⁰ United Nations Convention on Contracts for International Sale of Goods (1980) (CISG), a.71 (2).

²²¹ Alexander von Ziegler, "The right of suspension and stoppage in transit (and notification thereof)", *J.L. & Com* 25 [2005 - 2006] 353 at 363.

²²² CISG, a.71 (1).

²²³ Ewan McKendrick (ed.), *supra* footnote 201, at 9-024

²²⁴ Sale of Goods Act 1979, Chapter 54, se.45 (1).

should know the buyer's anticipatory breach "after dispatched the goods". Usually, it is held that 'upon dispatch, the seller discharges his contractual obligation to "deliver", as the goods have been *entrusted* to carrier for transportation to the buyer...' (Emphasis added)²²⁵ The meaning of "entrusted" here should be understood as the carrier is a bailee of goods in transit and possesses the goods due to the contract of carriage rather than the contract of agency. Thus, it is concluded that if the carrier is not an agent of the seller, the dispatch of goods can be defined as the time when seller has delivered the goods to the carrier. If carrier is the agent of the seller and the seller delivers the goods to him cannot be deemed as dispatched the goods, in which case the seller still can suspend his performance but according to paragraph (1) of Art.71 but not paragraph (2).

The ceasing point is not clarified in CISG either. In stoppage in transit, the goods are not deemed as during the course until the buyer takes the possession of the goods, from which point the seller loses his stoppage in transit.²²⁶ In CISG, it provides that the seller can prevent *handing over* the goods to the buyer. In other words, if the goods have been already handed over to the buyer, the seller is not able to prevent it any more. Alexander von Ziegler explained the phrase of "handing over" in this context as the transfer of possession under the contract of carriage.²²⁷ Thus, Art.71 (2) allows the seller to suspend his performance from the time he delivers the goods to the carrier under the *contract of sale* till the buyer takes the delivery from the carrier under the *contract of carriage*.²²⁸

Secondly, methods. There are two methods for seller to exercise stoppage in transit in common law: taking the possession of the goods or giving the notice to the carrier or the bailee.²²⁹ However, rather than providing specific methods that the seller is entitled to exercise, the last sentence of the Art.71 (2) in CISG explicitly limits the effect of suspension of performance to the

²²⁵ Alexander von Ziegler, *supra* footnote 221, at p366.

²²⁶ Sale of Goods Act 1979, Chapter 54, se.45 (1).

²²⁷ Alexander von Ziegler, *supra* footnote 221, at p.364.

²²⁸ *Ibid.*

²²⁹ Sale of Goods At 1979, Chapter 54, se.46 (1).

seller and the buyer.²³⁰ In fact, in the old Art. 73, it implied that the seller is entitled to give the order to the carrier to stop handing over the goods in transit, which was deleted in the final version of CISG exactly due to this reason.²³¹ Thus, it is regarded that CISG only addresses the “permissibility” but not the “possibility”.²³² On the one hand, it allows the seller to stop handing over the goods to the buyer but does not express that the seller is entitled to notice the carrier. On the other, it is highly possible for the seller to give relevant notice to the carrier in practice but the convention explicitly provides that the suspension affects only between the seller and the buyer. Thus, it only can say that Art 71 of CISG does not impose any obligation on the carrier to comply with any notice from the seller if the seller really does so.²³³

Third, results. As the results of stoppage in transit, the seller should take the delivery of the goods from the carrier or give directions to the carrier as to what is to be done with goods.²³⁴ Besides this, if the carrier has a freight lien over the goods, the seller has the duty to clear up the freight first in order to take the delivery of the goods.²³⁵ In CISG, however, there is no either clear result of suspension of performance by the seller or the clear time limitation on suspension.²³⁶ In Art.71 (3), it says the suspending party should notice the other party that his suspension and continue to perform if the other party provides the adequate assurance. Due to Art.72 (1), one party can also declare the avoidance of the contract, if it is clear that the other party will commit a fundamental breach of the contract before the date of performing the contract.²³⁷ But whether the seller can avoid the contract if the buyer does not offer the assurance of his performance is a question, because suspension of performance of seller means that he may have already

²³⁰ CISG, a.71(2).

²³¹ Caslav Pejovic, “Stoppage in transit and right of control: conflict of rules?”, *Pace Int’L. Rev.* 20 [Spring 2008] 129 at 138.

²³² Alexander von Ziegler, *supra* footnote 221, at p.363.

²³³ Caslav Pejovic, *supra* footnote 231, at p.139.

²³⁴ [1916] 2 K.B. 570.

²³⁵ *Ibid.*

²³⁶ Alexander von Ziegler, *supra* footnote 221, at p.370.

²³⁷ CISG, a.72.

performed, at least part of, the contract. However, no time limitation on suspension by the seller may lead to a factual avoidance of the contract.²³⁸ Assuming that the contract has been avoided, the seller can be released from the future contractual obligation and may claim restitution from the buyer of whatever the seller has supplied or paid under the contract of sale.²³⁹ However, all of these provisions deal with the contractual relationship between the seller and the buyer but not pay attention to the carrier and goods. Is the seller's obligation to take over the goods back from the carrier at loading port? Does he have to pay for the freight for returning? Or if the carrier is unpaid either, does the seller need to pay for the freight if the seller is not the party to the contract of carriage? Who should take the risk of the goods on return? To answer these questions will exceed the scope of this article but more attention need to be drawn here.

In addition, there is a significant distinction between stoppage in transit in English law and suspension of performance of seller in CISG. The former one is a proprietary remedy owned by the seller,²⁴⁰ which means that the seller has the right to control over the goods directly. Besides the stoppage in transit, the seller also has lien and right of re-sale.²⁴¹ But the latter one cannot be defined as a proprietary remedy of the seller according to CISG. Like stoppage in transit is not an end, suspension of performance is not a final step but only a suspension of contractual obligations.²⁴² Seller can use other methods, such as avoidance of contract combined by claiming for the damages to terminate his contractual relationship with the buyer. All these methods are defined as personal remedies owned by the seller,²⁴³ by which the seller can only cover his loss upon buyer's behavior but not upon controlling over the goods. Also due to Art.71, the suspension only relates

²³⁸ Alexander von Ziegler, *supra* footnote 221, at p.370.

²³⁹ CISG, a.81.

²⁴⁰ Ewan McKendrick (ed.), *supra* footnote 201, at 9-001. The remedies the seller is available can be divided into proprietary remedies and the personal remedies.

²⁴¹ *Ibid.* Seller's lien entitles him to keep possession of goods until his interest in contract of sale has been satisfied. The right of re-sale allows the seller to transfer the possession of goods to another buy to get the payment.

²⁴² Alexander von Ziegler, *supra* footnote 221, at p.371.

²⁴³ Ewan McKendrick (ed.), *supra* footnote 201 at 9-052 ~9-087. Personal remedies include the action for the price, a claim in damages, termination of the contract and so on.

to the buyer and the seller. Therefore, it can be concluded that the suspension of performance by the seller is a personal remedy as well, which has the less degree force than the proprietary remedy.²⁴⁴

5.3 The Conflicts Between Stoppage in Transit, Suspension of Performance and Right of Control

Both the right of stoppage in transit in English law and the seller's suspension of performance in CISG are the concepts under sale law and contract of sale. Despite the fact that the seller needs to rely on the carrier to exercise his right, it is a remedy of the seller against the buyer on the ground that buyer is likely to breach the contract fundamentally.²⁴⁵ The difference of these two remedies is that the former one is proprietary remedy but the latter one is personal remedy. As to the right of control, it is an entire concept under transport law and contract of carriage. The controlling party, who is entitled to exercise the right of control, is the only counterparty of carrier during the transit. Right of stoppage in transit contains to give orders or instructions to the carrier.²⁴⁶ Suspension of performance by the seller also implies that the seller needs to notice and instruct carrier in practice, although there is no explicit provision providing this in CISG.²⁴⁷ Right of control also indicates giving the notice to the carrier.²⁴⁸ Moreover, the result of stoppage in transit includes that the seller should take the delivery of the goods and the controlling party is also entitled to take the delivery from the carrier in right of control.²⁴⁹ It can be seen that these three rights are similar to each other. Thus, it is worth discussing the conflicts among stoppage in transit, suspension of performance of seller and right of control.

²⁴⁴ Ewan McKendrick (ed.), *supra* footnote 201, at 9-001.

²⁴⁵ Whatever the stoppage in transit or the suspension of performance, the precondition is that the buyer is becoming insolvent or other behaviors to show that he will not perform the substantial part of contract. Also see CISG, a.71 and Sale of Goods Act 1999, Chapter 54, se.44.

²⁴⁶ Sale of Goods Act 1979, Chapter 54, se.46 (1).

²⁴⁷ CISG, a.71(2).

²⁴⁸ The Rotterdam Rules, a.50 (1).

²⁴⁹ Ewan McKendrick (ed.), *supra* footnote 201, at 9-036. *Booth Steamship Co. Ltd v. Cargo Fleet Iron Co. Ltd* [1916] 2 K.B. 570. Also see The Rotterdam Rules, a.50.

First is the conflict between stoppage in transit and right of control. Due to right of stoppage in transit is a concept in English law, so the underlying legislations here are English law and the Rotterdam Rules, although the latter one is not valid in England right now. In *Booth Steamship Co. Ltd v. Cargo Fleet Iron Co. Ltd.*,²⁵⁰ it was held that the carrier is bound to act upon the notice of stoppage by delivering the goods to, or according to the directions of, the seller. At the same time, the seller is bound to take the delivery of goods or give the direction to the carrier, although he may not be the party to the contract of carriage. The effect of stoppage in transit is not to rescind the contract between the carrier and the buyer or other entitled people, which means that the contract of carriage evidenced or contained in the bill of lading or other transport document between the carrier and the buyer is still valid. However, in Carriage of Goods by Sea Act 1992, it stipulates that the seller will lose his contractual rights, including the right of control as the transferring the bill of lading to the buyer.²⁵¹ Also in Rotterdam Rules, it provides that the right of control can be transferred as the transfer of the transferable transport document or electronic record. If the transport document or electronic record is not transferable, the shipper is the controlling party unless he designate the consignee is the controlling party or transfer the right of control to a named consignee where the document or record needs to be surrendered to obtain the goods.²⁵² The seller may be the shipper according to the terms in the contract of sale. The corresponding to right of control is the carrier's contractual obligation, including complying with the instruction in respect of goods given by the controlling party and so on. It seems that the obligation to the seller's right of stoppage and the one to the controlling part's right of control put the carrier in a dilemma, he should balance the situation of himself both with seller and with the controlling party. However, the obligation of carrier to redelivery the goods to the seller upon the notice stoppage in transit is different from the one to deliver the goods to the controlling party or

²⁵⁰ See [1916] 2 K.B. 570. Also see Sale of Goods Act 1979, Chapter 54, se. 44-46.

²⁵¹ Caslav Pejovic, *supra* footnote 231, at p.142. Also see Carriage of Goods by Sea Act 1992, Chapter 50, a.2 (5).

²⁵² The Rotterdam Rules, a.51.

consignees based on the right of control, because stoppage in transit is a proprietary right but the right of control is a contractual right. Theoretically, the proprietary remedy should directly affect on the goods neither with any interference nor upon anyone's performance. Thus, the role of the carrier in stoppage in transit is helping the seller exercise his proprietary remedy rather than being an obstacle. The reason why the carrier needs to be involved is the nature of the trans-boundary international transaction, where the goods cannot be delivered to the buyer from the seller hands by hands, otherwise the seller could exercise this remedy by himself instead of giving the notice to the carrier. Thus, giving orders to carrier is not asking him to perform his contractual obligation but to help seller fulfill his proprietary remedy. Also from the perspective of rights, stoppage in transit is a proprietary remedy, which should have the priority to the right of control, which is the contractual right.²⁵³ Thus, the proprietary remedy of the seller should be satisfied first. In this case, the carrier should obey the notice of stoppage in transit from the seller without any hesitation,²⁵⁴ and regardless his contractual obligation under the contract of carriage owned to the buyer, although he may be liable to the buyer.

However, the conflict between suspension of performance by the seller and right of control can be more complicated. The applicable rules here are CISG and the Rotterdam Rules. On one hand, the seller has the right to prevent handing over the goods to the buyer under CISG, which may include giving notice to the carrier in practice. On the other, the seller cannot be controlling party to give the instruction to the carrier if the buyer holds the transferable transport document or transferable electronic transport record, which entitles him to instruct carrier under contract of carriage. It is said that '[w]hat the CISG gives the seller with one hand is taken by the other hand – the UNCITRAL Draft'.²⁵⁵ The UNCITRAL Draft here refers to the Rotterdam Rules. Actually, however, this is not the root of conflict. Whether a party can exercise his right or remedy in one legal regime is not

²⁵³ Ewan McKendrick (ed.), *supra* footnote 201, at 9-001.

²⁵⁴ [1916] 2 K.B. 570. It had already set that the carrier must comply with the seller's notice.

²⁵⁵ Caslav Pejovic, *supra* footnote 231, at p.154.

dependent upon that he has the same or similar right under another regime. The legal basis itself is enough for the entitled party to exercise his right. Thus, the argument that the right of control can “facilitate” the stoppage or suspension of performance²⁵⁶ is not proper. The primary reasons causing the conflict are the role of carrier playing in these two rights and the nature of these two rights. In particular, it provides in CISG that, the effect of suspension of performance of the seller limits between the seller and the buyer,²⁵⁷ which means that the carrier is not bound to comply with the notice of stopping handing over the goods to buyer. Moreover, suspension of performance is a personal remedy in CISG, which should be equal to contractual right under the contract of carriage. Meanwhile in Rotterdam Rules, the carrier shall comply with the instructions given by the controlling party otherwise he will be liable for broken of contract.²⁵⁸ In other words, CISG does not express the specific obligation to the carrier to obey the notice from the seller but the Rotterdam Rules clarifies the obligation of the carrier under the contract of carriage and the liability if the carrier fails to do so. In this case, the carrier should comply with the instruction given by the controlling party under the contract of carriage and the Rotterdam Rules rather than following the notice of stoppage given by the seller under the CISG.

Another issue needs to be mentioned here, which is that it also stipulates that the seller can prevent handing over the goods to the buyer even though the buyer holds the document that entitles him to obtain the goods.²⁵⁹ In framework of the Rotterdam Rules, obtaining the goods is not the exclusive right owned by the controlling party that is the holder of the transferable transport document or electronic record but can also be owned by the consignee named in a non-transferable transport document or electronic transport record,²⁶⁰ where the controlling party could be someone else, such

²⁵⁶ G J van der Ziel, *supra* footnote 113, at p.599.

²⁵⁷ CISG, a.71 (2).

²⁵⁸ The Rotterdam Rules, ch.5: Liability of the carrier for loss, damage or delay.

²⁵⁹ CISG, a.71 (2).

²⁶⁰ The Rotterdam Rules, a.1.11 and a.51.1.

as the seller who is also the shipper under the contract of carriage.²⁶¹ If the buyer is the holder of the transferable transport document or electronic record, the result of conflict is the same as the previous paragraph. However, if the buyer, who becomes insolvent, is merely the consignee named in the non-transferable transport document or electronic record but the seller (shipper) remains to be the controlling party in the contract of carriage, he can instruct the carrier according to the right of control in order to suspend his performance under the contract of sale. This condition, in fact, cannot be deemed as the right of control facilitating the suspension of performance either, because the seller is not suspending his performance under the sale law but solely exercising his right of control under the contract of carriage, although the effect of exercising right of control coincides with suspension of performance of contract.

5.4 Stoppage in Transit: A Challenge to Electronic Commerce?

In electronic commerce, the security has the highest priority. Rotterdam Rules offers a legal framework for electronic commerce, especially the innovation of right of control and the legal recognition of the electronic equivalent to the transport document. The right of control is a contractual right under the contract of carriage, which is an abstract contractual right applicable for all kinds transport document and electronic transport record regardless they are transferable or not. In order to guarantee the exclusive control of the electronic record, the carrier's notification system is necessary.²⁶² Only the controlling party who is registered in the system and known by the carrier is entitled to give the instruction to the carrier. Also due to right of control is contractual right under the contract of carriage, the carrier's notification system should only record the parties and information relating to the contract of carriage.

The seller's right of stoppage in transit and the corresponding obligations of carrier was settled down long time ago when the electronic commerce was

²⁶¹ The Rotterdam Rules, a.51. Generally, the shipper is the controlling party.

²⁶² *Supra* Chapter 4 of the thesis.

not popular or even not possible at that time.²⁶³ Also in 1979 Act, there was no provision dealing with the identity of the seller and the format of the notice, which were not but are the problems now. Contemporarily, plenty of things can be conveyed by electronic format and the identification of the user becomes a big problem for protecting all parties' interests. Under the Rotterdam Rules, as analysed above, the carrier should run a system for issuing the electronic transport record and recording the information of the controlling party and transfer of the record. The controlling party will use the password and digital signature to demonstrate himself in order to give the notice to the carrier and verify the transfer to the third party. However, if the seller, who may neither be a party to the contract of carriage nor recorded in the carrier's system, is entitled to give the notice of stoppage upon which the carrier has the absolute obligation to redelivery the goods to or according to the directions of the seller, the situation would be so risky to both the carrier and the controlling party if the identity of the seller has not been verified carefully before giving the notice. Moreover, the target of the notification system is to avoid the problem that more than one party can access the electronic record, which contains the right of control. Although the right of stoppage in transit owned by the seller is a remedy under the sale law, which is different from the right of control under the transport law, the method of exercising these two rights are similar --giving the notices to the carrier. Thus, a non-registered party that owns a high priority right and carrier has absolute obligation to obey his notice, should be a big challenge to the notification system, where the security is the most significant issue.

There are two possible solutions. One is that the seller maintains to be a controlling party in contract of carriage and thus, keeps being registered in carrier's notification system. In this case, it can be said that the right of control *facilitates* the right of stoppage.²⁶⁴ Because as a controlling party, the seller can access carrier's notification system "legally" to give the notice

²⁶³ The *Booth Steamship Co. Ltd v. Cargo Fleet Iron Co. Ltd* took place in 1916.

²⁶⁴ G J van der Ziel, *supra* footnote 113, at p.599.

to the carrier. Moreover, being a holder of the transferable electronic record is also a way to protect seller's interest on the price of goods.²⁶⁵

Another method is based on Art.1 (18), which provides that the information can be recorded in one or more messages issued by the carrier. If the seller is also the shipper to contract of carriage, the carrier can issue an electronic transport record to the seller as the receipt for shipment, the evidence of the contract of carriage on one hand and also a data message containing his right of stoppage in transit under the contract of sale on the other. The former two messages should be recorded in one database in the notification system to which the buyer or the subsequent holders can access if the electronic record is transferable. However, the latter message in aspect of seller's right of stoppage should be recorded in a separate database, which can only be accessible to the seller. But this database should have certain connection with the former one, because it should be able to be locked automatically if the transferable electronic record has been transferred from the buyer to a third party.²⁶⁶

Thus, it can be seen that the right of stoppage in transit of seller is a big challenge to the electronic commerce, but could be curable by technology. The better solution for the seller to protect his interests on payment is probably using reservation of disposal term in contract of sale,²⁶⁷ or being the controlling party under the contract of carriage, which can entitle him to instruct the carrier without any concerns. Contract of sale and contract of carriage are twins in international transactions, which are individuals but also have many connections with each other. The inter-relationships among parties in different contracts can be an eternal topic.

²⁶⁵ Seller keeps being the controlling party in the transferable electronic record is like holding of bill of lading as a guarantee of payment, which can entitle him to control over the goods directly if the buyer cannot pay the price of goods.

²⁶⁶ *Supra*, footnote 213.

²⁶⁷ *Supra*, footnote 203.

6. The Possibility of Introducing The Concept of Right of Control and Electronic Commerce in Chinese legislation

Since Rotterdam Rules has been opened for signature,²⁶⁸ it is time for China to consider whether it is appropriate to adopt the new regime that among other innovations, including debated provisions, on right of control and electronic transport record. Currently, Chinese Maritime Code 1992 is a hybrid regime based on the Hague-Visby Rules and the Hamburg Rules, in which the concept of right of control and legal recognition of electronic transport record did not exist.²⁶⁹ However, the trend of e-commerce cannot be underestimated or reversed, so the domestic legislation should keep up with the pace. The former part of this chapter will examine the existing laws of China to review if China is ready for the new regime.²⁷⁰ Another part of this chapter aims to give suggestions for the future development of Chinese laws with the aspects of right of control and electronic commerce.

6.1 The Existing Chinese Laws

Although Maritime Code 1992 did not introduce the concept of right of control or the usage of electronic record, it does not mean that no other similar ideas exist in Chinese legislation. This part will examine the similar concept to right of control and preliminary for legal recognition of electronic commerce in Chinese legislation.

²⁶⁸ The Rotterdam Rules has been opened for signatures since 23 September 2009. The information of signed states can be found in http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XI-D-8&chapter=11&lang=en. There are 24 countries have signed the convention but only Spain has approved it.

²⁶⁹ China is a party neither to the Hague-Visby Rules nor to the Hamburg Rules.

²⁷⁰ The author will not explore the arguments provided by various groups on whether China should join the Rules or not due to their narrow interests. The political decisions on China's position on the Rules are not considered in this thesis.

6.1.1 Is There Any Concept or Similar One of Right of Control?

In Chinese legal system, there are two laws dealing with contract of carriage or say, contract of transport: The Contract Act of People's Republic of China 1999²⁷¹ and The Maritime Code of People's Republic of China 1992.²⁷² Chapter 17 of Contract Act 1999 is named contract of transport, which includes the provisions not only for contract of carriage of goods but also for transport of people. It defined the contract of transport as a contract in which the carrier transports the passengers or the goods from the discharging place to the appointed place and the passengers, the shipper or the consignee pay for the ticket or freight.²⁷³ The carrier has obligation to transport the passengers or the goods to the appointed place safely and on time.²⁷⁴

There is a big flaw in the definition, which is that it did not define the parties to contract of transport. In the passengers transport contract, the situation is relatively simple. The carrier who offers the service of transport and the passengers who pay for the ticket to get the service are two parties to the contract. However, it is not clear in case of contract of carriage of goods. The carrier, certainly, is one party to the contract, but either the shipper or the consignee is another party, depending upon who pays the freight according to wording of the definition. There is a logic mistake here. No matter in the Hamburg Rules or the Rotterdam Rules,²⁷⁵ the carrier and the shipper is a pair of terms referring to the parties to the contract of carriage. The rule for determining the shipper is if he enters into, or say, signs a contract of carriage with the carrier but not whether he has paid the freight. In other words, paying freights is the contractual duty of the shipper but it cannot be held that the person who pays the freight is the shipper.

²⁷¹ The Contract Act of People's Republic of China 1999, otherwise referred to as Contract Act 1999, came into force on 1st October 1999.

²⁷² The Maritime Code of People's Republic of China 1992, otherwise referred to as Maritime Code 1992, came into force on 1st July 1993.

²⁷³ Contract Act 1999, a.228.

²⁷⁴ Contract Act 1999, a.290.

²⁷⁵ There are definitions of "carrier" and "shipper" in these two conventions but not in the Hague Rules or the Hague-Visby Rules.

There should be a shipper to the contract first and then the contractual duty of the shipper comes. Thus, the “shipper” here is more like consignor who is in charge of delivery of the goods to the carrier and thus, it can be understood that either the consignor or the consignee can be the shipper depending on who pays the freight.

Section 3 of Chapter 17 deals with contract of carriage of goods but which is not only for the carriage of goods by sea but also for all other means of carriage of goods. Thus, the provisions here are general rules. It stipulates that the “shipper” has the obligation to offer the information to the carrier in aspect of the goods, including the name, nature, sort, number and so on, and also the information of consignee, in order to facilitate the carrier to deliver the goods.²⁷⁶

However, Art.308 in this section needs a space here to be examined carefully. It provides that before carriers delivers the goods to the consignee, “shipper” or say consignor may require the carrier to suspend the transport, return the goods, change the discharging point or replace the consignee but should bear the lost of the carrier due to his demands.²⁷⁷ Due to the ambiguousness of this article, it is held that this provision is similar to right of control and right of stoppage in transit at the same time.²⁷⁸ “Before delivery of the goods to the consignee” means the goods are in the course, which is the period for exercising the right of control as well as stoppage in transit.²⁷⁹ However, the scope of rights of the “shipper” are mixed with the right of control and the right of stoppage in transit, which is hard either to understand or to practice.

There are several issues need to be discussed regarding to this article. If it can be considered as a prototype of right of control in Chinese law, the

²⁷⁶ *Ibid*

²⁷⁷ Contract Act 1999, a.308.

²⁷⁸ Liang Zhao, “Research of right of control in carriage of goods by sea”, (2005), *World Shipping*, Vol.26 No.5 at p.30. Also see Caslav Pejovic, *supra* footnote 231, footnote 21. at p.137.

²⁷⁹ *Supra* Chapter 5 of the thesis.

differences from right of control also exist. First one is the entitled party. In regime of right of control, the controlling party is the entitled person, which includes the shipper, the holder of the transferable transport documents or electronic transport record and the consignee.²⁸⁰ However, besides no clear definition of the shipper in Contract Act 1999, it provides that only “shipper”, but not holder of transport document or other parties, is entitled to give such notices to the carrier. A possible reason for missing other probable entitled parties could be that this article is not only for the carriage of goods by sea but also for other types of carriage of goods, while the holder of the transport documents or bills of lading is a peculiarity in carriage of goods by sea. As it was analyzed above, the “shipper” in the context of Contract Act 1999 is not a legal term of *shipper* in carriage contract but more like the consignor. Thus, the entitled party in Art.308 is different from the ones of right of control, where the consignor is excluded from controlling parties in Rotterdam Rules.²⁸¹

Second issue is the scope of this right. On one hand, suspending the transport, returning and redirecting the goods is not within the scope of right of control in Rotterdam Rules but similar to the right of stoppage in transit in English law. On the other hand, the replacement of the consignee can be considered as one specific right of right of control. Right of control in Rotterdam Rules, however, also includes to give notices to carrier in respect of goods, to modify the contract of carriage upon the agreement with the carrier and so on.²⁸² However, in Art.308 of Contract Act 1999 the rights of “shipper” are mixed part of stoppage in transit and part of right of control, which is the biggest unclearness.

Third one is the effect of exercising the rights. Due to there is no clear definition of shipper, thus the “shipper” in context of Art.308 may not be a

²⁸⁰ The Rotterdam Rules, a.1.8, a. 1.10 and a.51. The specific standard of identifying the controlling party depends upon the terms in contract of carriage and the types of transport documents or electronic record.

²⁸¹ First, there is no definition of consignor in The Rotterdam Rules. Second, consignor, whose duty of deliver the goods to carrier, is always provided in other underlying contracts, e.g. in contract of sale, the seller can be consignor. Thus, consignor is not a specialist term in contract of carriage either.

²⁸² The Rotterdam Rules, a.50.1 (a) and a. 56.

real shipper in contract of carriage. If the “shipper” referred to the consignor, who is exclusively entitled to these rights but not a party to contract of carriage, what will be the effect to the consignee, particular who may be a party with the carrier if he has paid the freight?²⁸³ For example, the consignor who has not paid the freight can give notice to the carrier, by which he decided to replace the consignee by another person. In this case the contractual right of consignee who has paid the freight and becomes shipper consequently, cannot be protected by the carriage contract into which he has entered at all. Although it provides that the “shipper” or say the consignor has to bear the lost of the carrier that is caused by following the notice,²⁸⁴ the real shipper’s interests are still exposed to such uncertainty. Moreover, right of control as a contractual right, should be owned by a person who is the party to the contract of carriage or at least, the counterparty of the carrier in transit, how can a person that may be irrelevant to the contract of carriage is entitled to such a right which is similar to contractual rights? Moreover, there is neither explicit obligation for the carrier to obey the notices from “shipper” nor the responsibility of the carrier if he does ignore the notice.²⁸⁵

Fourth issue is relating to right of stoppage in transit, which is a proprietary remedy owned by the seller in sale law.²⁸⁶ Stoppage in transit is a separate concept from right of control or any other contractual rights in transport law and contract of carriage. The unpaid seller is entitled to give notice to the carrier to return or redeliver the goods so that he can protect his interests in price of goods.²⁸⁷ This is a sole concept in sale law. However, the “transplant” failed again in Chinese law. Art.308 provides the right to suspend the transport or to return the goods to the “shipper” in context of contract of carriage. First, the entitled person is the “shipper”, which even

²⁸³ Contract Act 1999, a.288 and the analysis above. Who can become the shipper to the contract with the carrier depending on who pays freight.

²⁸⁴ Contract Act 1999, a.308.

²⁸⁵ *Ibid.* It only provides the rights of the “shipper” but without any obligation of the carrier or result of exercising the rights.

²⁸⁶ Ewan McKendrick (ed.), *supra* footnote 201 at 9-001.

²⁸⁷ Sale of Goods Act 1979, Elizabeth II, Chapter 54, s. 46.

may not be a real shipper in contract of carriage, is not necessarily the seller in contract of sale. Second, stopping the transport and returning the goods are results of exercising the right of stoppage in transit but not the right itself. However, in Contract Act 1999, these are rights of the “shipper”. Third, stoppage in transit has the proprietary feature in English law but in Contract Act 1999, it becomes contractual right. Fourth, this original sale-law concept was set in the transport law. In fact, transport law should only concern the issues in contract of carriage and during the transit, but any other concepts should not be included in frame of transport law. No matter the shipper, who is the party to contract of carriage, is seller or not in contract of sale, the transport law should not have conferred him any right to protect his interests in other contractual relationship.

The last but not the least, the legal principle, which is *lex specialis derogat legi generali*, otherwise referred to as *lex specialis*, should be mentioned here. This doctrine aims to address the relationships between the norms in one legal framework.²⁸⁸ In Chinese legal system, Contract Act 1999 deals with all types of contracts: sale contract, transport contract, loan contract and so on. In the chapter of transport contract, it includes both the passenger transport and carriage of goods. In the latter one, the ways of carriage of goods are included sea, air and lands. Thus, Contract Act 1999 is general rule with aspect of contract of goods by sea. However, in Maritime Code 1992 Chapter 4, there are specific provisions concerning *contract of carriage of goods by sea*. Thus, Maritime Code 1992 is special rule, which has the priority to the Contract Act 1999 in the aspect of carriage of goods by sea due to *lex specialis*. Unfortunately, other than Art.308 in Contract Act 1999 that is confusing, there is no any other similar concept to right of control in Maritime Code 1992. Thus, right of control in the context of contract of carriage of goods is blank in China.

²⁸⁸ Anja Lindross, “Addressing Norm Conflicts in a Fragmented Legal System: The Doctrine of *Lex Specialis*”, *Nordic Journal of International law* 74 [2005] 27–66 at 27.

6.1.2 The Preparation for Electronic Commerce in Chinese Laws

The first step of Chinese law on stipulating the electronic commerce is Contract Act 1999.²⁸⁹ Art.11 provides that 'a written form means a memorandum of contract, letter or data message (including telegram, telex, facsimile, electronic data exchange and electronic mail), etc. which is capable of presenting its contents in a tangible form'.²⁹⁰ Thus, if the contract is signed via data message, the requirement of written form is satisfied.²⁹¹ Also in Maritime Code 1992, it provides that 'the form of contract of carriage of goods by sea can be terminated by the carrier and the shipper. Either oral or written format is valid, except for the charterparty that should be exclusively concluded in written form. Telegram, telex and facsimile have the same effect of written document.'²⁹² In this case, both general rule (Contract Act 1999) and special rule (Maritime Code 1992) have the provisions providing the recognition of the electronic form of contract of carriage of goods. However, in Chapter of Bill of Lading in Maritime Code 1992, there is no relevant provision regarding the electronic equivalent to transport document, thus the meaning of document here should be understood from the traditional angle: transport document merely refers to the paper form.²⁹³

Besides the legal recognition of electronic form of contract, there are still other issues in electronic commerce that the domestic laws shall deal with. In order to provide framework and suggestions to individual jurisdiction, the international society has made several model laws as well as one convention on electronic commerce. They are UNCITRAL Model Law on Electronic Commerce, UNCITRAL Model Law on Electronic Signatures and United Nations Convention on the Use of Electronic Communications in

²⁸⁹ Minyan Wang, "The Impact of Information Technology Development on the Legal Concept - A Particular Examination on the Legal concept of 'Signatures'", *International Journal of Law and Information Technology*, Vol.15, No.3 at p. 268.

²⁹⁰ *Ibid*, footnote 116.

²⁹¹ Contract Act 1999, a.10

²⁹² Maritime Code 1992, a.34

²⁹³ Maritime Code 1992, a.71

International Contracts.²⁹⁴ All these three international regulations aim to facilitate the practice of electronic commerce and to unify the relevant legislation, although the functions and targets of them are not exactly the same.²⁹⁵ In China, the only relevant law specializing in the legal issues of electronic commerce is Electronic Signatures Law of People's of Republic of China, otherwise referred to as Electronic Signatures Law 2005, which based on the Model Law on Electronic Signature and entered into force 1th April 2005.²⁹⁶ It stipulates that digital signature means 'the electronic form of data contained in or attached to a data message shows the identity of the signatory and indicates the signatory's approval about the content of the data message.'²⁹⁷ This definition meets the two main functions of the signatures.²⁹⁸ In Art 3, it also provides that the parties have the liberty to determine whether to use the data message, e-signature or other electronic means as the form of contracts, documents or the legal instruments. However, in paragraph 3 of Art.3 it explicitly excludes the documents or instruments that data message or electronic signature cannot be applied. These exceptional documents include 1) referring to marriage, adoption, inheritance and other personal relationships; 2) assignment of interest on land or other real estate; 3) stoppage in service of heat, water, power and other public services and, 4) any other documents cannot be contained or conveyed in the electronic form according to laws or administrative legislation. Thus, it is submitted that *contract of carriage of goods by sea* can be concluded in electronic form with electronic signature, which is also expressly approved by the Contract Act 1999²⁹⁹ and Maritime Code 1992³⁰⁰. But the problem here is whether the *transport document* belongs to the

²⁹⁴ United Nations Convention on the Use of Electronic Communications in International Contracts, 2005. This convention was adopted on 23 November 2005. Available http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/2005Convention.html Visited on 1st of May.

²⁹⁵ Function and target of model laws is to offer an example for individual country to update their own relating regulations, but they have no legal enforce. Unlikely, the purpose of convention is to bind the contracting country to comply with it.

²⁹⁶ Available at http://news.xinhuanet.com/newscenter/2004-08/28/content_1908927.htm. (Chinese version). Minyan Wang, *supra* footnote 289 at p.269.

²⁹⁷ Electronic Signature Law 2005, a.2.

²⁹⁸ *Supra* footnote 119.

²⁹⁹ Contract Act 1999, a.11.

³⁰⁰ Maritime Code 1992, a.43.

fourth category of exceptions so that cannot be performed in electronic form, although Maritime Code 1992 has no explicit provision forbidding the usage of electronic form on bills of lading.³⁰¹ The safest way for parties to use electronic form of bills of lading is that the maritime law would expressly confer the recognition of electronic transport records, and the possibility of which will be discussed later.

Moreover, the definition of “data message” should draw certain attention here. In paragraph 2 of Art.2 of Electronic Signature Law 2005, it provides that ‘data message mentioned in this law refers to the information created, sent, received or stored by such means as electron, optics, magnetism or the similar means.’ The phrase of “similar means” manifests that the definition is open for future development. Thus, the law also sets the substantial requirement of data message as supplement, which is that ‘any data message can be deemed as meeting legal requirement if it can tangibly demonstrate the information that it contains and can be accessed and checked at any time.’³⁰² Thus, since any data message meets the substantial requirement, it will get recognition by law even if it is not in list of Art.2. Moreover, Electronic Signature Law 2005 also recognizes the evidential effect of data message. It provides that ‘the data message cannot be denied by the court as evidence solely because the information that it contains is created, sent, received or stored by such means as electron, optics, magnetism or the similar means.’³⁰³ But in fact, the way of delivery and storage of data message may affect the authenticity of it.³⁰⁴

Like electronic signature, the Certification Authorities (CAs) regime in electronic commerce cannot be overlooked. The function of CAs is to issue certificates to confirm the link between a signatory and creation data message.³⁰⁵ Thus, the regime of CAs is from the technical aspect to

³⁰¹ All the provisions concerning bills of lading in Maritime Code 1992 used “document”. As analyzed above, the document should be understood as paper form.

³⁰² Electronic Signature Law 2005, a.4.

³⁰³ *Ibid*, a.7.

³⁰⁴ *Ibid*, a.8.

³⁰⁵ *Ibid*, a.2 (b).

guarantee the security of electronic commerce. ‘If electronic signatures need the verification service, the legal registered electronic certificate provider is entitled to offer such service.’³⁰⁶ As a technology supporter, the certificate provider needs to get license issued by the Ministry of Information Industry in order to be qualified.³⁰⁷ Before the enactment of Electronic Signature Law 2005, there were 100 CAs in China and the amount of certificates issued by each of them were between 1000 and 600,000.³⁰⁸ The number of CAs increased to 140 one year after the enactment of Electronic Signature Law 2005, but only 20 of them have got the licenses.³⁰⁹ It shows that the electronic commerce was so prosperous in China but the problem is also obvious, which is that most of CAs offer the electronic certificates services illegally. Thus, the enactment of Electronic Signature Law 2005 is necessary and prompt so that is able to regulate and control the certificate providing service industry. If CAs, of which the function is to offer security service, are out of control and not secure enough, how could this regime guarantee the safety of electronic commerce?

Another merit of Electronic Signature Law 2005 is setting liabilities of relevant parties, which include signatories, certificate providers and official administrators, in order to ensure the safe environment for electronic commerce.³¹⁰ Art.28 that regulates the liability of certificate providers needs to draw more attention here. It provides that signatory or relying party³¹¹ that gets loss due to relying on the service of electronic signature and electronic certificate offered by electronic certificates providers, the electronic certificates providers should compensate the damages to signatory

³⁰⁶ *Ibid*, a.16.

³⁰⁷ *Ibid*, a.18.

³⁰⁸ The information is obtained according to Research Report on the Development of Electronic Certification Service in China 2004. Available at <http://www.eschina.info/Article-Show.asp?ArticleID=599>. Visited on 1st, May.

³⁰⁹ The Symposium on the Development of Electronic Certification Service Industry, 29th of April 2006. Available at <http://www.sxiL.gov.cn/admin/newsshows.asp?id=1002600&chid=100001>. Visited on 1st, May.

³¹⁰ Electronic Signature Law 2005, ch.4: Liability.

³¹¹ “Relying party” is that a person that may act on the basis of a certificate or an electronic signature. Electronic Signature Law 2005, a.34 (2).

or relying party if he cannot prove that he has no fault on service.³¹² The principle here of determining liabilities of CAs is doctrine of *fault presumption*. In procedural law, it is also called the *conservation for burden of proof*. In other words, as a claimant, signatory or relying party, who claims for the damages, only needs to prove that he has got damage and cause of damages is the service offered by the electronic certificate provider (CA). However, as a defendant the electronic certificate provider has to prove that he has no fault in offering the service and if he fails to do so, he has to bear the unfavorable result – compensation for the damages of claimants.

Adoption of this doctrine in Electronic Signature Law 2005 is aiming to protect the security of the electronic commerce, where technology takes a vital position but in most of cases, the signatory and relying party has no idea about any technology issue. Thus, it would be harsh for them to prove faults of CAs during offering the service. Furthermore, signatory or relying party actually has no bargaining advantage on choosing the provider of electronic certificate, which has already been selected by electronic communication or other similar systems to which they accessed. Thus, from both technical and equitable perspectives, the doctrine of fault presumption to determine liability of electronic certificate providers is necessary.

Besides the liability of electronic certificate provider, signatory also will be liable for loss of relying party or electronic certificate providers if he is aware that the signature is not safe but continues using without giving the suffice notices.³¹³ This shows that Electronic Signature Law 2005 intends to demand each party involved in electronic commerce to do their due duty to ensure and keep the electronic environment safe.

Preparedness also needs to be examined with aspect of letter of credit. In Commercial Banking Law of the People's Republic of China 2003,

³¹² Electronic Signature Law 2005, a.28.

³¹³ *Ibid*, a.27.

otherwise referred to as Commercial Banking Law 2003,³¹⁴ it merely provides that the commercial banks are entitled to offer letters of credit service.³¹⁵ There is also Supreme People's Court on the Trial of L/C Disputes the Provisions of Some Problems 2006, which is the only relatively specific regulation concerning letters of credit, is a procedural rule rather than the substantial one. It stipulates that when courts hear disputes on letter of credit, if there is an agreement between parties on applying relevant international usage or custom, the agreement prevails; if there is no such an agreement, Uniform Customs and Practice for Documentary Credits (UCP) and other relevant customs prevail.³¹⁶ Thus, the main substantial rules on letter of credit in China are actually the international customs. In both UCP500 and UCP600, they provide that '[a] document may be signed by handwriting, facsimile signature, perforated signature, stamp, symbol or any other mechanical or electronic method of authentication.'³¹⁷

Theoretically, it is manifested that electronic transport record can be used for letter of credit. Due to Maritime Code 1992 has not adopted electronic transport record as a legal format of document, there is no practice of using electronic transport record in letter of credit in China yet. Solely from the legal perspective, there is permissibility to use electronic record in letter of credit, but technical and practical possibilities are still the problems, which will be examined later.

Generally speaking, Electronic Signature Law 2005 offers a basic legal framework for practice in electronic commerce and recognition of electronic signature, which takes the important position in electronic commerce. Although there are still certain disadvantages in this law if taking a close look, it is a significant step for China to prepare for electronic commerce from legal perspective.

³¹⁴ Commercial Banking Law of the People's Republic of China 2003 came into force on 27th December 2003.

³¹⁵ Commercial Banking Law 2003, a.3 (11).

³¹⁶ The Supreme People's Court on the Trial of L/C Disputes the Provisions of Some Problems 2006, a.2.

³¹⁷ UCP500, a.20 and UCP600, a.3.

6.2 Suggestions for Future Developments of Chinese Laws Concerning Carriage of Goods by Sea and Electronic Commerce

One of the most significant improvements introduced by the Rotterdam Rules is the concept of right of control. Instead of merely focusing on the responsibilities and liabilities, the Rotterdam Rules paid attention to rights of parties. Another important progress of the Rotterdam Rules is explicitly giving the same legal effect of electronic transport records as the traditional paper transport documents. These two main progresses showed in the Rotterdam Rule, an international regime, can be taken as an example and model for Chinese legislation to adopt this new regime.

6.2.1 Adoption of Concept of Right of Control

As analysed in Chapter 6.1.1, there is a hybrid concept with right of control and stoppage in transit provided in Contract Act 1999.³¹⁸ In Maritime Code 1992, however, which is a special regulation in field of carriage of goods by sea, there is no similar provision concerning any specific right that the shipper is entitled to have. The reason for this omission is possibly that the foundation of Maritime Code 1992 is the Hamburg Rules and the Hague-Visby Rules, in which rights of parties were not taken into account. The concept of right of control should not only be understood as an innovation of a contractual right, but also as a preparation for the usage of electronic form of transport documents. Regardless the form of transport document (paper form or electronic form, transferable or non-transferable), right of control is embodied in all types of them. At the same time, using electronic transport record is an important step in electronic commerce regarding that transport documents usually play a main role in international transactions, particular in the payment and finance part. As a basic concept in electronic commerce, adoption of right of control is necessary.

³¹⁸ *Supra* Chapter 6.1.1 of the thesis and Contract Act 1999, a.308.

First step is to extend the meaning of transport documents and abolish the irrelevant standard. In Maritime Code 1992, Section 4 of Chapter 4 is called Transport Document. However, there is only one connotation of transport document: bill of lading. Thus, transport documents under Maritime Code 1992 is the synonym of bills of lading. They are classified into straight bill of lading, order bill of lading and bearer bill of lading and the latter two types are transferable.³¹⁹ Besides the regulations of bills of lading, there is no provision dealing with other types of transport documents, sea waybills for example. Thus, the first step is to expand the meaning of the transport document and to use the standard in Rotterdam Rules: the transferable and the non-transferable but they both can perform functions of receipt of shipment as well as evidence or contain contract of carriage. Only defining the transport documents within the scope of *contract of carriage*, the concept of right of control, which is a contractual right, is meaningful. Sea waybill can perform these two functions, thus it shall be included as the transport documents in Maritime Code. In addition, without using “document of title”, which is beyond the scope of contract of carriage of goods, would not definitely lead the result that transport document could not perform this function. Actually, the transferability of transport documents and electronic transport records can imply the function of document of title.³²⁰

Second step is clarifying and complementing the definitions. Unlike Contract Act 1999, definitions relating to carriage contract were set well in Maritime Code 1992. In Art.42 (3), it provides that shipper refers to the person that enters into the contract with the carrier *or* the person that delivers the goods to the carrier. This definition came from the Hamburg Rules.³²¹ Although the definition of shipper is clearer than that in Contract Act 1999, it would be better to distinguish shipper from consignor. “Consignor” is not a concept under the contract of carriage but merely a describing definition referring to the person who delivers the goods to the

³¹⁹ Maritime Code 1992, a.71.

³²⁰ *Supra* footnote 103.

³²¹ The Hamburg Rules, a.1.3.

carrier. Any party can be the consignor due to other underlying legal relationship. Thus, the definition of shipper in transport law should be limited to the person that enters into the contract of carriage with the carrier.³²² The good point is that definition of “consignee” has already been adopted in Maritime Code 1992, which refers to the person that is entitled to take the delivery.³²³ However, definition of “holder” is still missing, which should be introduced as well in order to identify the controlling party. In the regime of the Rotterdam Rules, the controlling party is either shipper or consignee or holder of the transport document or the electronic transport record. Thus, the comprehensive definitions are necessary for adoption of right of control.

Third step is introduction of right of control. Generally speaking, the whole concept of right of control, including scope of rights, ways of exercising and transferring the rights, effects of exercising right of control provided in the Rotterdam Rules, is so comprehensive that Chinese maritime law could reference the entire idea. In practice, whether being a party to the Rotterdam Rules or not is not an obstacle to use the concept of right of control. China is not a party to any existing conventions on carriage of good by sea, but the regulations of carrier’s responsibility and exemptions in Maritime Code 1992 are based on the Hague Rules;³²⁴ the evidentiary effect of bill of lading, agency of carrier and time bar for claim are based on the Hague-Visby Rules;³²⁵ and the concept of “actual carrier” and shipper’s responsibilities are based on the Hamburg Rules.³²⁶ Thus, using the whole concept of right of control in Rotterdam Rules is acceptable for Chinese maritime law.

Fourth step is to settle the contradictory ideas in other laws. The example here is Art.308 in Contract Act 1999, which provides that “shipper” is entitled to give the notice to the carrier during the transit. To begin with, provided that there is right of control in Maritime Law, which is as special

³²² The Rotterdam Rules, a. 1.8.

³²³ Maritime Code 1992, a.42 (4).

³²⁴ Yuzhuo Si, *Maritime Law*, Beijing: Law Press, 2007 at p.156.

³²⁵ *Ibid*, at p.162.

³²⁶ *Ibid*, at p.166.

rule in contract of carriage of goods, any other similar or contradictory concepts can be and shall be deleted from general rules. Thus, part of Art.308 that is similar to right of right, such as changing the discharging port and replacing the consignee should be taken away. Secondly, this provision is also deemed like seller's right of stoppage in transit. So, the rest part of this provision that includes suspending the transport and returning the goods can be retained but provided in sale law instead of in transport law. Although giving notices to the carrier by the seller in sale law may conflict with exercising right of control in transport law to some extent, stoppage in transit has its own priority regarding to its proprietary feature.³²⁷ Thus, the conflict between stoppage in transit and right of control can be solved if the sale law has appropriate and clear provisions on seller's remedies. In addition, there is also view that stoppage in transit is obsolete and sellers now just add the retention of title clause in contract of sale in order to protect their interest.³²⁸ Thus, another option is to delete the whole provision of Art.308 from Contract Act 1999 and leave this issue to the parties' liberty, freedom of contract and right of control.

Furthermore, the issue of suspension of performance, which could also conflict with right of control, needs to pay attention as well. There is a provision in Contract Act 1999, which is like Art.71 of CISG, stipulating that one party is entitled to suspend performance on the adequate grounds that the other party is unable to perform the contract.³²⁹ However, there are several differences between this article and Art.71 of CISG. First, only the party that shall perform first has this right according to Contract Act 1999.³³⁰ Second, this article is in the general provisions but not in the chapter specially dealing with sale contract.³³¹ In other words, there is no special right for seller to suspend his performance after delivery, which is like Art.71 (2) of CISG. On the contrary, in Art.141 of Contract Act 1999 it

³²⁷ The conflict between stoppage in transit and the right of control is discussed in Chapter 5.3 of this thesis.

³²⁸ Ewan McKendrick (ed.), *supra* footnote 201, at 9-023.

³²⁹ Contract Act 1999, a.68.

³³⁰ *Ibid.*

³³¹ From a.1 to a. 129 are provisions of General Rules in Contract Act 1999.

provides if there is no any specific agreement on where to delivery of goods between the seller and the buyer and it is deemed as delivery of goods to the buyer when the seller has delivered the goods to the first carrier. In contract of sale, delivery of goods to buyer is seller's duty,³³² thus it is held that the seller has already *finished* his performance after delivery the goods to the carrier. In other words, in current context of Contract Act 1999, seller is not able to suspend his performance after the goods shipped on board.

Thus, it is considered that, firstly, right of control shall be added in contract of carriage of goods as a contractual right in Maritime Code. **Second**, right of stoppage in transit is either specially provided in contract of sale as a proprietary remedy owned by seller or no provision dealing with it at all. Third, right of suspension can be retained in the general rules for all kinds of contract with conditions: neither any the time nor any parties are entitled to this remedy but merely the first performing party that has not finished his performance yet is able to suspend the performance.

6.2.2 Legal Recognition of Electronic Commerce From Legal and Pratical Prespectives

(a) Maritime Law

Besides introduction of right of control, the legal recognition of electronic transport record also needs to be adopted in maritime law. In Maritime Code, there should be a clear provision providing that electronic transport record has the same effect as its paper alternatives. The precondition is to define the electronic record and electronic communication properly. In the Rotterdam Rules and Electronic Signature Law 2005, the definition of "electronic communication" or "data message" both includes two elements: the measures and the accessibility.³³³ Moreover, in order to be compatible with the future development, the phrase of "similar means" is used in the

³³² Contract Act 1999, a.135.

³³³ Alexander von Ziegler, Johan Schelin, Stefano Zunarelli, *supra* footnote 73 at p.56. Also see The Rotterdam Rules, a.1 (17) and Electronic Signature Law 2005, a.2.2 and a.4.

Rotterdam Rules and Electronic Signature Law 2005 to keep the definition open.³³⁴ Thus, in order to keep the consistency between laws, Maritime Code should adopt or refer to the definition in Electronic Signature Law 2005.

Regarding definition of electronic transport records, the one provided in the Rotterdam Rules can be referenced.³³⁵ Besides the means of electronic record generated, sent and stored are different from paper transport documents, the functions of which should be the same as paper form: evidence the carrier's receipt of the goods and evidence or contain the contract of carriage.³³⁶ The legal effect of electronic record shall be expressed in Maritime Code in order to avoid any dispute or doubt of it either between the parties or between the parties and courts. Due to Maritime Code would expand the scope of transport documents and abandon the standard of document of title,³³⁷ the electronic alternatives should also be divided into transferable and non-transferable. The formulating standard for distinguish these two types of records could be applied. The term of "to order" or "negotiable" or other wordings showing the transferability of record should be used and at the same, there should not be explicit term showing "non-negotiable" or "not negotiable".³³⁸ Both of these two types are qualified to perform two functions.

Whether to use the electronic transport record and which electronic communication or which method shall be used is at parties' liberty, but Maritime Code needs to provide that the contract of carriage is valid only if the terms of usage electronic record meet certain conditions, which is like Art.9 of Rotterdam Rules.

Another issue is adoption of notification system. In Rotterdam Rules, it is provided that transfer of right of control is valid to the carrier upon the

³³⁴ *Ibid.*

³³⁵ The Rotterdam Rules, a.1 (18).

³³⁶ *Ibid.*

³³⁷ *Supra* Chapter 6.2.1.

³³⁸ The Rotterdam Rules, a.1 (19).

notification of transfer given to him.³³⁹ As analyzed above,³⁴⁰ carrier is the issuer of electronic record, he has to perform his contractual duty under contract of carriage and he needs to be notified when contractual right transferred. Thus, the carrier gets involved in each important link during transit. Thus, a notification system run by the carrier, which services to issue the electronic transport record and to record each transfer of right of control and so on, could be the best solution. As a result, Maritime Code shall also give clear legal recognition to notification system, even if there is no certain provision regarding notification system in Rotterdam Rules. Moreover, as a private electronic communication, notification system also has to comply with other relevant laws, such as Electronic Signature Law 2005. For example, the carrier is required to apply for license of certificate authority to Ministry of Information Industry if he needs to run his own Certification Authority according to Art.18 of Electronic Signature Law 2005.³⁴¹

In general, the Maritime Code, particularly, shall recognize the legal effect of electronic record and notification system of carrier. As to other issues relating to technology, Maritime Code, at least, needs to keep consistent with Electronic Signature Law 2005 and other relevant laws.

(b) Mortgage Law and Property Law

In the first place, there are differences between pledge and hypothec in Chinese legal regime. Generally speaking, pledge is applicable to movable properties,³⁴² but hypothec, usually, is applicable to immovable property.³⁴³ Some civil rights can also be object of pledge, including bills of exchange, stocks, bills of lading, warehouse bills, checks, transferable intellectual properties and receivables.³⁴⁴ Thus, bills of lading, as document of title, are

³³⁹ The Rotterdam Rules, a.51.

³⁴⁰ See Chapter 4.3 of this thesis.

³⁴¹ Electronic Signature Law 2005, a.18

³⁴² Pledge is divided into property pledge and right pledge. See Property Law of the People's Republic of China (Property Law 2007), a.223 and Mortgage Law of the People's Republic of China (Mortgage Law 1995), a.75

³⁴³ Property Law 2007, a.180. It also provides that the mortgage is applicable to vehicles and ongoing aircrafts and buildings.

³⁴⁴ Property Law 2007, a.223 and Mortgage Law 1995, a.75

qualified to pledge. Another distinguish between pledge and hypothec is the different procedures of setting rights. To establish a pledge, besides signing a pledge contract between the pledgor and pledgee, transfer of property or document representing the right is the legal procedure to validate the pledge.³⁴⁵ In some cases of pledging rights, register in certain official is compulsory to validate pledge rather than transfer of documents, such as pledge intellectual properties, stocks or receivables.³⁴⁶ However in setting hypothec, the general rule is register in order to validate the hypothec.³⁴⁷ But in hypothec of some properties, contract of hypothec alone is able to validate the hypothec but cannot challenge the third party in good faith unless registry.³⁴⁸ In addition, the relation between Property Law 2007 and Mortgage Law 1995 is supplementary with each other due to doctrine of *lex posterior derogat legi priori* and *lex specialis*.³⁴⁹

Currently, due to there is no provision in Maritime Code 1992 recognizing the electronic equivalent of bills of lading, the method of setting pledge on bills of lading is transfer of the paper documents together with the pledge contract.³⁵⁰ However, Property Law and Mortgage Law still need to be ready for adopting transferable electronic transport record as legal object of pledge. Setting pledge on stocks and shares can be used as example. In practice, there is no usage of paper-based stocks or share any more in the modern world. Consequently, in both Mortgage Law and Property Law, it provides that pledge of stocks and shares becomes effective upon the registry of pledge in Securities Registration and Clearing Institutions.³⁵¹ Due to Securities Law 2006³⁵², Securities Registration and Clearing

³⁴⁵ Property Law 2007, a.224 and Mortgage Law 1995, a.76

³⁴⁶ Property Law 2007, a.226, a.227 and a.228 and Mortgage Law 1995, a. 78 and a.79

³⁴⁷ Property Law 2007, a.187

³⁴⁸ Property Law 2007, a.188 and a.189

³⁴⁹ Legislation Law of the People's Republic of China, 2000, a.83. Property Law 2007 is a new comparing with Mortgage Law 1995, which means that the regulation of Property Law 2007 dealing with the same object as Mortgage Law 1995 will prevail. At the same time, Mortgage Law 1995 is special rule on pledge and hypothec, so certain specific provision in Mortgage Law 1995 will prevail.

³⁵⁰ Property Law 2007, a.224 and Mortgage Law 1995, a.76

³⁵¹ Property Law 2007, a.226 and Mortgage Law 1995, a.78

³⁵² Securities law of the People's Republic of China, otherwise referred to as Securities Law 2006, came into force on 1st June 2006.

Institution is a non-profit *legal person* that provides centralized registration, custody and settlement services for securities transactions.³⁵³ Moreover, establishment of a securities registration and clearing institution shall be subject to the approval of the securities regulatory authority under the State Council.³⁵⁴ Due to the functions of this institution, being a member of it is not necessary because the information registered in it includes the proprietary right, to which is able be accessed by public. In other words, the institution perform parts functions of governmental registry regime on proprietary right, thus the institution shall be open, neutral and non-profit.

If the electronic transport record could get legal recognition by Maritime Code and the transferable ones still contain the function of document of title, Property Law and Mortgage Law should adjust the provisions to the new tendency. Specifically, Property Law and Mortgage Law shall add that transferable electronic transport record is a right that is qualified to pledge and that method of establishment pledge on electronic record is to register in certain institutes. As to the model of registry regime, the Securities Registration and Clearing Institutions for registry of stocks and shares is one option: an independent institution from the carrier, the controlling party and the pledgor but subject to certain government department. Another opinion is that certain government department itself offers this registry system for pledge on electronic transport record, which is like the provisions in Mortgage Law.³⁵⁵ The details of how the institutions and departments work, however, shall be provided in Maritime Law. Thus, besides notification system that shall be provided in Maritime Code, registry system for pledge on electronic transport record shall be taken into account as well. Property Law and Mortgage Law aim to give legal recognition of electronic transport record as a qualified right that could be pledged.

³⁵³ Securities Law 2006, a. 155

³⁵⁴ *Ibid.*

³⁵⁵ Mortgage Law 1995, a.42. It provides different governmental departments that are in charge of registering various hypothecs on different properties from paragraph 1 to 5.

(c) Letters of Credit

Provided that Maritime Code adopted concept of right of control and electronic transport records, the more important issue is in technical part for banks using electronic transport record for letter of credit. On one hand, banks that are involved in letter of credit, including the opening bank, negotiating bank, paying bank and so on, shall take the responsibilities on checking the information in documents according to UCP and other international customs. On the other hand, banks also become holders of transport document in order to protect his interests after paying the price of goods. Once the electronic transport record is recognized by maritime law, the procedure of letters of credit can become like this: first, the relevant bank has to access electronic transport record in order to check the information in record and to make sure that it is consistent with the instructions given by the buyer. Secondly, the bank shall pay the payment to the seller if it is consistent, which will result in the bank becoming the holder of electronic record. Both these two steps need technical support and it is difficult to fulfill to some extent.

The TradeCard System³⁵⁶ might be treated as an attempt, which aims to perform all the functions of letter of credit without paper.³⁵⁷ To begin with, the buyer log on TradeCard to issue an electronic purchase order, like the instruction that buyer gives to the opening bank in paper letter of credit, and it is also sent to the seller by system afterwards. So when cargos shipped on board, the documents are presented electronically to TradeCard to be compared with the original purchase order. Once compliance is met, the payments of price are electronically transferred from buyer's account to seller's account.³⁵⁸ However, the TradeCard, which aims to deal with the letter of credit and tries to build connections among banks, is a separate regime from carrier's notification system. If this independent system coexists with the notification system, the problems could become more

³⁵⁶ TradeCard was found by The World Trade Centers Association in 1994. See Marek Dubovec, *supra* footnote 2, at p.456.

³⁵⁷ *Ibid.*

³⁵⁸ *Ibid.*

complicated. Because all electronic information recorded in carrier's notification system needs to be sent to this system again, while transfer of data information can raise the risk of unauthentic.

Thus, for Chinese legal system and practice, the better choice might be that the carrier's notification systems is the only system but within it, the data message is saved in different platforms and can be accessed by different roles.³⁵⁹ For example, when a bank is in charge of checking the electronic record in order to make payment, it is merely able to log on the notification system and access the electronic record as a bank but not as a holder of it. If the electronic record accords with instruction given by the buyer and the relevant bank has already made the payment, the paying bank, as a result, becomes the holder of the electronic record at this time and is entitled to log on the notification system as a controlling party to exercise right of control in order to protect his interests. When bank is in charge of checking electronic record, the applicable rule is international custom on letter of credit rather than transport law or contract of carriage. The important point here needs to bury in mind is that the party who is entitled to log on the notification system and access electronic record does not always have to be the controlling party. Also not all access to information accounts to position of holding the record. In order to become the controlling party, the notice of *transfer* of right of control given to the carrier is necessary.

(d) Civil Procedure Law

The issue in procedure law is to recognize the evidentiary effect of electronic form. There are seven categories recognized as legal form of evidence in the Civil Procedural Law of the Peoples Republic of China:³⁶⁰

(1) Documentary evidence; (2) Material evidence; (3) Video and audio material; (4) Testimony of witnesses; (5) Statement by litigants; (6)

³⁵⁹ This technical possibility is also confirmed by the Rotterdam Rules. See the Rotterdam Rules, a.1.18, which provides that the information can be stored in more than one message.

³⁶⁰ Civil Procedural Law of the Peoples Republic of China, otherwise referred to Civil Procedure Law 2008, came into force 1st April 2008.

Conclusion of expert corroborations; and (7) Records of inspection.³⁶¹ The function of “document evidence” is to prove claim by the content of it, which is different from material evidence, of which the shape, construction or other physical features are utilized by litigants to prove their claims.

The question here is whether the documentary evidence must be in paper form. Some of electronic information can be transformed into paper media, such as email that can be printed out. However, some other method of recording information may not be transformed into paper but the content of which is still accessible through certain measures.³⁶² In fact, in Electronic Signature Law 2005, it stipulates that ‘the data message cannot be denied by the court as evidence solely because the information it is created, sent, received or stored by such means as electron, optics, magnetism or the similar means.’³⁶³ This provision is from the side to recognize the evidentiary effect of electronic or other similar forms of information but not clear enough. As the specialist regulation, however, Civil Procedure Law 2008 has no relevant provision dealing with the form of documentary evidence on one hand. On the other hand, provided that the electronic form can be used as documentary evidence, how is the effective of it? How to guarantee the authenticity of it? Thus, in order to avoid any conflicts among laws and to provide the certainty for both judges and parties, Civil Procedure Law shall recognize the evidentiary effect of electronic form on the positive side. In addition, it shall also provide clearly that the content of information is the most important point and as long as it can be accessible properly and authentically, it could be used as documentary evidence without any prejudice.

³⁶¹ Civil Procedure Law 2008, a.63

³⁶² Both in Electronic Signature Law 2005 and the Rotterdam Rules, it provides that the information created, sent and stored by electronic, optical, digital or similar means. The electronic information may be transformed into document but other means of information may be not.

³⁶³ Electronic Signature Law 2005, a.7

(e) Electronic Commerce Law

The last but not the least, enactment of Electronic Commerce Law shall be turned onto the schedule. It is actually but with low pace. There was a conference regarding drafting Electronic Commerce Law held in Guangzhou 2001.³⁶⁴ In the conference, the experts held the importance of enactment of Electronic Commerce Law and China should have it as soon as possible.³⁶⁵ However, more than a decade has past but there is still no Electronic Commerce Law in China, although the Electronic Signature Law has came into force in 2005.

The difference between the Electronic Signature Law and Electronic Commerce Law is obvious. The former one is a special rule and particularly settles electronic signature and typical technical issues relating to it. The latter one, however, is a general rule regarding to the entire electronic commerce and deal with all relevant issues. Two model laws issued by UNCITRAL can be illustrated here. The definition of “commercial”, which is merely provided in Model Law on Electronic Commerce, includes all relationships of a commercial nature and thus, carriage of goods by sea is one of them.³⁶⁶ In other words, provisions of Electronic Commerce can be applicable to carriage of goods by sea that includes the contract of carriage, transport document and other relating issues. Besides from maritime perspective, the law of electronic commerce also gives legal recognition of electronic means in carriage of goods by sea.

Another example is definition of “writing”, which is only provided in Article 6 of Model Law on Electronic Commerce but not in Model Law on Electronic Signature. In this provision, it explicitly provides that “[w]here the law requires information to be in writing, that requirement is met by a data message if the information contained therein is accessible so as to be

³⁶⁴ See the Electronic business law of the People's Republic of China (demonstration method) Senior Seminar and Reviewed. Available on

<http://review.jcrb.com.cn/ournews/asp/readNews.asp?id=24208>. Visited on

³⁶⁵ *Ibid.*

³⁶⁶ Model Law on Electronic Commerce, a.1.4.

usable for subsequent reference.’ This definition not only defines the data message but also offers a clue for other laws, such as for the part regarding to evidences in civil procedure law. If China could enact Electronic Commerce Law based on this model law, the problem discussed in previous paragraphs could be solved. In other words, Electronic Signature Law 2005 cannot substitute the Electronic Commerce Law, which shall be more comprehensive and general. In addition, Electronic Signature Law 2005 alone is not enough to handle all the issues in the entire electronic commerce.

Furthermore, in international level, Model Law on Electronic Commerce emerged earlier than that on Electronic Signature.³⁶⁷ As a special legislation, the Model Law on Electronic Signature is “fully consistent with the UNCITRAL Model Law on Electronic Commerce” and based on the latter one.³⁶⁸ Thus, the correct order of drafting laws should be that the general rule comes first and then the special rule. However, it is vice versa in China. The Electronic Signature Law, as special rule, drafted and came first. Nevertheless, the bright side is that if Chines Electronic Commerce Law can adopt the Model Law on Electronic Commerce and base on it, the potential conflicts between it and the existing Electronic Signature Law 2005 will be avoided effectively. Because the latter one is based on the Model Law on Electronic Signature, which is *fully* consistent with the Model Law on Electronic Commerce.³⁶⁹

Hence, in order to harmonize not only among various electronic laws but also between the electronic laws and other laws relating to electronic commerce, it is necessary for China to draft Electronic Commerce Law as soon as possible.

³⁶⁷ The former one was drafted in 1997 and the latter one was drafted in 2001.

³⁶⁸ *Guide to Enactment of the UNCITRAL Model Law on Electronic Signatures 2001*: IV. Main features of the Model Law, B. Relationship with the UNCITRAL Model Law on Electronic Commerce.

³⁶⁹ *Ibid.*

6.3 Continue the Hybrid System or Become Party to the Rotterdam Rules

Although exploring the possibility of China to ratify the Rotterdam Rules is out of the scope of this thesis, it is necessary to examine the advantages and the disadvantages of either to continue the hybrid regime or to be a party to the Rules.

The Rotterdam Rules, as an international convention, the original object is unification. It ‘...is convinced that the adoption of uniform rules to modernize and harmonize the rules that govern the international carriage of goods involving a sea leg would enhance legal certainty, improve efficiency, and commercial predictability in the international carriage of goods and reduce legal obstacles to the flow of international trade among all states.’³⁷⁰

The unification issue is especially important in the international business industry under electronic commerce context. As analyzed above, one of the biggest obstacles in electronic commerce is the lack of legal recognition.

Due to the trans-boundary nature of international business, only one jurisdiction that is involved into the transaction provides the legal recognition for electronic means in commerce is far from enough. Uniform rules on electronic commerce are significant and necessary to some extent. Thus, if China is a party to the Rules, despite how possible the situation could be, it would both help the Rules achieve their goal and China join in the uniform legislation governing the electronic commerce, the field which needs to be unified urgently.

If China stays out from the Rules but only incorporates certain provisions dealing with electronic commerce into national law, the Chinese legislation will benefit from it as well. From the domestic law perspective, there will be a comprehensive legal regime governing electronic commerce. Although it

³⁷⁰ Nazery Khalid and CAPT. Rakish Suppiah, “The Rotterdam Rules: Catalyst for trade or cumbersome convention”, (2010), *Marit. Pol. MGMT.*, VOL. 37, NO. 4, at 448.

is not helpful for unifying the laws, electronic commerce itself is a so sensitive and fragile field that requires laws to deal with.

7. Summary and Conclusion

Using electronic method to do business is an irreversible tendency that needs to attract more attention from both legal and practical perspectives. This new fashion will definitely go faster and better if laws and technology support more. The developments of technology are a part of human beings' evolutions, which actually take place every minute without legal recognition or even our notice. Thus, most of the time, technology goes faster than laws one step ahead. However, laws may take more value than technology in electronic commerce, because which can facilitate and maximize the application of the developments of technology.

In carriage of goods by sea, the situation of electronic commerce is the same: developments of laws are slower than that of practice. Fortunately, this issue has drawn enough attention now to change the situation. Both from international and national level, the laws drafted for e-commerce start to be enacted gradually. The Rotterdam Rules is a remarkable example for this issue, in which the right of control and recognition of electronic transport records are deemed as two significant improvements.

This thesis tries to answer some questions relating to the right of control and electronic transport records that are proposed in Introduction and to give advice to China, where I am from. Here is to summarize the answers and reasoning.

First, what are the functions and features of bills of lading? There are three functions of bills of lading that are widely known, receipt of shipment, evidenced or contained the contract of carriage and the document of title. The most important features of bills of lading, which are related to the document of title function, are transferability and the exclusive control over the goods. The transferability can be understood as a symbol of document of title and the exclusive control over the goods is considered as proprietary

rights the bill of lading embodied. Is there any possibility for bills of lading to have electronic forms? What are problems in this duplicating procedure? It is possible to replicate bills of lading into electronic forms and actually, there have been many attempts taking place. However, the document of title function is the obstacle when transforming bills of lading into electronic alternatives. Moreover, the lack of legal effect of electronic forms of bills of lading is another problem influencing the development of electronic commerce.

Second, what are electronic transport records in the Rotterdam Rules? What are the nature and characters of them? What is the right of control in the Rotterdam Rules? What is the relationship between the right of control and the electronic transport records? Electronic transport records, in short, is data information that can perform the same functions of transport document regarding to the Rules. The main character of them, which differs from the transport documents, is their format. The functions of electronic records are mirrored to those of transport documents.³⁷¹ The nature of electronic transport record is that they are provided by the Rules with the same legal effect as the transport documents.

Due to Rotterdam Rules, right of control means ‘the right under the contract of carriage to give the carrier instructions in respect of the goods’.³⁷² First, right of control is a contractual right and its basis is contract of carriage of goods. Second, the object of right of control is the carrier rather than goods. Third, the way of exercising the right of control is to give instructions to the carrier. The most important nature of right of control is that it is contractual right under contract of carriage but irrelevant to document of title or other proprietary rights.

The relationship between the electronic transport records and the right of control can be understood better under the context of electronic commerce.

³⁷¹ Manuel Alba, *supra* footnote 80, at p.397.

³⁷² The Rotterdam Rules, a.1.12.

Although the electronic transport record is intangible, it still has the format - data information. Thus, the recognition of electronic transport records is to define and to govern electronic commerce from the formal perspective. However, besides the format, the substance is more important, which can be understood as the concept of right of control. In electronic commerce, format is not necessary anymore.³⁷³ Thus, apart from defining electronic commerce from the formal level, it is more significant to govern it from the substantial level, which results in the adoption of right of control. Right of control can be embodied in the electronic transport record, but also can exist independently without attaching to any format.

The third question is if there is any similar concept to right of control and what the common points and difference are between them and right of control. The answer here is positive. In English law, there is a concept named stoppage in transit, which is a proprietary remedy owned by the seller to protect his interests on price. The way of exercising stoppage in transit is similar to right of control: giving notices to the carrier.³⁷⁴ Also in CISG, there is a special suspension of performance by the seller after dispatching the goods.³⁷⁵ It only provides that the seller is entitled to prevent handing over the goods to the buyer without stipulating any specific methods on how to prevent, although the seller may give notice to the carrier in practice. The common point of these three rights is giving notices to carrier when the goods are in his possession. The differences are obvious as well. According to proprietary feature of stoppage in transit, carrier has obligation to comply with the notice of stoppage from the seller. In other words, stoppage in transit has priority to right of control. As a contractual right, the right of control is binding between the controlling party and the carrier. So complying notice of right of control is contractual obligation of the carrier under contract of carriage. However, CISG did not impose any obligation to carrier to obey seller's suspension notice. Thus, the right of control has the priority to suspension of performance by the seller.

³⁷³ *Supra* footnote 137.

³⁷⁴ Sale of Goods Act 1979, Chapter 52, se.46.

³⁷⁵ CISG, a.71.

Fourth, why do registry systems exist? Can they work within the regime of the Rotterdam Rules? Is there other alternative to the registry system? How does it work? The main reason for the existence of registry system is to register the proprietary right embodied in bills of lading and to guarantee the exclusive control over the goods of the holder. It was a consequence of replication bills of lading to electronic forms. Due to the Rules do not adopt the document of title function on either transport documents or electronic transport records, the original object of registry systems – register the proprietary right cannot be achieved. The Rules mainly focus on the contract of carriage and contractual rights, notification systems – a private systems run by the carrier can be a better alternative to registry systems.

Fifth, is there any possibility for China to adopt right of control and electronic transports record, and what improvements in legislation need to be done in legislation? There are possibilities for China to adopt the new regime, because some preparations have been made in Chinese laws. First of all, there is a concept in Contract Act 1999 providing “shipper” is entitled to give the notice to carrier to stop the transport, to return the goods, to change the discharging port and to replace the consignee by other persons. As analysed above, this definition is a hybrid one with stoppage in transit and right of control, but is too awkward to apply. In order to correct this provision, it should be the best chance to adopt the concept of right of control in transport law. Meanwhile, it is better to add the right of stoppage in transit in sale law. Alternatively, it is also acceptable to delete this provision from contract law and leaving this issue to freedom of contract and liberties of parties. Secondly, Electronic Signature Law came into force in 2005, which is good news and first step in China for introducing the electronic commerce.

In order to build a comprehensive legal system for electronic transport records in carriage of goods field and the entire electronic commerce, other modulations are necessary. To begin with, the clear legal recognition of transferable electronic transport records should be set in Maritime Code.

Second, property laws should admit the collateral value of transferable transport records. Thus, Mortgage Law and Property Law shall offer legal recognition of electronic record as an object of pledge and adjust the method to pledge it.

Third, banks need to have suitable reactions for adopting electronic transport records in letters of credit, which shall be paid attention more from the technical perspective, because it has been prepared from legal side. UCP 500 and UCP 600, which are the substantial applicable rules on letter of credit in China, have already given the recognition of electronic form of transport documents used in letter of credit from legal perspective. This part needs technical support and cooperation with carrier's notification system.

In addition, the procedural law needs to give legal evidentiary effect to electronic transport records clearly, although there is a relevant provision in Electronic Signature Law 2005, which is not clear and practical enough.³⁷⁶

The most important step is to draft Electronic Commerce Law that aims to deal with general issues in electronic commerce, otherwise Chinese legal system on electronic commerce will neither be comprehensive nor adequate to cope with more complicated issues that may happen in the future.

At the end, there are both advantages and disadvantages for China to continue the current hybrid maritime regime, but any discussion concerning whether China should be a party to the Rules is out of the scope of this thesis. If China keeps the hybrid regime and absorbs provisions on electronic commerce from the Rules, at least, it is helpful to China to build up the domestic regulations on the relevant field.

³⁷⁶ Electronic Signature Law 2005, a.3.

Supplement

Rotterdam Rules

Chapter 1

General provision

Article 1. Definitions

10. “Holder” means:

(a) A person that is in possession of a negotiable transport document; and (i) if the document is an order document, is identified in it as the shipper or the consignee, or is the person to which the document is duly endorsed; or (ii) if the document is a blank endorsed order document or bearer document, is the bearer thereof; or

(b) The person to which a negotiable electronic transport record has been issued or transferred in accordance with the procedures referred to in article 9, paragraph 1.

11. “Consignee” means a person entitled to delivery of the goods under a contract of carriage or a transport document or electronic transport record.

12. “Right of control” of the goods means the right under the contract of carriage to give the carrier instructions in respect of the goods in accordance with chapter 10.

13. “Controlling party” means the person that pursuant to article 51 is entitled to exercise the right of control.

17. “Electronic communication” means information generated, sent, received or stored by electronic, optical, digital or similar means with the result that the information communicated is accessible so as to be usable for subsequent reference.

18. “Electronic transport record” means information in one or more messages issued by electronic communication under a contract of carriage

by a carrier, including information logically associated with the electronic transport record by attachments or otherwise linked to the electronic transport record contemporaneously with or subsequent to its issue by the carrier, so as to become part of the electronic transport record, that:

- (a) Evidences the carrier's or a performing party's receipt of goods under a contract of carriage; and
- (b) Evidences or contains a contract of carriage.

19. "Negotiable electronic transport record" means an electronic transport record:

- (a) That indicates, by wording such as "to order", or "negotiable", or other appropriate wording recognized as having the same effect by the law applicable to the record, that the goods have been consigned to the order of the shipper or to the order of the consignee, and is not explicitly stated as being "non-negotiable" or "not negotiable"; and
- (b) The use of which meets the requirements of article 9, paragraph 1.

20. "Non-negotiable electronic transport record" means an electronic transport record that is not a negotiable electronic transport record.

Chapter 3 Electronic transport records

Article 8 Use and effect of electronic transport records

Subject to the requirements set out in this Convention:

- (a) Anything that is to be in or on a transport document under this Convention may be recorded in an electronic transport record, provided the issuance and subsequent use of an electronic transport record is with the consent of the carrier and the shipper; and
- (b) 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.

Article 9 Procedures for use of negotiable electronic transport records

1. The use of a negotiable electronic transport record shall be subject to

procedures that provide for:

- (a) The method for the issuance and the transfer of that record to an intended holder;
 - (b) An assurance that the negotiable electronic transport record retains its integrity;
 - (c) The manner in which the holder is able to demonstrate that it is the holder; and
 - (d) The manner of providing confirmation that delivery to the holder has been effected, or that, pursuant to articles 10, paragraph 2, or 47, subparagraphs 1 (a) (ii) and (c), the electronic transport record has ceased to have any effect or validity.
2. The procedures in paragraph 1 of this article shall be referred to in the contract particulars and be readily ascertainable.

Article 10 Replacement of negotiable transport document or negotiable electronic transport record

1. If a negotiable transport document has been issued and the carrier and the holder agree to replace that document by a negotiable electronic transport record:
- (a) The holder shall surrender the negotiable transport document, or all of them if more than one has been issued, to the carrier;
 - (b) The carrier shall issue to the holder a negotiable electronic transport record that includes a statement that it replaces the negotiable transport document; and
 - (c) The negotiable transport document ceases thereafter to have any effect or validity.
2. If a negotiable electronic transport record has been issued and the carrier and the holder agree to replace that electronic transport record by a negotiable transport document:
- (a) The carrier shall issue to the holder, in place of the electronic transport record, a negotiable transport document that includes a statement that it replaces the negotiable electronic transport record; and

(b) The electronic transport record ceases thereafter to have any effect or validity.

Chapter 8 Transport documents and electronic transport records

Article 37 Identity of the carrier

1. If a carrier is identified by name in the contract particulars, any other information in the transport document or electronic transport record relating to the identity of the carrier shall have no effect to the extent that it is inconsistent with that identification.

2. If no person is identified in the contract particulars as the carrier as required pursuant to article 36, subparagraph 2 (b), but the contract particulars indicate that the goods have been loaded on board a named ship, the registered owner of that ship is presumed to be the carrier, unless it proves that the ship was under a bareboat charter at the time of the carriage and it identifies this bareboat charterer and indicates its address, in which case this bareboat charterer is presumed to be the carrier. Alternatively, the registered owner may rebut the presumption of being the carrier by identifying the carrier and indicating its address. The bareboat charterer may rebut any presumption of being the carrier in the same manner.

3. Nothing in this article prevents the claimant from proving that any person other than a person identified in the contract particulars or pursuant to paragraph 2 of this article is the carrier.

Chapter 10 Rights of the controlling party

Article 50 Exercise and extent of right of control

1. The right of control may be exercised only by the controlling party and is limited to:

- (a) The right to give or modify instructions in respect of the goods that do not constitute a variation of the contract of carriage;
- (b) The right to obtain delivery of the goods at a scheduled port of call or, in respect of inland carriage, any place en route; and
- (c) The right to replace the consignee by any other person including the controlling party.

2. The right of control exists during the entire period of responsibility of the carrier, as provided in article 12, and ceases when that period expires.

Article 51 Identity of the controlling party and transfer of the right of control

1. Except in the cases referred to in paragraphs 2, 3 and 4 of this article:

(a) The shipper is the controlling party unless the shipper, when the contract of carriage is concluded, designates the consignee, the documentary shipper or another person as the controlling party;

(b) The controlling party is entitled to transfer the right of control to another person. The transfer becomes effective with respect to the carrier upon its notification of the transfer by the transferor, and the transferee becomes the controlling party; and

(c) The controlling party shall properly identify itself when it exercises the right of control.

2. When a non-negotiable transport document has been issued that indicates that it shall be surrendered in order to obtain delivery of the goods:

(a) The shipper is the controlling party and may transfer the right of control to the consignee named in the transport document by transferring the document to that person without endorsement. If more than one original of the document was issued, all originals shall be transferred in order to effect a transfer of the right of control; and

(b) In order to exercise its right of control, the controlling party shall produce the document and properly identify itself. If more than one original of the document was issued, all originals shall be produced, failing which the right of control cannot be exercised.

3. When a negotiable transport document is issued:

(a) The holder or, if more than one original of the negotiable transport document is issued, the holder of all originals is the controlling party;

(b) The holder may transfer the right of control by transferring the negotiable transport document to another person in accordance with article 57. If more than one original of that document was issued, all originals shall be transferred to that person in order to effect a transfer of the right of

control; and

(c) In order to exercise the right of control, the holder shall produce the negotiable transport document to the carrier, and if the holder is one of the persons referred to in article 1, subparagraph 10 (a) (i), the holder shall properly identify itself. If more than one original of the document was issued, all originals shall be produced, failing which the right of control cannot be exercised.

4. When a negotiable electronic transport record is issued:

(a) The holder is the controlling party;

(b) The holder may transfer the right of control to another person by transferring the negotiable electronic transport record in accordance with the procedures referred to in article 9, paragraph 1; and

(c) In order to exercise the right of control, the holder shall demonstrate, in accordance with the procedures referred to in article 9, paragraph 1, that it is the holder.

Article 54 Variations to the contract of carriage

1. The controlling party is the only person that may agree with the carrier to variations to the contract of carriage other than those referred to in article 50, subparagraphs 1 (b) and (c).

2. Variations to the contract of carriage, including those referred to in article 50, subparagraphs 1 (b) and (c), shall be stated in a negotiable transport document or in a non-negotiable transport document that requires surrender, or incorporated in a negotiable electronic transport record, or, upon the request of the controlling party, shall be stated in a non-negotiable transport document or incorporated in a non-negotiable electronic transport record. If so stated or incorporated, such variations shall be signed in accordance with article 38.

Sale of Goods Act 1979

Section 38(1) the seller of goods is an unpaid seller within the meaning of this Act:

- (a) when the whole of the price has not been paid or tendered;
- (b) when a bill of exchange or other negotiable instrument has been received as conditional payment, and the condition on which it was received has not been fulfilled by reason of dishonour of the instrument or otherwise.

Section 61(4)

A person is deemed to be insolvent within the meaning of this Act if he has either ceased to pay his debts in the ordinary course of business or he cannot pay his debts as they become due.

CISG

Article 71

(1) A party may suspend the performance of his obligations if, after the conclusion of the contract, it becomes apparent that the other party will not perform a substantial part of his obligations as a result of:

- (a) a serious deficiency in his ability to perform or in his creditworthiness;
- or
- (b) his conduct in preparing to perform or in performing the contract.

(2) If the seller has already dispatched the goods before the grounds described in the preceding paragraph become evident, he may prevent the handing over of the goods to the buyer even though the buyer holds a document which entitles him to obtain them. The present paragraph relates only to the rights in the goods as between the buyer and the seller.

(3) A party suspending performance, whether before or after dispatch of the goods, must immediately give notice of the suspension to the other party and must continue with performance if the other party provides adequate assurance of his performance.

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