

The Regulation of New Electronic Payment Services in China

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The Regulation of New Electronic Payment Services in China

PhD/MPhil Thesis

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Declaration: I declare that the work presented in this thesis is my own.

Signature: Wen Li

Abstract: New electronic payment services have been developed in China which are becoming increasingly important for the Chinese electronic commerce, banking and financial system, as well as the whole economy. The most important of these are Internet third party payment and virtual currency. As with all financial systems, there is a perceived need for regulation. China has begun to regulate these systems through a number of “Measures”, “Notices”, “Reply”, “Public Announcements” and cases, but in a piecemeal and uncoordinated manner. On the basis of general regulatory theories, the regulation of Internet third party payment and virtual currency in China and in the EU/UK are systematically and comprehensively studies in detail in this thesis with a comparative perspective. The author has made recommendations to the Chinese regulation of the new electronic payment services both in the general principles level and in specific regulatory approaches level, by taking into account lessons that China may learn from the EU/UK regulatory experience, the western regulatory theories and China’s own regulatory practice.

Table of Contents

Chapter 1 Introduction Chapter of the PhD Thesis

1. Introduction

1.1 Subject of research

1.2 Research questions

1.3 Methodology

1.4 Literature and other sources

2. Sources of law and hierarchy of the Chinese law in the Chinese legal system

2.1 Legislations

2.1.1 The National People's Congress and its Standing Committee: Constitution and Laws

2.1.1.1 Constitution

2.1.1.2 Laws (法律)

2.1.2 The State Council: Administrative Regulations

2.1.3 Local People's Congresses: Local Regulations, Autonomous Regulations, and Specific Regulations

2.1.3.1 Provincial governments

2.1.3.2 Governments of the Provincial Capital Cities or Larger Cities

2.1.3.3 Governments of the Special Economic Zones

2.1.3.4 Governments of Autonomous Areas

2.1.4 Ministries of the State Council: Departmental Rules

2.1.5 Local People's Governments: Local Rules

2.2 Interpretations of laws

- 2.3 Case law
- 2.4 International treaties
- 2.5 Rules issued by the Chinese Communist Party
- 2.6 Rules issued by trade associations

Chapter 2 Basic Concepts of Money, Payment and Chinese Payment Systems

- 1. Basic concepts of money, payment and payment system models
 - 1.1 What is money?
 - 1.2 What is payment?
 - 1.3 Two basic fund transfer models: credit transfer and debit transfer
 - 1.4 Two basic payment systems: account-based system and cash-based system
- 2 Chinese payment systems
 - 2.1 A brief history and the development of Chinese payment system
 - 2.1.1 Planned economy stage (1949-1978)
 - 2.1.2 Initial reform and opening up stage (1978-1992)
 - 2.1.3 The stage between 1992 and 2000
 - 2.1.4 New century stage (2000 and onwards)
- 3. An analytical introduction to new electronic payment in the Internet era in contemporary China
 - 3.1 Renminbi new electronic payment services
 - 3.1.1 Internet as a new window to facilitate Renminbi transfers, where Internet third party payment providers are not involved

- 3.1.1.1 Internet banking transfer payment
- 3.1.1.2 Direct connection between Internet businesses and Internet banking
- 3.1.2 Internet third party payment
 - 3.1.2.1 Internet third party gateway payment
 - 3.1.2.2 Virtual accounts payment
- 3.2 Virtual currency new electronic payment services
- 4. Conclusion

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services
Regulation

Introduction

- 1. General theory of regulation
 - 1.1 What is regulation?
 - 1.2 Why regulate?
 - 1.2.1 Monopolies and natural monopolies
 - 1.2.2 Windfall profits
 - 1.2.3 Externalities
 - 1.2.4 Information inadequacies
 - 1.2.5 Continuity and availability of service
 - 1.2.6 Anti-competitive behaviour and predatory pricing
 - 1.2.7 Public goods and moral hazard
 - 1.2.8 Unequal bargaining power

1.2.9 Scarcity and rationing

1.2.10 Rationalization and coordination

1.2.11 Planning

1.2.12 Other regulatory rationales

1.3 What is a good regulation?

2. Theory of banking and financial regulation and its application to the regulation of electronic payment services

2.1. Definition of bank regulation and bank supervision

2.2. Arguments and justifications for regulating banking and financial sectors, and applications to electronic payment services

2.2.1 Fundamental justification: confidence

2.2.2 Three main arguments for the regulation of banking and financial sectors and electronic payment services

2.2.2.1 The first argument: protection against monopolies

2.2.2.2 The second argument: client protection

2.2.2.3 The third argument: ensuring systemic stability

2.2.3 Specific and standard justifications of government regulation and their applications to electronic payment services

2.2.4 An additional argument and justification for regulating new electronic payment services

3. General principles of payment systems regulation and their applications to the new electronic payment services

4. Specifically what regulatory principles should be considered in a good regulation of new electronic payment in China?

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

Introduction

1. Market layout of Internet third party payment providers in China

1.1 market layout and relevant statistics

1.2 Industry features: from e-payment 1.0 to e-payment 2.0

2. A very crucial legislation—“Measures of Management on Non-Financial Institutions Payment Services”

3. Legal issues on Internet third party payment providers: the relationship between the state and providers

3.1 Barrier to entry for Internet third party payment providers to operate as legitimate providers

3.1.1 Why the People’s Bank of China proposed to impose licensing?

3.1.2 The current licensing scheme is too restrictive, because its minimal registration capital requirements are too restrictive

3.1.3 The role of the market

3.2 Retained funds in Internet third party payment providers and the regulation

3.2.1 In traditional banking electronic funds transfers, retained funds in credit transfers differ from retained funds in debit transfers.

3.2.1.1 Retained funds in credit transfers

3.2.1.2 Retained funds in debit transfers

3.2.1.3 Retained funds in Internet third party payment providers

3.2.2 Regulation of retained funds in Internet third party payment providers

3.2.2.1 Relevant points

4. Conclusion

Chapter 5 Virtual Currency and Its Regulation in China

1. Definition and analytical introduction of virtual currency

1.1 Definition

1.2 Is virtual currency “money” in economics?

1.3 Is virtual currency “money” in legal sense?

1.4 Distinctions between virtual currency and states-issued currency

1.4.1 Issuers

1.4.2 Risks

1.4.3 Regulation

1.5 Why did virtual currency exist and develop in China?

2. Life cycle and industry chain of virtual currency in China

2.1 Components of the chart

2.1.1 Regulators

2.1.2 Virtual currency issuers inside/outside Internet games

2.1.3 Virtual currency players

2.1.3.1 Ordinary virtual currency players

2.1.3.2 Gold (virtual currency) farmers

2.1.3.3 Virtual currency speculators

3. Arguments and justifications on regulating virtual currency in China

3.1 Economic arguments for regulating virtual currency

3.1.1 Virtual currency will not cause inflation in the real economy and will not affect Renminbi market

3.1.2 Virtual currency still needs to be regulated

3.2 Ethical and moral arguments for regulating virtual currency

4. Critically analysing current legal regulation of virtual currency in China

4.1 “Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games”

4.2 “Notice on Further Enhancing the Regulatory Work of Cyber Cafes and Internet Games”

4.3 An Official Reply by the China State Administration of Taxation on “individuals gain profits by trading virtual currency through the Internet must pay personal income tax”

4.4 A Public Announcement by the People’s Bank of China

4.5 “Notice of Enhancing Regulatory Work on Internet Games Virtual Currency”

4.5.1 The first comprehensive and systematic regulatory Measures of virtual currency

4.5.2 Defining “Internet games virtual currency”

4.5.3 Regulating market behaviours

4.5.4 A strong consumer protection approach

4.5.5 Setting up an example for the world

4.6 “Provisional Measures of Management on Internet Games”

5. Conclusion

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

1. Introduction

1.1 Overview

1.2 Internet third party payment in the EU—with the example of Paypal Europe

1.3 Virtual property, virtual currencies and economy in virtual worlds: how people interact economically in the virtual environments?

1.4 Electronic money and electronic money regulations

2. Can the Electronic Money Directive 2000 and the Electronic Money Directive 2009 apply to Internet third party payment and virtual currency?

2.1 Background of the Electronic Money Directive 2000

2.2 Definition of e-money in the Electronic Money Directive 2000

2.2.1 The first requirement

2.2.2 The second requirement

2.2.3 The third requirement

2.3 Definition of e-money in the Electronic Money Directive 2009

2.4 Selective key regulatory aspects of the Electronic Money Directive 2000 and the Electronic Money Directive 2009 on Internet third party payment and virtual currency

2.4.1 From “institutional regulation” approach to “activities regulation” approach

2.4.2 Capital requirements

2.4.2.1 Initial capital requirements

2.4.2.2 Ongoing capital requirements and own funds

2.4.3 Limitations of investment and safeguarding rules

2.4.4 Issuance and redeemability

3. Can the EU Payment Services Directive 2007 apply to Internet third party payment and virtual currency?

3.1 Background of the Payment Services Directive 2007

3.2 Scope of the Payment Services Directive 2007 and Internet third party payment and virtual currency

3.3 Obligations placed by the Payment Services Directive 2007 on Internet third party payment providers and virtual currency operators

3.3.1 Initial capital requirements, own funds requirements and safeguarding rules

4 Other relevant laws apart from the Electronic Money Directives 2000/2009 and the Payment Services Directive 2007

5. Conclusion

Chapter 7 Conclusion -- Lessons that China May Learn

Introduction

1. Lesson 1: Institutional regulation or functional regulation (activities regulation), EU's experience and China's choice

1.1 Theory of financial regulatory approaches

1.1.1 Four types of regulatory approaches in financial regulations

1.1.2 Institutional regulation and functional regulation, the EU's application

1.2 The reason why the EU electronic money regulatory regime switched from institutional regulation to activities regulation

1.3 China's situation and China's choice in the regulatory approach of Internet third party payment

1.4 China's situation and China's choice in the regulatory approach of virtual currency

1.5 Transition in a big picture

1.6 Shortcomings of functional regulation in context

2. Lesson 2: Clearer and wider definition

2.1 EU's experience on defining "electronic money" in Electronic Money Directives

2.2 Legal definitions of Internet third party payment and virtual currency in China

2.2.1 Legal definition of Internet third party payment

2.2.2 Legal definition of virtual currency

3. Lesson 3: Light-touch regulation

3.1 EU's experience on light-touch regulation

3.2 Is the regulation of Internet third party payment and Internet games virtual currency in China a light-touch regulation?

4 Conclusion for this chapter as well as for the whole thesis

Appendix

Bibliography

Chapter 1 Introduction Chapter of the PhD Thesis

1 Introduction

1.1 Subjects of research

Due to the lack of efficient offline payment services for small value payment, and along with the booming of the Internet and telecommunications technologies, new electronic payment services and instruments are becoming increasingly popular and important in the first and second decades of the 21 century in China's electronic commerce economy. The new electronic payment instruments, which primarily include Internet third party payment and virtual currency, are the subjects of research in this thesis.

This thesis focuses on electronic payment law relating to the Internet, and the e-payment law which has been altered substantially by the Internet, rather than focusing on a comprehensive law of payment, clearance and settlement, or traditional mechanisms of payment, such as negotiable instruments and electronic funds transfers that occurs only within the intranet of closed banking systems. Although the new electronic payment instruments cannot escape from the influence of the traditional payment, and new payment instruments are based upon the traditional one both in technological infrastructure and in legal framework, the new electronic payment instruments do possess their own special features in technology, business models and in law.

On this regard, readers might be asking why the author did not use the topic of "Internet Payment" or "online payment" instead of "new electronic payment" for the title of the thesis. The answer is because in China, telephone payment, along with Internet payment should be collectively considered as new electronic payment tools, and therefore, it is too narrow to just

use the term “Internet Payment”. Also, the word “online” is, somewhat, a misleading word, and the author tries to specify in most cases whether it is an “Internet” or a “mobile network” or “landlines” or any other forms of networks in the following analysis when the concept of “online” has to be referred to.

On the other hand, it is a truth that, among those new electronic payment instruments, it is the Internet that has been shaking and reshaping the infrastructure framework of payment, clearance and settlement; and telephone payment as well as mobile payment, to a great extent, are relying on the Internet. Therefore, Internet-related payment lies at the heart of the thesis.

Furthermore, in China, new electronic payment instruments are largely created and facilitated through non-bank Internet third party payment providers and virtual currency. These two types of new electronic payment services possess enormous scale and are developing in a fast speed. Therefore, this thesis will treat the law on non-bank Internet third party payment platform providers and virtual currency as two crucial points to discuss.¹

1.2 Research Questions

The hypothesis of the thesis is that legal issues arising from new electronic payment services, which heavily rely on and is substantially attached to the Internet, are different from legal issues pertaining to traditional electronic payment services which are primarily intra-bank or inter-bank related. For example, in the Internet third party payment system (see Chapter 4 of the thesis), non-bank intermediaries are involved which is outside the regulatory framework of the traditional banking and payment system; also for example, in the virtual currency system (see Chapter 5 & 6 of the thesis), money is not issued by governments and denominated into any national legitimate currencies such as Renminbi in China, instead, money is issued by private Internet companies and denominated into currencies of those private companies. Thus, there are a number of legal questions to be considered: how is the

¹ Thereafter, the terms “non-bank Internet third party payment platform providers”, “Internet third party payment providers”, “Internet third party providers” and “third party providers” are all pointing to the same thing.

Internet third party payment being regulated in China? What are the key issues in regulating the Internet third party payment? Is the current regulation appropriate? How to regulate the Internet games virtual currency in China? How is the Internet third party payment and virtual currency regulated in the European Union? Are there any lessons that China may learn from the European Union? In the thesis, the author examines these important legal issues relating to new electronic payment in detail, evaluate current existing regulations both in China and in the EU/UK, and propose specific regulatory approaches and measures for China.

1.3 Methodology

The methodology of the thesis is primarily based on an extensive literature review, literature on legal analysis of primary legal sources and online research. Due to the characteristics of the topic—electronic payment law which falls into the category of Internet law, electronic commerce law and information technology law in general, many of the literature review sources came from websites in the Internet which provide up-to-date information. Methods of comparative study are also applied when examining the Internet third party payment and virtual currency in chapter 6 where EU law and UK law are involved. The law is up-to-date until 31 December 2013, unless stated otherwise.

1.4 Literature and other sources

There is extensive literature on the law of “traditional” electronic funds transfer, encompassing legislation, cases, and scholarly writing by leading academics in this field. The classic legal issues involved include (but are not limited to): legal nature of electronic funds transfers, legal relationship between payers and payees, the relationships among funds transfer participants: the originator, the originator’s bank, intermediary banks, the beneficiary’s bank and the beneficiary, finality rules of the electronic funds transfers,² etc. Unfortunately almost none of this literature is helpful in understanding the new Internet

² See one of the author’s publications, Li, Wen, “Stones from Other Hills: Finality Rules within the Law of International Large Value Electronic Credit Transfers in China”, *International Review of Law, Computer & Technology*, Volume 21 Number 3, Nov. 2007. ISSN: 1360-0869.

electronic payment services, which is the exciting thing happening at present and is the future of funds transfers model in the Internet era.

When it comes to the new electronic payment law, there are very few publications or literature, neither in English nor in Chinese, which have addressed the law of new electronic payment from academic perspectives.³ The reason is that, the area of new electronic payment law is so new that most legal scholars have not put their attention on it yet. Also, because it is a brand new area, a large number of law suits have not emerged yet. The shortage of legal literature creates some difficulties for doing the research and writing the thesis; but, for the same reason, it means that the thesis could contribute more original thoughts in this area. Therefore, the author has reviewed a large number of industry news, commentators' writings, and journalists' publications to form a systematic point of view of the topic. Meanwhile, due to the nature of the subject of research, a substantial proportion of the literature review is online resources which might be updated from time to time. The author has tried his best to ensure all online resources are up-to-date, and are as reliable as possible, for example, from official news agencies or governmental websites. There is a translation issue of the literature in Chinese, the author has exert his most to make sure that the translation from Chinese to English is as precise and accurate as possible. Also, in the case of information which is extracted from blogs and news articles, the author has attempted to confirm each piece of information and, where confirmation is not possible, identify whether it is from a reliable resource or merely a speculation of the writer of the blog or news article.

2. Sources of law and hierarchy of the Chinese law in the Chinese legal system

In order to develop legal analysis on the law of new electronic payment in, and because a number of “Measures”, “Provisions”, “Regulations” and “Reply” will be discussed in the

³ There are some examples that could represent the literature of the law of new electronic payment services in China: Su, Ning (苏宁), “Theoretical analysis on virtual currency”, (Beijing: Social Science Academic Press, 2008); “Research Report on Internet ‘Currency Form’ Payment with Electronic Carriers” written by Professor Zhang, KuangHai (张宽海) and “Southwestern University of Finance and Economics, Payment and Settlement Research Centre”.

following chapters of the thesis, it is necessary to understand the sources of law and the hierarchy of legal validity within the modern Chinese legal system. This introduction will be especially helpful for non-Chinese academics and lawyers.

Officially, the Chinese government proclaims that its legal system is a socialist legal system with distinctive Chinese characteristics.⁴ In terms of sources of law, the legal system of PRC is more similar to the legal system of the European Continental Roman Law (or Civil Law) because the sources of law in the PRC concentrate on statutes and other written legal documents.⁵ The current Chinese legal system does not formally recognize cases or judicial precedents as a source of law. However, in practice, cases are often cited as persuasive authority and some courts follow judicial precedents to decide issues when statutes are vague. In particular, certain decisions of the Supreme People's Court that can be read as generating legal norms have binding effect on lower courts. In terms of how Chinese law is created, the sources of Chinese law can be divided into legislation, delegated legislation (regulation and rule making), judicial interpretation, and case law.⁶

China is a highly centralized country. The 1982 Constitution authorized a legislative hierarchy and an administrative hierarchy for the central government and local government to enact laws or normative documents.⁷ The Constitution also provides for different scopes of legal effect for laws enacted by different levels of legislative bodies or administrative agencies.⁸ These general principles set in the 1982 Constitution are clarified and detained by the Legislation Law of the PRC enacted on March 15, 2000.⁹

⁴ Article 5 of the 1982 Constitution (the latest amendment was made in 2004) states: "The People's Republic of China governs the country according to law and makes it a socialist country ruled by law. The state upholds the uniformity and dignity of the socialist legal system". Full English text of the Chinese Constitution is available @ http://www.gov.cn/english/2005-08/05/content_20813.htm (8 January 2014).

⁵ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 51.

⁶ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 105.

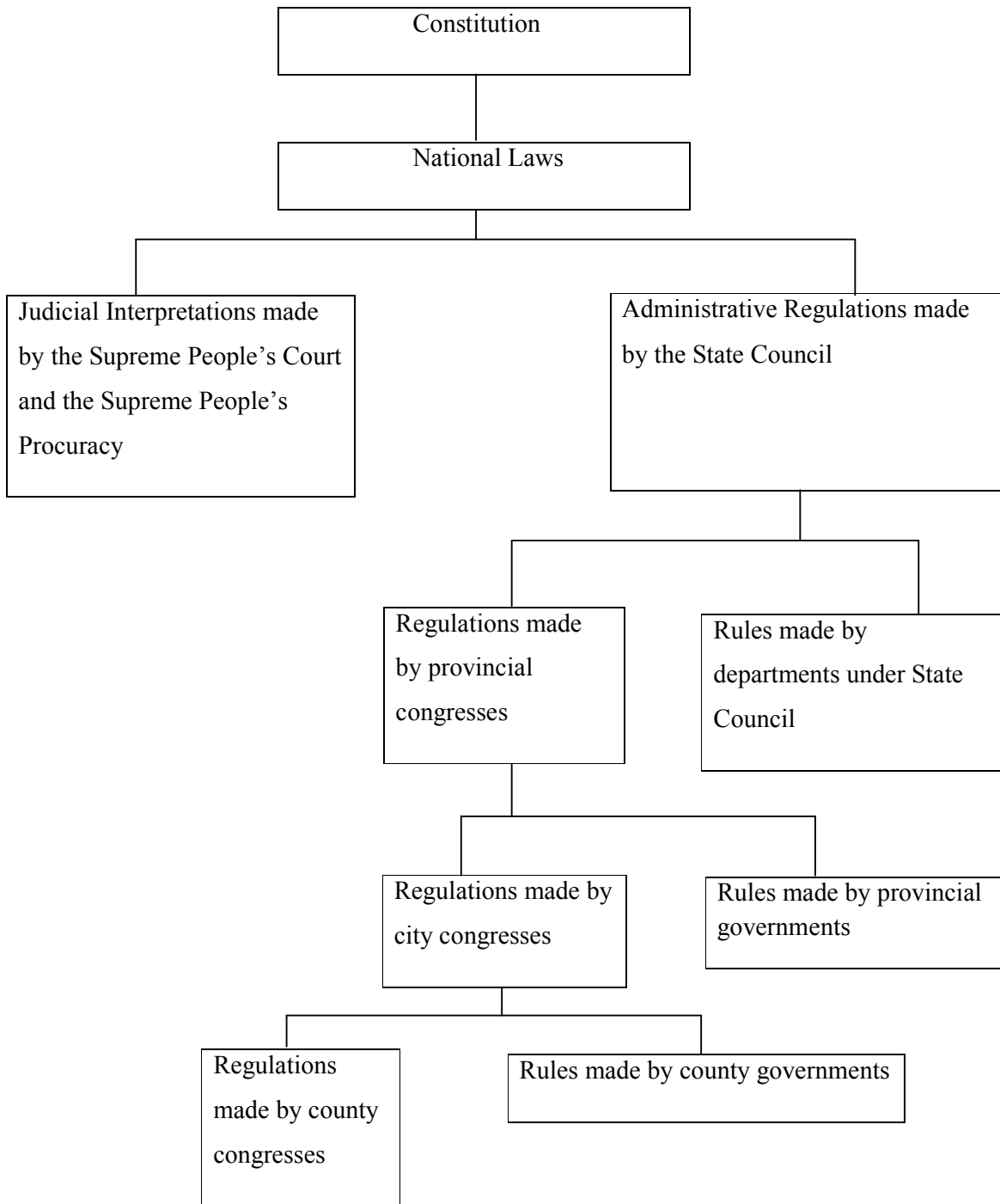
⁷ Normative documents are similar to (but not entirely identical with) a guidance note from e.g. the UK Information Commissioner – not a definitive statement of law but very persuasive to the courts, and likely to be followed by those who do not wish to go to court.

⁸ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 105.

⁹ Full English text of the Legislation Law of the People's Republic of China is available @ http://www.china.org.cn/government/laws/2007-04/17/content_1207420.htm (8 January 2014).

The chart below provides an overall picture of the hierarchy of Chinese law followed by a general introduction of different types of laws in different levels.¹⁰

¹⁰ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 139.



2.1 Legislations

2.1.1 The National People's Congress and its Standing Committee: Constitution and Laws

According to the Constitution of the PRC, the National People's Congress (NPC) is the supreme legislative body of the People's Republic of China.¹¹ Only the NPC has the power to amend the Constitution and to enact or amend basic laws such as the criminal code, criminal procedure code, the civil code, the civil procedure code, and laws relating to the organisation of state organs.¹² The rationale is that the constitution, these four basic codes, and organic laws are the primary statements of the Chinese legal system and are available to be supplemented and elaborated by other laws.¹³

2.1.1.1 Constitution

Since 1949, the PRC has enacted four constitutions. Based on the enacting year, they are called the 1954 Constitution, 1975 constitution, 1978 Constitution, and 1982 Constitution. The 1982 Constitution has been amended four times in 1988, 1993, 1999, and 2004.¹⁴

2.1.1.2 Laws (法律)

All legal documents promulgated by the NPC or its Standing Committee are called “laws (法律)” that usually govern the whole nation unless the governing scope is limited to a certain region, such as the Hong Kong Special Administrative Region Basic Law¹⁵ which is only effective to Hong Kong. This category of laws actually is the national law. This category of laws can also be entitled “Provisions (条例/规定)”, “Measures (办法/方案)”, “Resolution (决

¹¹ Article 58 of the Constitution of PRC, “The National People's Congress and its Standing Committee exercise the legislative power of the state”.

¹² Article 62 of the Constitution of PRC.

¹³ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y. : W. S. Hein, 2005) p. 106.

¹⁴ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 107.

¹⁵ See full English text @ http://www.basiclaw.gov.hk/en/basiclawtext/images/basiclaw_full_text.pdf (8 January 2014).

议)”, “Decision (决定)”, and “Interpretations (解释)”.¹⁶ These different terms do not represent a hierarchy; they are in the same level. The reason for different titles is based on different purposes of legislations and also based on which body issues the legislation.

2.1.2 The State Council: Administrative Regulations

The State Council is the highest authority in the country’s administration. It is empowered under Article 89 of the 1982 Constitution to “adopt administrative measures, enact administrative rules and regulations, and issue decisions and orders in accordance with the constitution and statutes”.¹⁷ After July 1, 2000, when the Legislation Law became effective, the State Council only formulated administrative regulations in order to implement laws and to deal with matters related to administrative management powers of authority of the State Council stipulated under article 89 of the Constitution. The administrative regulations are normally promulgated under the Chinese titles of “detail implementation rules (实施细则)”, “Regulations (条例)”, “Provisions (规定)”, “Measures (办法)”, and “Decisions (决定)”.¹⁸ The State Council also often publishes “Notice (通知)” and “Opinion (意见)” to supplement its administrative regulations.¹⁹

Readers might notice that some of the Chinese characters used in Laws (法律) (see part 2.1.1.2 of this chapter) and in the State Council Administrative Regulations (part 2.1.2 of this chapter) are the same. For example, “Provisions (规定)” appears in both sections. It should be noted that the title of the regulation is not important. The important thing is which body issues the regulation. A State Council Provisions is lower in status than an NPC Provisions.

¹⁶ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 108.

¹⁷ This stipulation is reaffirmed by Article 56 of the Legislation Law of the PRC 2000.

Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 109.

¹⁸ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 110.

¹⁹ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 111.

2.1.3 Local People's Congresses: Local Regulations, Autonomous Regulations, and Specific Regulations

In the hierarchy of Chinese law, local regulations (地方法规), autonomous regulations (自治条例) and specific regulations (单行条例) are next to administrative regulations promulgated by the State Council. All local laws and administrative regulations are to be reported to the NPC or the State Council for record keeping and review. If local regulations or rules contravene the Constitution, the statutes, or administrative regulations at the national level, the Standing Committee of the NPC or the State Council can annul the local regulations or rules.²⁰

2.1.3.1 Provincial governments

Article 100 of the 1982 Constitution empowers local people's congresses and their standing committees at the provincial level to enact and promulgate local regulations (地方法规) with the condition that they must not contravene the Constitution and laws and administrative regulations, and that they shall report such local regulations to the Standing Committee of the National People's Congress for recording.²¹

2.1.3.2 Governments of the Provincial Capital Cities or Larger Cities

Under the 1986 Amendment to the Organic Law of Local People's Congresses and Local People's Governments of 1979 (中华人民共和国地方各级人民代表大会和地方各级人民政府组织法),²² the people's congresses of provincial capital cities and larger municipalities specified by the State Council and their standing committees were authorized to enact local regulations subject to the approval of the provincial people's congresses' standing

²⁰ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 112.

²¹ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 112.

²² See full English text of the law @ http://www.airitilaw.com.tw/falvm/app/dbhy/f_enlawshow.jsp?TID=20090619141239507498741 (8 January 2014).

committees. This principle is confirmed by Articles 63 and 64 of the Legislation Law of the PRC 2000.²³

2.1.3.3 Governments of the Special Economic Zones

In 1980, the Chinese government established four special economic zones in Shenzhen, Zhuhai, Shantou, and Xiamen to carry out the open door policy and economic reform. In order to let these special economic zones be more flexible in formulating local regulations in order to attract foreign investments, on November 11, 1981, the Standing Committee of the NPC promulgated a resolution to authorize the provincial governments of Guangdong and Fujian to formulate specific economic regulations for the special economic zones based on special circumstances of these zones. In April 1988, the First Plenary Session of the Seventh People's Congress passed a resolution to make the Hainan Province (the second biggest island in China) into a special economic zone and authorize the Government of Hainan Province to formulate local regulations for the province.²⁴ Those regulations can only be applied within the Special Economic Zones.

2.1.3.4 Governments of Autonomous Areas

China established some autonomous areas where ethnic minorities are concentrated. In order to let these ethnic minorities exercise autonomy in the light of their political, economic and cultural characteristics, Article 116 of the 1982 Constitution empowers the People's Congress of the Autonomous regions to enact autonomous regulations (自治条例) and specific regulations (单行条例).²⁵

2.1.4 Ministries of the State Council: Departmental Rules

²³ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 113.

²⁴ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 113 & p. 114.

²⁵ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 114.

The Constitution authorised ministries and commissions²⁶ under the State Council to issue orders, directives, and rules within the jurisdiction of their respective departments in accordance with laws and the administrative regulations, decisions, and orders issued by the State Council.²⁷

Rules promulgated by ministries and other departments under the State Council are usually called “administrative rules (行政规章)” or “departmental rules” (部门规章). In the hierarchy of Chinese law, departmental rules are at the same level as local regulations promulgated by provincial people’s congresses and their standing committees.²⁸

Much of the “Measures”, “Notices”, and “Provisions” to be discussed in chapter 2, 3, 4, 5 and 7 are departmental rules issued by various Ministries of the State Council, such as the Ministry of Commerce, the Ministry of Culture and the People’s Bank of China.

2.1.5 Local People’s Governments: Local Rules

Under the 1982 Constitution, local people’s congresses elect governors and deputy governors, or majors and deputy majors, or heads and deputy heads of counties, districts, and townships for their respective people’s governments. The 1982 Constitution does not provide whether local governments have rights to formulate local rules (地方规章). However, Article 73 of the Legislation Law of the PRC 2000 provides that the people’s government of a province, autonomous region, and municipality directly under the Central Government or a relatively large city may formulate local government rules according to laws, administrative regulations, and local regulations of the province, autonomous region, or municipality directly under the Central Government. However, local government rules may only regulate matters requiring

²⁶ The 1982 Constitution does not provide whether the Central Military Commission has powers to formulate military regulations or rules. However, Article 93 of the Legislation Law of the PRC 2000 provides that the Central Military Commission formulates military regulations in accordance with the Constitution and other laws. See “The Central Military Commission: Military Regulations and Rules”, Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 116.

²⁷ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 115.

²⁸ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 115.

rules to be formulated in order to implement laws, administrative regulations, or local regulations; and matters that are within the specified regulatory scope of a local administrative region.²⁹

2.2 Interpretations of laws

Because Chinese leaders have traditionally treated law as an instrument to enforce their policies, the languages of Chinese laws and regulations are often and intentionally ambiguous so as to give policy makers and government officials great flexibility in their interpretation and implementation.³⁰

There are five types of interpretations of laws under the Chinese legal system, which are legislative interpretation, judicial interpretations, administrative interpretation, the interpretation of administrative regulations, and local regulation and rule interpretation.³¹ The only interpretation referred to in this thesis is the “Official Reply by the China State Administration of Taxation on ‘individuals gain profits by trading virtual currency through the Internet must pay personal income tax’ ” in chapter 4. This Reply is an administrative interpretation.

2.3 Case law

The current Chinese legal system does not formally or officially recognize cases or judicial precedents as a source of law. However, in reality, some cases selected and published by the Supreme People’s Court have been used as legal norms by some courts.³² In the context of the thesis, Chinese cases are not cited as a source of law, but only used for the purpose of academic discussions, for example, the “Red Moon” case discussed in part 2.2.2 in chapter 7 of the thesis.

²⁹ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 115 & p. 116.

³⁰ Pitman B. Potter, *The Chinese Legal System: Globalization and local legal culture* (New York: Routledge, 2001) p. 11.

³¹ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 117-132.

³² Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 132.

2.4 International treaties

According to Chinese practice, international treaties and agreements entered by the Chinese Central Government (the State Council) and ratified by the Standing Committee of the NPC become an integral part of law in China except for those provisions over which the PRC makes reservations.³³ In the scenario of the thesis, no international treaties are referred to.

2.5 Rules issued by the Chinese Communist Party

Theoretically, the rules and other documents issued by the Chinese Communist Party should only have binding effect on itself and its members. However, in practice, some rules also have legally binding effects on Chinese citizens and entities.³⁴ For example, the Central Committee of the China Communist Party and the State Council jointly promulgated the “Ten-Year Plan of Developing Human Resources for the Western Area (西部地区人才开发十年规划)” on Feb. 10, 2002.³⁵ In the context of the thesis, no rules issued by the Chinese Communist Party are mentioned.

2.6 Rules issued by trade associations

It is worthwhile to mention that as the Chinese government further reformed its economy, it also relaxed its control on micromanagement of most of business sectors and let trade associations set rules for their industries and self-discipline their professional conduct. In the context of the thesis, no rules issued by trade associations are mentioned.

³³ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 135.

³⁴ Luo, Wei (罗伟), *Chinese Law and Legal Research* (Buffalo, N. Y.: W. S. Hein, 2005) p. 136.

³⁵ See full Chinese text of the document @ http://www.china.com.cn/zhuanti/115/quyujingji/txt/2005-02/28/content_5797861.htm (8 January 2014).

To sum up, a systematic picture of the sources of law in Chinese legal system has been drawn above. Most regulations and rules to be discussed in the following chapters of the thesis belong to departmental rules issued by Ministries of the State Council.

Chapter 2 Basic Concepts of Money, Payment and Chinese Payment Systems

1. Basic concepts of money, payment and payment system models

1.1 What is money?

What is the meaning of the expression “money”? As with so many things, money has proved to be similar to the proverbial elephant—easy to identify but rather more difficult to define. As with so many things, the definition of money will depend on the context or framework within which the question is asked.

For economists, the question may arise in the context of monetary, fiscal or macro-economic policy.¹

One of the most quoted definitions of money is that given by Hayek:

“to serve as a widely accepted medium of exchange is the only function which an object must perform to qualify as money, though a generally accepted medium of exchange will generally acquire also the further functions of unit of account, store of value and standard of deferred payment, etc”.²

¹ Proctor, Charles (ed.), *Goode on Payment Obligations in Commercial and Financial Transactions* (2nd ed., London: Sweet & Maxwell, 2009) p. 1.

² Hayek, Friedrich, *Denationalisation of Money: an analysis of the theory and practice of concurrent currencies* (London: Institute of Economic Affairs, 1976) p 46.

The 2001 Nobel Prize laureate in economic sciences, Professor Joseph Stiglitz defines money by the functions it serves, and money is anything that is generally accepted as a unit of account, a medium of exchange, and a store of value. Money is, in other words, what it does.³

For the lawyer, the question is likely to arise in the context of the performance of a financial obligation arising under a contract, court order or statute.⁴ Dr. Frederick Alexander Mann is one of the most influential writers and scholars on the law of money in the 20th century in the western legal academic world. In his 5th edition of “The Legal Aspect of Money”, he wrote that:⁵

“It is suggested that in law the quality of money is to be attributed to all chattels which, issued by the authority of the law and denominated with reference to a unit of account, are meant to serve as a universal means of exchange in the State of issue.”

Dr. Mann further elaborates the definition of money from four separate aspects:

- Money is a chattel personal;⁶
- Only those chattels are money to which such character has been attributed by law, i. e. by or with the authority of the State;⁷
- Only those chattels issued by or on behalf of the State are money which are denominated with reference to a distinct unit of account;⁸

³ Stiglitz, Joseph. E. & Walsh, Carl. E. *Economics*, (4th ed., New York & London: W. W Norton & Company, 2006), p. 617.

⁴ Proctor, Charles (ed.), *Goode on Payment Obligations in Commercial and Financial Transactions* (2nd ed., London: Sweet & Maxwell, 2009) p. 1.

⁵ Mann, Frederick Alexander, *The Legal Aspect of Money: with Special Reference to Comparative Private and Public International Law* (Oxford: Clarendon Press; New York: Oxford University Press, 1992), p. 8.

⁶ Mann, Frederick Alexander, *The Legal Aspect of Money: with Special Reference to Comparative Private and Public International Law* (Oxford: Clarendon Press; New York: Oxford University Press, 1992), p. 8.

⁷ Mann, Frederick Alexander, *The Legal Aspect of Money: with Special Reference to Comparative Private and Public International Law* (Oxford: Clarendon Press; New York: Oxford University Press, 1992), p. 14.

- Chattels which have been created by law and which are denominated by reference to a unit of account are money if they are meant to serve as universal media of exchange in the State of issue.⁹

This definition of money by Dr. Mann focuses on money as a physical chattel—in other words, on money in the form of notes and coins.¹⁰ However, with the development of information technology money does not only exist in physical forms (such as coins and banknotes) but also in digital forms (such as electronic data and records). Also, with the development of bank and financial service, not only the State can create money, private institutions are playing increasingly important roles on money creation, such as bank loans. Therefore, Dr. Charles Proctor has offered a modern meaning of money:¹¹

- It must be expressed by reference to a name and denominated by reference to a unit of account which, in each case, is prescribed by the law of the State concerned; and
- The currency and unit so prescribed must be intended to serve as the generally accepted measure of value and medium of exchange within the State concerned.

Additionally, Mr. Colin Bamford has summarised the word “money” as “indicate a number of different tangible things and intangible concepts”:¹²

- It can be used to refer to the notes and coins that represent the monetary obligations of the sovereign issuer.
- When people speak of “having money in the bank” they are referring to the debt owed to them by their bank.¹³

⁸ Mann, Frederick Alexander, *The Legal Aspect of Money: with Special Reference to Comparative Private and Public International Law* (Oxford: Clarendon Press; New York: Oxford University Press, 1992), p. 23.

⁹ Mann, Frederick Alexander, *The Legal Aspect of Money: with Special Reference to Comparative Private and Public International Law* (Oxford: Clarendon Press; New York: Oxford University Press, 1992), p. 24.

¹⁰ Proctor, Charles (ed.), *Goode on Payment Obligations in Commercial and Financial Transactions* (2nd ed., London: Sweet & Maxwell, 2009) p. 2.

¹¹ Proctor, Charles, *Mann on the Legal Aspect of Money*, (Oxford: Oxford University Press, 2005), p. 35-36.

¹² Bamford, Colin, “Principles of International Financial Law”, (Oxford: Oxford University Press, 2011), p. 10.

- Politicians may speak of a growth in the supply of money when they mean an increase in the value of debts owed between members of the public.
- Central bankers draw a distinction between “central bank money” and other kinds of money; the one being represented by or derived from a debt owed by the issuing central bank (either in the form of bank notes or on accounts maintained with the central bank by commercial banks), the other comprising debts created between individuals or non-bank institutions.

It is worthwhile to point out here that all these definitions are in danger of being outdated by new online payment methods. Some payment methods (such as Q coins to be discussed in chapter 3 of the thesis) which are not in units of account prescribed by the State, are in fact widely accepted as payment.

1.2 What is payment?

Payment denotes the transfer of money or of a money fund, or performance of some other act tendered and accepted in discharge of a money obligation, but often the parties to a contract use the term to denote some intermediate step, such as a conditional payment or a dispatch of funds.¹⁴

Payment in the legal sense means a gift or loan of money or any act offered and accepted in performance of a money obligation. So an act cannot constitute payment unless money is involved, but this requirement may be satisfied not only by the transfer of money but also by the performance of some other act in fulfilment of an obligation to pay money.¹⁵

¹³ See *Foley v Hill* (1848) 2 HLC 28.

¹⁴ Proctor, Charles (ed.), *Goode on Payment Obligations in Commercial and Financial Transactions* (2nd ed., London: Sweet & Maxwell, 2009) p. 8-9.

¹⁵ Proctor, Charles (ed.), *Goode on Payment Obligations in Commercial and Financial Transactions* (2nd ed., London: Sweet & Maxwell, 2009) p. 9.

After clarifying the concepts of money and payment, it is necessary to explain what basic funds transfer models are and what basic payment systems are.

1.3 Two basic fund transfer models: credit transfer and debit transfer

Credit transfer and debit transfer are the two fundamental fund transfer methods. A credit transfer represents a “push” of funds by the originator to the beneficiary. The originator instructs his bank to cause the account of the beneficiary, at the same or another bank, to be credited. On receipt of the originator’s payment instruction, the originator’s bank will debit the originator’s account, unless the originator has provided his bank with some other means of reimbursement, and credit the beneficiary’s account where it is held at the same bank, or, where the beneficiary’s account is held at another bank, forward a payment order to the beneficiary’s bank, which will credit the beneficiary’s account.¹⁶

A debit transfer represents a “pull” of funds from the beneficiary to the originator. The beneficiary conveys instructions to his bank to collect funds from the originator. These instructions may be initiated by the originator himself and passed on to the beneficiary, for example, as happens with the collection of cheques; alternatively, they may be initiated by the beneficiary himself pursuant to the originator’s authority as happens with direct debit. On receipt of instructions from the beneficiary, the beneficiary’s bank usually provisionally credits the beneficiary’s account which will debit the originator’s account. The credit to the beneficiary’s account becomes final when the debit to the originator’s account becomes irreversible.¹⁷

From the description above, it can be seen that the main distinction between credit and debit transfer is that the direction of information/communication flow for the payment

¹⁶ Ellinger, E. Peter. Lomnicka, Eva & Hooley, Richard, *Ellinger’s Modern Banking Law*, (4th ed., Oxford: Oxford University Press, 2006), p. 515.

¹⁷ Id.

instructions is in opposite directions.¹⁸ In credit transfer, the payment instructions, along with funds, flow from the originator, via originator's bank, intermediary banks (if applicable), and beneficiary's bank, and eventually reaches the beneficiary. Contrarily, in debit transfer, the beneficiary initiates the payment instruction and sends it to his bank, which passes it to the originator's bank. The originator's bank debits the originator's account with that amount, and transfers it to the beneficiary's bank. The beneficiary might be credited with this amount before the transfer is received.

Debit transfer is commonly applied in the exchange of negotiable instruments where float is in existence; whilst large value electronic funds transfers is almost the synonym of credit transfer.¹⁹

In the context of the thesis, both Internet third party payment and Internet games virtual currency are credit transfers, because the payment instructions from payers/originators, along with funds or virtual currency, flow from the payers/originators' accounts, via Internet third party payment providers or Internet games operators, to reach the payees/beneficiaries' accounts. The information/communications flow is in the same direction with the funds/virtual currency flow (see part 3 of this chapter for details of the working mechanism of new electronic payment instruments).

1.4 Two basic payment systems: account-based system and cash-based system

Although there are various types and terms of payment systems, from a legal point of view, it is important to note that they generally fall into one of two categories. These categories of system will be described as "account-based" system and "cash-based" system.²⁰ The two

¹⁸ Reed, Chris, Walden, Ian, & Edgar, Laura, *Cross-border electronic banking: challenges and opportunities* (2nd ed., London LLP: 2000), p. 2.

¹⁹ Liu, Ying (刘颖) *Legal issues research on electronic funds transfer*, (Law Press China, 2001), p. 141.

²⁰ Tether, Trystan, "Payment Systems for E-Commerce", Reed, Chris, Walden, Ian & Edgar, Laura (ed.) *Cross-Border Electronic Banking: Challenges and Opportunities* (2nd ed., London Hong Kong: LLP, 2000), p. 181.

categories have their foundations long before the advent of the information technology and the Internet.²¹

During the development of the banking system as we know it at present, two different forms of payment mechanism evolved using the services of precious metal dealers. In the first form, if “A” wanted to make a payment to “B”, then “A” would deposit an amount of precious metal such as gold with a bullion dealer. “A” would make payment to “B” by giving an instruction to the dealer to hold a certain amount of the gold for the benefit of “B”. Payment would be completed when the bullion dealer acknowledged that instruction and agreed to be bound by it (the acknowledgement and agreed to be bound by the instruction issued by “A”, can be compared with and is similar to the authorisation process by today’s e-money system operators). “B” could then either go to the bullion dealer and require delivery of the gold that was now held on his behalf, or he could leave it with the dealer and use it as the deposit for a further payment transaction in which “B” was the payer. The system of payments by cheque that is used today is based on this original payment method and it is this payment methodology which underpins those new systems which will be described as “account-based”.²²

The second form of payment mechanism also involved “A” making a deposit of, say, gold with a bullion dealer. However, in this case “A” was issued with a certificate confirming the amount of gold which was being held on his behalf. A key feature of this certificate was that the bullion dealer accepted that the gold referred to in it would belong to whoever came to be the holder of the certificate (the certificate in today’s real economy is banknotes and coins; and in today’s e-money system, the certificate is the value stored in electronic device and held by the e-money owner). On this basis, “A” could make payment to “B” simply by transferring the certificate to “B” by whatever form of transfer was prescribed by the certificate. If the certificate was “payable” to the person named on the certificate or their order, then transfer was by means of writing B’s name on the certificate as the person to

²¹ Tether, Trystan, “Payment Systems for E-Commerce”, Reed, Chris. Walden, Ian & Edgar, Laura (ed.) *Cross-Border Electronic Banking: Challenges and Opportunities* (2nd ed., London Hong Kong: LLP, 2000), p.182.

²² Tether, Trystan, “Payment Systems for E-Commerce”, Reed, Chris. Walden, Ian & Edgar, Laura (ed.) *Cross-Border Electronic Banking: Challenges and Opportunities* (2nd ed., London Hong Kong: LLP, 2000), p. 182.

whom “A” was directing payment should be made. If the certificate was payable to “bearer”, then transfer could be effected simply by delivery of the physical certificate. It is this payment methodology which evolved into the banknote and it is the methodology which underpins those new systems which will be described as “cash-based”, albeit that the certificates we are thinking of consist of electronic impulses rather than pieces of payment.²³

It is also worth bearing in mind that some systems may inhabit a middle ground between the two approaches.²⁴

A typical account-based system works like this:²⁵

- Assuming that A and B enter into a transaction under which A is to supply some pay-per-view movie to B through the Internet;
- A and B each maintain accounts with an account-based system operator. B has provided the system operator with his credit/debit card details enabling the system operator to debit B’s credit/debit card to top up his account with the system when required;
- In order to make the pay-per-view movie payment to A, an instruction is given by B to the system operator which operates as an instruction to debit B’s account with the system and credit that of A. (If there are insufficient funds in B’s account to fully satisfy this debit, the system operator can debit B’s credit/debit card to top up the account);²⁶

²³ Tether, Trystan, “Payment Systems for E-Commerce”, Reed, Chris. Walden, Ian & Edgar, Laura (ed.) *Cross-Border Electronic Banking: Challenges and Opportunities* (2nd ed., London Hong Kong: LLP, 2000), p. 182.

²⁴ Tether, Trystan, “Payment Systems for E-Commerce”, Reed, Chris. Walden, Ian & Edgar, Laura (ed.) *Cross-Border Electronic Banking: Challenges and Opportunities* (2nd ed., London Hong Kong: LLP, 2000), p. 182. For example, the Visa organisation has experimented with both disposable anonymous cards and named-customer cards under the Visacash banner. Although technically similar and sharing the same processing at merchant level, the named-customer cards seem to be account-based while the disposable cards seem to be more like a cash-based system. See more information about the Visacash @ <http://www.visacash.org/> (8 January 2014).

²⁵ Tether, Trystan, “Payment Systems for E-Commerce”, Reed, Chris. Walden, Ian & Edgar, Laura (ed.) *Cross-Border Electronic Banking: Challenges and Opportunities* (2nd ed., London Hong Kong: LLP, 2000), p. 183.

²⁶ It should be noted that the action in this bracket is done by agreement between A and B only, but not a universal characteristic of every account-based system.

- On receipt of the instruction, the system credits and debits the accounts of A and B respectively and confirms to both parties that this has occurred. A can now supply the pay-per-view movie knowing that he has received payment.

A typical cash-based system works like this:²⁷

- A is a customer who wants to be able to use the system to make purchases;
- To do this, A is issued with software that will enable her to acquire and hold electronic “tokens” issued by the system on A’s hard drive. Alternatively (and possibly additionally), A is issued with a dedicated piece of hardware (such as a smart card) to hold the tokens on;
- A purchases tokens from the cash-based system operator which she then holds on her hard drive or smartcard. The money received by the system operator in respect of such purchases forms the “Float” which is then invested by it in assets which are readily realisable and low risk (the operator has to be aware of the possibility that all tokens may suddenly be redeemed at any time) but consistent with these restraints, provide the best available rate of return;
- A meets B and wants to purchase some products. Their respective hard drives (or smartcards) are put into communication with each other through the Internet and A’s hard drive transfers the agreed value of the electronic tokens to B;
- Having received those tokens, B can cash them in by transferring them back to the system operator in return for the system operator crediting a real world account with their proceeds. Alternatively, in some systems, he can use them again to make payment for something which he wishes to acquire from C.

The above classification of payment systems and distinction between account-based system and cash-based system stems from the original payment principles and models.

²⁷ Tether, Trystan, “Payment Systems for E-Commerce”, Reed, Chris. Walden, Ian & Edgar, Laura (ed.) *Cross-Border Electronic Banking: Challenges and Opportunities* (2nd ed., London Hong Kong: LLP, 2000), p. 190.

2 Chinese payment systems

2.1 A brief history and the development of the Chinese payment system

It is an objective law that the development level of a country's payment system is largely determined by the economic and financial development level of that country, especially its applications of computer science and technology in the economic and financial sectors. This objective law is also applied in the case of China.²⁸

The construction of the Chinese payment system has gone through four important stages which are the planned economy stage (1949-1978), the initial reform and opening up stage (1978-1992), the stage of 1992-2000, and the new century stage. The author would like to explain features of each stage in detail, so the readers will have a historical view on the Chinese payment system.

2.1.1 Planned economy stage (1949-1978)

During the planned economy stage in China, bank credit, payment and settlement were controlled by the State; commercial credit was restricted or even abolished; currency was circulated in accordance with the organisation and adjustment of the State. The principle of payment and settlement at this stage was “Money and goods must be cleared accordingly;²⁹ upholding both parties' legitimate rights; banks must not provide advance payment.”³⁰ The People's Bank of China was fully in charge of clearance, settlement and supervision. The functions of the People's Bank of China on payment and settlement at the planned economy stage were “correctly organising clearance, timely and precisely processing settlement, administrating settlement supervision and providing comprehensive feedbacks”. In this stage, bank settlement reflected the requirements of the planned economy: all funds transfers were

²⁸ Payment and Settlement Department of The People's Bank of China, *2006 China Payment System Development Report* (2006 中国支付体系发展报告) p. 6.

²⁹ The word “Accordingly” here should be understood as “simultaneously”. In other words, both money and goods must be paid on the real time basis, no procrastination is allowed.

³⁰ In current context, “Advance payment” means banks pay for someone in advance and expect to be repaid later.

concentrated within banks, private settlements were separated from public settlements,³¹ and a highly concentrated "Nationwide Affiliated Bank" clearance system was established. Administrative methods were widely applied to supervise payment services and economic activities.³²

2.1.2 Initial reform and opening up stage (1978-1992)

Since the Reform and Opening up of the Chinese economy in 1978, the government realised that state control posed problems because it might constrain the funds movements within the payment system so as to slow down the economy and social development. In order to match up with the pace of economic development and financial system reform, the Chinese government had adopted a series of reforms on the Chinese payment system,³³ which included reforming banks settlement, reforming interbank clearance system and establishing basic infrastructures for payment system.³⁴ As a result, the “state control” nature of the Chinese payment system gradually mitigated, and private companies started up and began to use the payment system.

2.1.3 The stage between 1992 and 2000

After the 14th National Congress of the Communist Party of China in 1992, with the rise of China’s comprehensive national power, the construction of the Chinese payment system had entered into a new stage.³⁵

³¹ It is the author’s speculation that private and public settlements are distinguished in accordance with the identifications of the payers and payees, as well as the purposes of the settlement.

³² Payment and Settlement Department of The People’s Bank of China, *2006 China Payment System Development Report* (2006 中国支付体系发展报告) p. 6.

³³ Payment and Settlement Department of The People’s Bank of China, *2006 China Payment System Development Report* (2006 中国支付体系发展报告) p. 7.

³⁴ Payment and Settlement Department of The People’s Bank of China, *2006 China Payment System Development Report* (2006 中国支付体系发展报告) p. 6-7.

³⁵ Payment and Settlement Department of The People’s Bank of China, *2006 China Payment System Development Report* (2006 中国支付体系发展报告) p. 7.

- First of all, in 1995, the “Law of People's Republic of China on the People's Bank of China”³⁶ was issued. The law entitled the People's Bank of China to fully administrate payment and clearance business, and maintain the operational security of payment system.
- Secondly, the “Negotiable Instruments Law of the People’s Republic of China (中华人民共和国票据法)”,³⁷ the “Measures on Negotiable Instruments Management (票据管理实施办法)”³⁸ and the “Measures on Payment and Settlement (支付结算办法)”³⁹ were issued. These legislations confirmed the leading position of the credit payment instruments within the payment system; and the use and regulation of payment instruments entered the rule of law stage.

2.1.4 New century stage (2000 and onwards)

Entering the 21th century, the construction and establishment of the Chinese payment system has stepped into an innovative and great-leap-forward development stage.⁴⁰

- Firstly, in 2003, the 3rd Plenary Session of the 16th National Congress of the Communist Party of China explicitly set up a clear objective that “...a unified, efficient and secure payment and clearance system must be established...” to replace the previous disunited and piecemeal system. The “Law of the People’s Republic of China on People’s Bank of China (中华人民共和国中国人民银行法)”⁴¹ was amended in 2003. The newly amended law stipulated that “the People’s Bank of

³⁶ See full English text @ http://www.pbc.gov.cn/publish/english/964/1954/19541/19541_.html (8 January 2014).

³⁷ See full text of the “Negotiable Instruments Law of the People’s Republic of China”, which was adopted in 1995 and took effect on 1996, can be read @ http://www.pbc.gov.cn/publish/english/964/1952/19525/19525_.html (8 January 2014). Full Chinese text of the “Negotiable Instruments Law of the People’s Republic of China”, which was amended in 2004, can be read @ http://news.xinhuanet.com/zhengfu/2004-08/30/content_1924446.htm (8 January 2014).

³⁸ See full Chinese text @ <http://www.chinaacc.com/new/63/69/114/1997/6/ad40989011172679911323.htm> (8 January 2014).

³⁹ See full Chinese text @ <http://www.pbc.gov.cn/rhwg/19971601f.htm> (8 January 2014).

⁴⁰ Payment and Settlement Department of The People’s Bank of China, *2006 China Payment System Development Report* (2006 中国支付体系发展报告) p. 8. @ http://www.pbc.gov.cn/publish/zhifujiesuansi/1071/1909/19093/19093_.html (8 January 2014).

⁴¹ See full English text @ http://www.pbc.gov.cn/publish/english/964/1954/19541/19541_.html (8 January 2014).

China is in charge of ensuring the normal operation of payment and settlement systems”.⁴² Thereafter, in June 2005, the People’s Bank of China had accomplished nationwide application of the “Large Value Real Time Payment System”.⁴³ One year later, in June 2006, the People’s Bank of China’s “Small Value Batch Payment System”⁴⁴ had been accomplished and promoted to the whole country.

- Secondly, non-cash payment instrument, such as bills of exchange, promissory notes, cheques and bank cards are becoming increasingly popular. Bank cards are now the most widely used non-cash payment instrument. In April 2005, jointly with nine other departments and commissions, the People’s Bank of China issued the “Several Opinions on Promoting the Development of Bank Cards Industry (关于促进银行卡产业发展的若干意见)”,⁴⁵ which attempted to further create favourable policy environment for bank cards development. The motivation behind this movement was that the Chinese government realised that non-cash payment and bank cards payment would be the development trend in the world; and the practical benefits for the Chinese economy would include reducing the circulation of cash, reducing transaction costs, elevating anti-money laundering, stimulating consumption and so on so forth.⁴⁶
- Thirdly, and importantly for this thesis, emerging competition in payment services market has taken off since 2000. With the boom of computer technology, electronic communication technology, ubiquitous presence of Internet and electronic commerce, traditional banking/financial institutions gradually started to share some parts of payment and clearance services to some non-financial institutions which possessed technological comparative advantages. Some non-financial institutions gradually became specialised payment and clearance entities. Thus, Internet payment

⁴² Art. 4 (9), the Law of People’s Republic of China on the People’s Bank of China, see full English text @ http://www.pbc.gov.cn/publish/english/964/1954/19541/19541_.html (8 January 2014).

⁴³ See full introduction of the “Large Value Real Time Payment System” @ http://www.pbc.gov.cn/publish/goutongjiaoliu/3398/2011/20110519165827712141586/20110519165827712141586_.html (8 January 2014).

⁴⁴ See full introduction of the “Small Value Batch Payment System” @ http://www.pbc.gov.cn/publish/goutongjiaoliu/3398/2011/20110519170049808207831/20110519170049808207831_.html (8 January 2014).

⁴⁵ “Several Opinions on Promoting the Development of Bank Cards” (“关于促进银行卡产业发展的若干意见”) See full Chinese text @ http://news.xinhuanet.com/zhengfu/2005-05/08/content_2929103.htm (8 January 2014).

⁴⁶ Article 1 of “Several Opinions on Promoting the Development of Bank Cards” (“关于促进银行卡产业发展的若干意见”).

(especially Internet third party payment), virtual currency payment, mobile payment, telephone payment and more and more new payment instruments have been created. This thesis will focus on the Internet third party payment and virtual currency payment, and there will be extensive discussion in the rest of the chapter and the following chapters.

- Fourthly, the People's Bank of China has evidently strengthened the regulation and supervision of payment and settlement. For example, in 2003, it issued "Measures of Management on RMB Bank Settlement Accounts" ("人民币银行结算账户管理办法").⁴⁷ In 2005, "Guidance on Electronic Payment (No. 1)" ("电子支付指引第一号")⁴⁸ was issued by the People's Bank of China to initially establish a monitoring and management framework for emerging electronic payment business.

In sum, the above four main development stages of the Chinese payment system since the foundation of the People's Republic of China in 1949 has transformed the Chinese system from one which mainly discharged obligations between State institutions to a system which is regulated explicitly, involves the private sector to a far greater extent, and relies on non-banks as well as banks for its functioning. As the latest development trend of the Chinese payment system—the new electronic payment services, the author will provide detailed analysis in this chapter below, and relevant legal analysis from chapter 2 to chapter 7 in the thesis.

3. An analytical introduction to new electronic payment in the Internet era in contemporary China

According to whether or not a system is circulating and transferring payments denominated in the Chinese currency -- Renminbi, new electronic payment instruments can be divided into

⁴⁷ See full Chinese text @ http://news.xinhuanet.com/zhengfu/2003-04/25/content_849885.htm (8 January 2014).

⁴⁸ See full Chinese text @ http://news.xinhuanet.com/ec/2005-10/31/content_3706110.htm (8 January 2014).

two main categories: Renminbi new electronic payment services⁴⁹ and virtual currency new electronic payment services.

3.1 Categorizations of Renminbi new electronic payment

3.1.1 Internet as a new window to facilitate Renminbi transfers, where Internet third party payment providers are not involved

3.1.1.1 Internet banking transfer payment

First of all, Internet banking transfer payment is the simplest and earliest model of electronic payment, which uses established currencies. It could occur either intra-bank or between banks (inter-bank). The inter-bank transfer mechanism requires the cooperation of different banking transfer systems. In this payment model, the Internet merely acts as a “window” or a “channel” to facilitate funds transfers which are carried out via existing interbank networks. Payment instructions are issued through the Internet rather than by paper or in person. Originators (customers) need to have the beneficiary’s (merchant/business)’ bank account details⁵⁰ (such as sort codes, account numbers, the Society for Worldwide Interbank Financial Telecommunication (SWIFT)⁵¹ numbers, International Bank Account Number (IBAN) and bank addresses) to make transfers. Substantially, this funds transfer model is “credit transfer”, and funds are “pushed” from the originator to the beneficiary⁵² see part 1.3 of this chapter which explains the two basic funds transfer concepts—“credit transfer” and “debit transfer”.

⁴⁹ In China, Renminbi is the legitimate currency. Although the system is called “RMB new electronic payment services”, some other foreign legitimate currencies must not be excluded, such as Great Britain Pounds and United States Dollars. It is likely that more and more RMB new electronic payment services will be able to support foreign currencies payment, especially the US Dollars.

⁵⁰ Banks cards can also be used by paying and receiving funds.

⁵¹ SWIFT is a member-owned cooperative through which the financial world conduct its business operations with speed, certainty and confidence. More than 9700 banking organisations, securities institutions and corporate customers in 209 countries trust SWIFT to exchange millions of standardised financial messages. See more details about SWIFT @ http://www.swift.com/about_swift/company_information/index.page? (8 January 2014).

⁵² (1) The originator initiates a payment instruction⁵² to the originator’s bank through the Internet interface (websites) provided by the originator’s bank;
(2) The originator’s bank receives the payment instruction;
(3) The originator’s bank accepts the payment instruction;
(4) The originator’s bank debits the originator’s bank account in accordance with the payment instruction;
(5) The originator’s bank issues a payment instruction to the intermediary bank; (If the originator’s and the beneficiary’s bank have no direct links, namely, they have not maintained correspondents accounts with each other, one or more intermediary banks have to be used to establish the bridge between them)

3.1.1.2 Direct connection between Internet businesses and Internet banking

The second model is payment through direct connection between Internet businesses and Internet banking where the business beneficiary issues an instruction to its own bank to take the payment from the customer originators' bank account or credit card account. (This model is equivalent, in part, to the UK Direct Debit⁵³). This model directly connects Internet merchants with Internet payment gateways⁵⁴ of commercial banks.

Giving an example of purchasing calling credits in Skype,⁵⁵ a customer inputs his credit/debit card details into Skype's website,⁵⁶ Skype will withdraw the relevant amount of funds from the customer's bank account attached to his credit/debit card. Substantially, this payment model is "debit transfer", and funds are "pulled" by the business beneficiaries from the customer originators.

3.1.2 Internet third party payment

3.1.2.1 Internet third party gateway payment

Internet third party gateway payment is a relatively sophisticated Internet payment model. In this model, a payment gateway is an e-commerce application service provider that authorizes

(6) The intermediary bank receives the payment instruction;

(7) The intermediary bank accepts the payment instruction; (if there is more than one intermediary bank involved, then the process of issuing payment instructions, receiving and accepting the payment instructions will repeat again),

(8) The intermediary bank issues a payment instruction to the beneficiary's bank,

(9) The beneficiary's bank receives the payment instruction,

(10) The beneficiary's bank accepts the payment instruction,

(11) The beneficiary's bank credits the beneficiary's account,

(12) The beneficiary's bank makes the funds available to the beneficiary,

(13) The fund is accessible to the beneficiary through either/both Internet or/and in branches.

⁵³ See more about the UK direct debit @ <http://www.ukdirectdebit.com/> (8 January 2014).

⁵⁴ It should be noted that the "Internet payment gateways of commercial banks", which are incorporated within commercial banks and legally belongs to the commercial banks, are different from "third party Internet payment gateways" in the third category, which are a separate independent legal entities.

⁵⁵ Skype is an influential software programme that allows users to make calls over the Internet to other Skype users free of charge. @ <http://www.skype.com/intl/en-gb/> (8 January 2014).

⁵⁶ For sure, Skype also accepts alternative payment methods, such as Paypal payment, which falls into the Internet third party payment category.

payments for e-businesses, Internet retailers, bricks and clicks, or traditional brick and mortar. It is the equivalent of a physical point of sale terminal located in most retail outlets. Payment gateways encrypt sensitive information, such as credit/debit cards numbers, to ensure that information passes securely between the customer and the merchant. A payment gateway facilitates the transfer of information between a payment portal (such as a website or interactive voice response (IVR) service) and the Front End Processor or acquiring bank; quickly and securely. When a customer orders a product from a payment gateway enabled merchant, the payment gateway performs a variety of tasks to process the transaction; these are completely invisible to the customer.⁵⁷

⁵⁷ A more detailed description of how a payment gateway works is as follows:

- A customer places order on website by pressing the “Submit Order” or equivalent button, or perhaps enters their card details using an automatic phone answering service;
- If the order is via a website, the customer’s web browser encrypts the information to be sent between the browser and the merchant’s webserver. This is done via Secure Socket Layer (SSL) encryption.
- The merchant then forwards the transaction details to their payment gateway. This is another SSL encrypted connection to the payment server hosted by the payment gateway.
- The payment gateway which receives the transaction information from the merchant forwards it to the processor used by the merchant’s acquiring bank.
- The process forwards the transaction information to the card association (i.e., Visa/Master Card)
- (If an American Express or Discover Card was used, then they act as the acquiring bank and directly provide a response of approved or declined to the payment gateway.)
- The card association routes the transaction to the correct card issuing bank.
- The credit card issuing bank receives the authorization request and sends a response back to the payment gateway (via the same process as the request for authorization) with a response code. In addition to determining the fate of the payment, (i.e. approved or declined) the response code is used to define the reason why the transaction failed (such as insufficient funds, or bank link not available)
- The payment gateway receives the response, and forwards it on to the website (or whatever interface was used to process the payment) where it is interpreted and a relevant response then relayed back to the cardholder and the merchant.
- The entire process typically takes 2-3 seconds.
- The merchant must then ship the product prior being allowed to request to settle the transaction.
- The merchant submits all their approved authorization, in a “batch”, to their acquiring bank for settlement.
- The acquiring bank deposits the total of the approved funds in to the merchant’s nominated account. This could be an account with the acquiring bank if the merchant does their banking with the same bank, or an account with another bank.
- The entire process from authorization to settlement to funding typically takes a few days, which varies from different banking systems and card associations.

In addition to payment services, many payment gateways also provide tools to automatically screen orders for fraud and calculate tax in real time prior to the authorization request being sent to the processor. This is done by the gateway prior to the authorization request being sent to the processor. Tools to detect fraud include geolocation, velocity pattern analysis, delivery address verification, computer finger printing technology, and identity morphing detection

@ http://en.wikipedia.org/wiki/Payment_gateway (8 January 2014). Although it is suggested that reference from Wikipedia should be used cautiously, the author has found this reference is particularly helpful in the current context.

There are at least three advantages to merchants of using an Internet third party payment gateway. First, it provides a single contracting point, so that Internet merchants need only maintain one contracting point with one payment gateway, rather than merchants/sellers needing to obtain Internet payment services from all major commercial banks, such as China Merchant Bank, Industrial and Commercial Bank of China, etc.⁵⁸

Second, in practice, considering risk, limit of human resources and technological and financial cost, commercial banks are only willing to provide Internet payment services to and establish cooperation relationships with big and influential Internet merchants, such as Amazon and Dangdang;⁵⁹ rather than directly providing Internet payment services to the very large number of medium/small-sized Internet sellers or individual Internet sellers. However, those medium and small-sized and individual sellers do have strong demand on Internet payment from commercial banks. Thus, the Internet third party payment gateway, which collects and integrates large number of medium/small-sized Internet sellers and individual Internet sellers, could act as a big-sized middle-man to obtain Internet payment services from commercial banks. In short, payment gateways are bridges between commercial banks and small sellers in B2C and C2C transactions.⁶⁰

The third advantage of the Internet payment gateway is protecting security and privacy of customers' financial data from the Internet merchants/sellers, which means the Internet merchants/sellers will not be able to see or monitor their customers' financial data and transaction record. It can greatly enhance customers' confidence to purchase from less reputable Internet merchants and individual sellers.

⁵⁸ Although, in practice, powerful and able Internet merchants tend to not only employ more than one Internet third party payment gateway, but also obtain Internet payment services from major leading commercial banks. For example, see payment methods of Skype China @ http://skype.tom.com/products/redeem/index.html?type=image&product_id=image_ljgm&product_count=0 (8 January 2014).

⁵⁹ Dangdang.com is the largest Chinese Internet shopping mall in the world. See <http://www.dangdang.com/> (8 January 2014).

⁶⁰ See Chapter one of "Some suggestions on elevating YeePay's competitive advantages" by Sun Wen (孙文), who was a former staff from YeePay. The paper, "Some suggestions on elevating YeePay's competitive advantages" was an excellent and detailed business paper on electronic payment written by him after working in electronic payment industry for a long time, and Chapter one, two and three of this paper is available @ <http://sunwen.net/> (8 January 2014).

3.1.2.2 Virtual accounts payment

The virtual accounts payment is another form of Internet third party payment model. It is to build a series of virtual accounts, held by non-banks (such as Alipay, YeePay, and Paypal), between Internet traders. This sort of virtual account plays the similar functions as traditional bank accounts do.

Specifically, the virtual accounts payment can be further divided into two categories,⁶¹ which are direct payment model and third party assurance model (indirect payment model). Paypal is a good example of the direct payment model, when bank account A transfers funds to a virtual account A in Paypal, this virtual account A will *directly* transfer the funds to the recipient's virtual account B in Paypal, and after that, the recipient's real commercial bank account B shall be credited accordingly. However, in the third party assurance model, the third party does not only transfer funds, but also act as an assurance agency for both customers and Internet merchants/sellers. Below are the six steps whereby funds are transferred through third party assurance model:

- 1), two parties, which could be either consumer and business, or customer and customer, or business and business, reach an agreement for a transaction;
- 2), the buyer transfers the fund to an Internet third party provider where he/she has registered; for example, Alipay.
- 3), the Internet third party provider notifies the seller by saying that relevant fund has been received;

⁶¹ It is also reasonable to split the fourth type of Internet payment (virtual accounts model) into two, so that the Internet payment consists of five major categories.

- 4), the seller should deliver the goods to the buyer within a period of time agreed by them;
- 5), the buyer shall notify the third party when he/she receives the goods;
- 6), the Internet third party provider should transfer relevant fund to the seller either immediately or within a period of time agreed by the buyer and seller with the Internet third party provider. This is a type of escrow service.

From what has been analysed above, the Internet third party payment providers (including Internet payment gateway model and virtual account model) in China possess three key characteristics:⁶²

- Due to the existence of Internet third party provider, customers' sensitive financial data and financial record will not be disclosed to Internet merchants directly, which, to a great extent, has reduced transaction risks for customers;
- Internet third party providers are not directly involving in purchasing and sales of goods and services, therefore, they could keep a neutral, independent, and fair position to uphold all parties' legitimate rights;
- Accredited third party providers will only provide payment services to qualified Internet merchants that has been "legitimated registered", which will greatly enhance customers' confidence in doing Internet shopping. Here, there are two layers of meanings on "legitimated registered Internet merchants". One is that the Internet merchants/sellers themselves have been legitimated registered under the requirements of relevant Chinese commercial law and administrative law (which deal with traditional offline merchants⁶³). This has been emphasized by "Guidelines on Online Trading (provisional)" issued by the Ministry of Commerce, People's Republic of

⁶² Dong, Guozhe (董国喆), "Survival and Development of Third Party Payment Service Providers" @ <http://www.e-gov.org.cn/dianzishangwu/hangyedianzishangwu/200707/67542.html> (8 January 2014).

⁶³ Primarily, the Company Law of People's Republic of China and its relevant administrative rules.

China on 6th of March, 2007.⁶⁴ The other meaning of “legitimated registered Internet merchants” is those Internet merchants who open up their business on Internet merchants platform providers, and properly registered on those platform providers, such as Taobao.com (China’s largest C2C trading platform provider, which belongs to the Alibaba group). Taobao.com requests all sellers to register by verifying their real names along with their Chinese national ID cards and numbers as well as sellers’ bank accounts details⁶⁵.

3.2 Virtual currency new electronic payment

In the part 3.1 of this chapter, the author has explained the first category of new electronic payment instrument. The second category of new electronic payment instrument -- virtual currency -- possesses different essential features.

First of all, the “Renminbi new electronic payment” in which case all funds transferred within the system are denominated in legitimate currency -- Renminbi (or other legitimate currencies, such as the US Dollars/GB Pound). However, in the virtual currency new electronic payment services, value being transferred within the system is neither denominated in Renminbi nor in other legitimate currencies; instead, the virtual currency is denominated in non-legitimate currencies. For example, the virtual currency issued by Tencent⁶⁶ is denominated in Q coins; the virtual currency issued by Baidu⁶⁷ is denominated in Baidu coins, etc.

Secondly, Renminbi is issued by the People’s Bank of China – the Chinese Central Bank on behalf of the Chinese government. There is only one issuer which can issue Renminbi legally in China. However, virtual currency is issued by private Internet companies, and there could

⁶⁴ See the full text of the Guidelines in Chinese @ <http://eb.mofcom.gov.cn/aarticle/ab/c/200809/20080905807009.html> (8 January 2014).

⁶⁵ See the process of registration and verification @ <http://service.taobao.com/support/9723.htm> (8 January 2014).

⁶⁶ Founded in November, 1998, Tencent, Inc. has grown into China’s largest and most used Internet service portal. See more details about Tencent @ <http://www.tencent.com/> (8 January 2014).

⁶⁷ Baidu is the leading Chinese search engine in the world. See more details about Baidu @ <http://ir.baidu.com/phoenix.zhtml?c=188488&p=irol-homeprofile> (8 January 2014).

be dozens of or even hundreds of companies that can issue their own virtual currencies legally in China.

Thirdly, majority of Renminbi is used and circulated in the real economy, but majority of virtual currency is used and circulated in the Internet, especially within Internet companies' platforms and Internet games.

To date, there is no universal definition for virtual currency, with a global perspective, the author defines virtual currency as “a kind of newly emerging electronic payment instrument issued by Internet companies to be used by their users in relevant Internet companies' platforms or online games (especially massively multiplayer online role-playing games) to perform most economic functions as states-issued currency serves in the real world.”

The author will extensively discuss the virtual currency and its regulation at Chapters 4 & 5 of the thesis.

4. Conclusion

The author has extensively discussed the basic concepts of money, payment, Chinese payment systems and payment system models in this chapter. Since the theme of the thesis is “new electronic payment in China”, in the following chapters, the author will focus on researching the two main types of new electronic payment instruments in China, namely, the Internet third party payment and Internet games virtual currency in depth. There are two main reasons why these two types of new electronic payment instruments are selected. The first reason is because of their size and growing speed makes them important and influential. In chapter 4, 5 and 6, there are concrete data which shows their significance and influence. The second reason is because relevant regulation on new electronic payment is in a piecemeal and uncoordinated manner which needs to be examined systemically. Some of the drawbacks of the current regulation on new electronic payment services need to be pointed out for further improvement as well.

Other parts of the Chinese payment system are ignored in the thesis. For example, the Chinese law on bank cards is not discussed, because bank cards links to bank accounts. The phenomenon of bank accounts is not new, it has been widely used long before the advent of the Internet, so it is outside the scope of the “new electronic payment”.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

Introduction

Regulation contents constitute a significant part of the thesis. Therefore, it is necessary to use a separate chapter to illustrate fundamental theoretical issues relating to regulation, banking and financial regulation, and specifically the regulation of payment system and new electronic payment services in China. Part 1 of this chapter deals with general theoretical issues on regulation, i.e. “what is regulation?” “why regulate?” and “what is a good regulation?” Part 2 of this chapter addresses theoretical issues on the banking and financial regulation and its relevance to the regulation of new electronic payment services, i.e. “what are banking regulation and banking supervision?”, “why the banking and financial sector is regulated?”, “to what extent, the rationales and justifications of banking and financial regulation can be applied to the regulation of new electronic payment services?”. The regulatory aims and principles on general payment services based on the “Core Principles for Systemically Important Payment Systems” issued by the Bank for International Settlement are analysed in part 3 of this chapter. Part 4 of this chapter specifically proposes what elements and regulatory principles should be considered in a good regulation of new electronic payment in China.

1. General theory of regulation

1.1 What is regulation?

Similar to the word “money”, the word “regulation” is another word which is easy to identify but rather more difficult to define. As one of the leading authorities in the area of regulation, Professor Robert Baldwin suggests that although “regulation is often spoken of as if an

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

identifiable and discrete mode of governmental activity,” “it is useful to think of the word regulation being used in the following different senses”:¹

- “As a specific set of commands – where regulation involves the promulgation of a binding set of rules to be applied by a body devoted to this purpose. An example would be the health and safety at work legislation as applied by the Health and Safety Executive.
- As deliberate state influence – where regulation has a more broad sense and covers all state actions that are designed to influence business or social behaviour. Thus, command-based regimes would come within this usage, but so also would a range of other modes of influence – for instance, those based on the use of economic incentives (e.g. taxes or subsidies); contractual powers; deployment of resources, franchises; the supply of information, or other techniques.
- As all forms of social or economic influence – where all mechanisms affecting behaviour – whether these be state-based or from other sources (e.g. markets) – are deemed regulatory. One of the great contributions of the theory of ‘smart regulation’ has been to point out that regulation may be carried out not merely by state institutions but by a host of other bodies, including corporations, self-regulators, professional or trade bodies, and voluntary organizations.
- Regulation is often thought of as an activity that restricts behaviour and prevents the occurrence of certain undesirable activities. The broader view is, however, that the influence of regulation may also be enabling or facilitative.”²

In the context of the thesis, the word regulation primarily addresses the relationship between governments (the Chinese government and EU/UK governments) and participants in new

¹ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 3 & 4.

² Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 4.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

electronic payment market, namely Internet third party payment providers and virtual currency stakeholders.

1.2 Why regulate?

After clarifying the meaning of “regulation”, it is crucial to understand why a state might want to regulate. From the general theoretical perspective, Professor Robert Baldwin has beautifully and artistically identified 13 fundamental and basic rationales for regulation. By standing on the shoulders of a regulation theory giant, it is helpful to assess each rationale against the theme of the thesis – “the regulation of new electronic payment in China”, and to decide which rationales can be applied to justify the regulation of new electronic payment in China; and which rationales cannot.

1.2.1 Monopolies and natural monopolies

Monopolies and natural monopolies is the first rationale for regulation. Professor Robert Baldwin points out that “Monopoly describes the position in which one seller produces for the entire industry or market. Monopoly pricing and output is likely to occur and be sustained where three factors obtain:

- A single seller occupies the entire market.
- The product sold is unique in the sense that there is no substitute sufficiently close for consumers to turn to.
- Substantial barriers restrict entry by other firms into the industry, and exit is difficult.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

A natural monopoly occurs when economies of scale available in the production process are so large that the relevant market can be served at the least cost by a single firm.”³

The author suggests that, in the context of the thesis, the rationale of “monopolies and natural monopolies” cannot be applied to justify the regulation of Internet third party payment and Internet games virtual currency in China. Because, as always, there have been more than one (actually, a considerable number of) Internet third party payment providers and Internet games virtual currency issuers in the Chinese market, neither monopoly nor natural monopoly exists. For example, the Chinese official news agency, Xinhuanet reported that, there are over 100 Internet third party payment providers in the market by the end of 2011.⁴ A leading Internet industry research company, Iresearch also reported that, by July 2011, there are several hundreds of virtual currencies issued by a number of Internet companies existing in the Chinese Internet games market.⁵

In addition to the number of market participants, a further thought on the monopoly issue is that there can still be a monopoly even if there are 1000 participants. This would occur if one of them was so much bigger than the rest that it could dictate the market. By the end of 2011, data shows that Alipay, Tenpay and ChinaPay are the largest market players which took up 46.0%, 21.2% and 10.8% of the proportion of Chinese Internet third party payment market respectively.⁶ The data shows that no one provider may dictate the whole market.

1.2.2 Windfall profits

A windfall profit is another rationale of regulation. Professor Robert Baldwin argues that “A firm will earn a windfall profit (sometimes called an ‘economic rent’ or excess profit) where it finds a source of supply significantly cheaper than that available in the marketplace. It may

³ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 15 & 16.

⁴ “Over 100 third party payment companies have obtained licenses in China” @ http://news.xinhuanet.com/tech/2012-01/01/c_122523229.htm (8 January 2014).

⁵ “The virtual currency of Sina joins the currency war, which virtual currency will depreciate?” @ <http://ec.iresearch.cn/54/20110719/144865.shtml> (8 January 2014).

⁶ See the data from Analysis International @ http://data.eguan.cn/yiguanshujv_126325.html (8 January 2014).

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

do so by, say, locating a rich seam of an easily extracted mineral; by coming upon a material efficiency in a production process; or by possessing an asset that suddenly escalates in value – for example, a boat in a desert town that has been flooded. Regulation may be called for when it is desired either to transfer profits to taxpayers or to allow consumers or the public to benefit from the windfall.”⁷

In other words, the concept of windfall profits is that one player in a market gains a sudden advantage over the others, or alternatively that all the players suddenly benefit from something which increases their profits. The “windfall” in the context of the thesis, if there is one, is the Internet, but this has not suddenly given an advantage to payment providers. Rather it has encouraged new market entrants, who all benefit the same from the existence of the internet. Since it has encouraged new market entrants, it is necessary to establish and maintain an appropriate entry threshold system for all market entrants. In the scenarios of the thesis, licencing for Internet third party payment providers, which corresponds to this point, is extensively discussed in part 3.1 in chapter 4 of the thesis.

1.2.3 Externalities

The existence of externalities is also an important rationale for regulation. Professor Robert Baldwin argues that “the reason for regulating externalities (or ‘spillovers’) is that the price of a product does not reflect the true cost to society of producing that good, and excessive consumption accordingly results. Thus, a manufacturer of car tyres might keep costs to consumers down by dumping pollutants arising from the manufacturing process into a river. The price of the tyres will not represent the true costs that production imposes on society if clean-up costs are left out of account. The resultant process is wasteful because too many resources are attracted into polluting activities (too many tyres are made and sold) and too few resources are devoted by the manufacturer to pollution avoidance or adopting pollution-free production methods. The rationale for regulation is to eliminate this waste – and to

⁷ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 16.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

protect society or third parties suffering from externalities – by compelling the internalization of spillover costs – on ‘polluter pays’ principles”⁸

Actually, the author would like to add that externalities consist of two sides – positive externalities and negative externalities. In the last paragraph, Professor Robert Baldwin suggests that the negative externalities is a rationale for regulation (environment pollution is usually used as an example to demonstrate negative externalities). The author suggests that positive externalities can also be a rationale for regulation in which case the regulation should seek to promote the development of relevant products/markets, rather than constrain their growth and expansion.

In the context of the thesis, the author suggests that, to a large extent, the emergence of the new electronic payment instruments is bringing about positive externalities. One of the most notable evidences is that, by using new electronic payment instruments, less and less paper will be used, so that less and less tree will be cut and more forest will be reserved. Generally speaking, a paperless society is environmental-friendly society. Another noticeable evidence is that new electronic payment instruments can substantially increase the speed of commercial transactions, and accelerate funds flow and information flow in electronic commerce. On the other hand, positive externalities, such as protecting the environment, brought about by the widespread of new electronic payment instrument could be considered as a rationale for the regulation, and the regulation should promote and foster the development of the new electronic payment instruments and maximise relevant positive externalities.

Negative externalities can also be used as a rationale for the regulation of the new electronic payment in China. An obvious example, which China is concerned about, is the social harm arising from gambling. If this is increased because Internet payment is available, that could justify some regulation. The regulatory provision relating to negative externalities of new

⁸ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 18.

electronic payment reflects in “Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games” which is discussed in part 4.1 in chapter 5 of the thesis.

1.2.4 Information inadequacies

Information inadequacies is another important rationale for regulation. Professor Robert Baldwin points out that “competitive markets can only function properly if consumers are sufficiently well informed to evaluate competing products. The market may, however, fail to produce adequate information and may fail for a number of reasons:

- Information may cost money to produce (e.g. because researching the effects of a product, such as a drug, may prove expensive).
- The producer of information, however, may not be compensated by others who use that information (e.g. other manufacturers of the drug).
- The incentive to produce information may accordingly be low.
- There may also be incentives to falsify information – where, for example, consumers of the product are ill-positioned to challenge the falsification and seek remedies for damages suffered or where they face high costs in doing so.
- Areas in which consumers purchase a type of product very infrequently may give rise to this problem.
- The information produced may, in addition, not be of sufficient assistance to the consumer – for instance, because the consumer lacks the expertise required to render technical data useful.
- Collusion in the marketplace, or insufficient competition, may reduce the flow of information below the levels consumers might want. Producers, as a group, may thus fail to warn consumers about the general hazards or deficiencies associated with a product.

Regulation, by making information more extensively accessible, accurate, and affordable, may protect consumers against information inadequacies and the consequences thereof, and may encourage the operation of healthy, competitive markets.”⁹

The author suggests that the “information inadequacies” argument could be a rationale for regulating new electronic payment market. Because, although China has already been the largest Internet market in the world with over 500 million Internet users and 167 million Internet payment users by the end of 2011,¹⁰ the population of China – 1.4 billion, means that 900 million people are still not using the Internet and over 1.2 billion people are still not using any kinds of Internet payment instruments. In other words, most people are still Internet illiterate and Internet payment illiterate in China. However, the growth rate of Internet payment users from 2010 to 2011 is 21.6%.¹¹ This means that more and more people are newly involved in the Internet payment, for consumer protection reason, all of them need adequate information about the Internet payment they are using. Additionally, the working mechanism of payment systems is outside the experience of most Internet users. So there are information inadequacies for all payment systems, online or offline (except cash). Add in the internet and the general public have further inadequacies. Therefore the “information inadequacies” could very well justify the regulation of the Internet payment instruments.

A relevant example of regulatory provision for payment providers the “information inadequacies” rationale justifies is article 19 in the “Measures of Management on Non-Financial Institutions Payment Services”. The article requires payment institutions should publicly disclose the fee-charging items and fee-charging standards of their payment services.

⁹ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 18 & 19.

¹⁰ China Internet Network Information Center (CNNIC), the 29th “Statistic Report on the Development of Chinese Internet” (January 2012), p. 32. @ <http://www.cnnic.cn/dtygg/dtgg/201201/W020120116337628870651.pdf> (8 January 2014).

¹¹ China Internet Network Information Center (CNNIC), the 29th “Statistic Report on the Development of Chinese Internet” (January 2012), p. 32. @ <http://www.cnnic.cn/dtygg/dtgg/201201/W020120116337628870651.pdf> (8 January 2014).

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

The aim of article 19 is to prevent “information inadequacies” from happening so as to protect customers’ interest, e.g. not to be over-charged or charged without prior consent.

1.2.5 Continuity and availability of service

Regarding continuity and availability of service, Professor Robert Baldwin argues that “in some circumstances, the market may not provide the socially desired levels of continuity and availability of service. Thus, where demand is cyclical (for example, as with passenger air transport to a holiday island) waste may occur as firms go through the processes of closing and reopening operations. Regulation may be used to sustain services through troughs – for example, by settling minimum prices at levels allowing the covering of fixed costs through lean periods. This would be justified where the extra costs imposed on consumers by pricing rules are less than those caused by the processes of closing and opening services in response to the business cycle”¹²

The author suggests the rationale of “continuity and availability of service” does not apply to new electronic payment instruments. Because the Internet service is provided on the basis of 24 hours per day + 7 days per week + 365 per year. There is no such closing and reopening business cycle existing neither in Internet third party payment nor in Internet games virtual currency, once the service is available online. They are always-on service (unless some technique defaults occur). Furthermore, in terms of cost, the difference between Internet payment services and other services is that almost all costs in the Internet payment services are in setting up the computing infrastructure and commercial relationships, and that running costs are largely fixed irrespective of volume of service – very unlike other services where the more services provided, the higher costs to the service provider. Thus to keep the systems running at times of low demand (overnight perhaps) is a trivial expense.

1.2.6 Anti-competitive behaviour and predatory pricing

¹² Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 19.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

Anti-competitive behaviour and predatory pricing is another rationale for regulation, outlines by Professor Robert Baldwin, “Markets may be deficient not merely because competition is lacking: they may produce undesirable effects because firms behave in a manner not conducive to healthy competition. A principal manifestation of such behaviour is predatory pricing. This occurs when a firm prices below costs, in the hope of driving competitors from the market, achieving a degree of domination, and then using its position to recover the costs of predation and increase profits at the expense of consumers.”¹³

There is concrete evidence which could support that the rationale of “anti-competitive behaviour and predatory pricing” is a strong justification for the regulation of new electronic payment industry. One of the leading economic and financial newspapers in China, the “Economy Observer” cited an anonymous senior manager from a Shanghai third party payment provider, “Since the free service policies launched by Internet third party payment providers -- Alipay and Tenpay, the profit rate of other Internet third party payment providers has been diving dramatically, from the previous 1% - 2% to 0% or in some cases even minus profit rates.”¹⁴ The free service policies by Alipay and Tenpay might be regarded as an anti-competitive behaviour and predatory pricing behaviour.

Although, in theory, the “anti-competitive behaviour and predatory pricing” may be used as a rationale to justify regulating new electronic payment; in reality, the author has reviewed all relevant rules and Measures,¹⁵ it is not obvious to find a relevant example of regulatory provision for payment providers the “anti-competitive behaviour and predatory pricing” rationale justifies in current Chinese regulatory framework of the new electronic payment services. The author suggests that the reason behind the gap between the theory and reality is

¹³ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 19.

¹⁴ “Behind chaos, how third party payment makes profits?”, *Global Finance @* <http://finance.sina.com.cn/review/sbzt/20110228/14569444538.shtml> (8 January 2014).

¹⁵ These rules and Measures include “Measures of Management on Non-Financial Institutions Payment Services”, “Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games”, “Notice on Further Enhancing the Regulatory Work of Cyber Cafes and Internet Games”, an Official Reply by the China State Administration of Taxation on “individuals gain profits by trading virtual currency through the Internet must pay personal income tax”, A Public Announcement by the People’s Bank of China, and “Notice of Enhancing Regulatory Work on Internet Games Virtual Currency” and All these rules and Measures are extensively discussed in chapter 4 & 5 of the thesis.

that China is still in a transition¹⁶ from a command and centralised economy to a full market economy. It is not an economy where “perfect competition” happens. Therefore, when it comes to regulating specific areas, the government tends to focus on regulating the relationship between the government and companies (for example, through imposing licensing scheme), and regulating the relationship between companies and customers (for example, protecting the customers’ interest); but not focusing on regulating and adjusting relationships among companies themselves or regulating specific competition strategies.

1.2.7 Public goods and moral hazard

Public goods and moral hazard are important rationale for regulation. Professor Robert Baldwin summarizes that, “some commodities, e.g. security and defence services, may bring shared benefits and be generally desired. It may, however, be very costly for those paying for such services to prevent non-payer (‘free-riders’) from enjoying the benefits of those services. As a result, the market may fail to encourage the production of such commodities, and regulation may be required – often to overcome the free-rider problem by imposing taxes. Similarly, where there is an instance of moral hazard – where someone other than the consumer pays for a service – there may be excessive consumption without regard to the resource costs being imposed on society. If, for example, medical costs are not met by the patient, but by the state or an insurer, regulatory constraints may be required if excessive consumption of medical services is to be avoided.”¹⁷

The author suggests that, in the context of the thesis, this rationale cannot apply. Because new electronic payment services are not public good, and there is no “free-ride” or moral hazard phenomenon arising from either Internet third party payment or from Internet games virtual currency.

1.2.8 Unequal bargaining power

¹⁶ See part 1.5 of chapter 7 of the thesis for a bit more details about the transition.

¹⁷ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 20.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

In terms of unequal bargaining power, Professor Robert Baldwin argues that “One precondition for the efficient or fair allocation of resources in a market is equal bargaining power. If bargaining power is unequal, regulation may be justified in order to protect certain interest. Thus, if unemployment is prevalent it cannot be assumed that workers will be able to negotiate effectively to protect their interest, and regulation may be required to safeguard such matters as the health and safety of those workers.”¹⁸

The author suggests that the rationale of “unequal bargaining power” might be used to justify regulating the relationship between new electronic payment companies and their employers, and also it can be used to justify the relationship between the new electronic payment companies and consumers. Because, although as it has been discussed in part 1.2.1 of this chapter, there is no monopoly or natural monopoly existing in the new electronic payment market, to some extent, consumers may choose to vote with feet if they are unhappy with a particular service provider, there is a possibility that all market participants adopt common terms, e.g. about refunds, fraud, etc, in which case there is no consumer choice. We see this in cloud computing where all providers exclude their liability for data loss.¹⁹

An important regulatory provision for payment providers the “unequal bargaining power” rationale justifies is the “Notice of Enhancing Regulatory Work on Internet Games Virtual Currency” which adopts a strong consumer protection approach to balance the unequal bargaining power between payment services providers and customers. See part 4.5.5 of chapter 5 in the thesis for details.

1.2.9 Scarcity and rationing

¹⁸ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 20.

¹⁹ A further study has been done in the Queen Mary University of London cloud legal group @ <http://www.cloudlegal.ccls.qmul.ac.uk/> (8 January 2014), and a series of articles have been published. One of the relevant articles is Bradshaw, Simon, Millard, Christopher & Walden, Ianan, “Contracts for clouds: comparison and analysis of the terms and conditions of cloud computing services”, *International Journal of Law & Information Technology* 2011, 19 (3), 187-223.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

Scarcity and rationing could justify regulation as well. Professor Robert Baldwin argues that “Regulatory rather than market mechanisms may be justified in order to allocate certain commodities when these are in short supply. In a petrol shortage, for example, public interest objectives may take precedence over efficiency so that, instead of using pricing as an allocative instrument, the petrol is allocated with reference to democratically generated lists of priorities.”²⁰

When it comes to the scenario of the thesis, such “scarcity and rationing” rationale could not be applied as a rationale of regulating new electronic payment instruments, because there has never been any shortage of supply in modern China. From technologies to professional personnel, from market supply to consumers’ demand, scarcity and rationing is simply not the case in contemporary China where an economy has been sustainably growing for over 34 years with around 10% Gross Domestic Products (GDP) growth per year.

1.2.10 Rationalization and coordination

Rationalization and coordination is also a rationale for regulation. Professor Robert Baldwin argues that “In many situations, it is extremely expensive for individuals to negotiate private contracts so as to organize behaviour or industries in an efficient manner – the transaction costs would be excessive. The firms in an industry may be too small and geographically dispersed to bring themselves together to produce efficiently. (This might happen when small fishing concerns in a sparsely populated area fail to make collective marketing arrangements.) Enterprises may, moreover, have developed different and incompatible modes of production. In these circumstances, regulation may be justified as a means of rationalizing production processes (perhaps standardizing equipment in order to create effective networks) and in order to coordinate the market. Centralized regulation holds the advantage over individual private law arrangements, where information can be more efficiently communicated through

²⁰ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 20-21.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

public channels and economies of scale can be achieved by having one public agency responsible for upholding standards.”²¹

In the context of electronic payment instruments’ technique details, this rationale of “rationalisation and coordination” could be relevant because centralised regulatory measures could harmonise different techniques details and technological standards of electronic payment instruments and make them compatible with each other. Compatibility and interoperability,²² like openness, is something that we generally think of as a “good thing” in the context of information and communications technologies. One of the reasons why we tend to like interoperability is that we believe it leads to innovation, as well as other positive things like consumer choice, ease of use, and competition.²³

Similar to the “anti-competitive behaviour and predatory pricing” point discussed in part 1.2.6 of this chapter, although, in theory, the “rationalization and coordination” may be used as a rationale to justify regulating new electronic payment; in reality, it is not obvious to find a relevant example of regulatory provision for payment providers the “rationalization and coordination” rationale justifies in current Chinese regulatory framework of the new electronic payment services.²⁴ The author suggests that the reason behind the gap between the theory and reality is the same to the “anti-competitive behaviour and predatory pricing” point. China is still in a transition²⁵ from a command and centralised economy to a full market economy. It is not an economy where “perfect competition” happens. Therefore, when it

²¹ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 21.

²² In Berkman Center for Internet and Society at Harvard University, there is a specialised research group dedicated to the study of interoperability. @ <http://cyber.law.harvard.edu/research/interoperability> (8 January 2014).

²³ This argument is from Gasser, Urs & Palfrey, John, “Breaking down digital barriers, when and how ICT interoperability drives innovation”, Berkman Publication Series, November 2007, “Executive Summary” @ <http://cyber.law.harvard.edu/interop/pdfs/interop-breaking-barriers.pdf> (8 January 2014).

²⁴ The current Chinese regulatory framework consists of a series of rules and Measures which include “Measures of Management on Non-Financial Institutions Payment Services”, “Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games”, “Notice on Further Enhancing the Regulatory Work of Cyber Cafes and Internet Games”, an Official Reply by the China State Administration of Taxation on “individuals gain profits by trading virtual currency through the Internet must pay personal income tax”, A Public Announcement by the People’s Bank of China, and “Notice of Enhancing Regulatory Work on Internet Games Virtual Currency” and All these rules and Measures are extensively discussed in chapter 4 & 5 of the thesis.

²⁵ See part 1.5 of chapter 7 of the thesis for a bit more details about the transition.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

comes to regulating specific areas, the government tends to focus on regulating the relationship between the government and companies (for example, through imposing licensing scheme), and regulating the relationship between companies and customers (for example, protecting the customers' interest); but not focusing on regulating and adjusting relationships among companies themselves, in this point, not focusing on coordinating the relationships among different companies.

1.2.11 Planning

Planning is another reason for the regulation. Professor Robert Baldwin argues that “Markets may ensure reasonably well that individuals' consumer preferences are met, but they are less able to meet the demands of future generations or to satisfy altruistic concerns (e.g. the quality of an environment not personally enjoyed). There is also, as far as altruism is concerned, a potential free-rider problem. Many people may be prepared to give up some of their assets for altruistic purposes only if they can be assured that a large number of others will do the same. The problems and costs of coordination mean that regulation maybe required in order to satisfy such desires.”²⁶

When it comes to the Internet third party payment and Internet games virtual currency, such “planning” rationale is not strong enough because there is no immediate need to accommodate the demand of the future generation -- one generation for the Internet is as short as 2-3 years, while the traditional concept of a generation is usually 20-25 years. As far as altruism is concern, there is no free-ride problem exists either.

1.2.12 Other regulatory rationales

The above 11 regulation rationales are primarily based on market failure theory. Additionally, “it has been argued, notably by Professor Tony Prosser, that the market failure rationale does not adequately justify the range of regulatory activities that are commonly undertaken. He

²⁶ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 22.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

suggests, moreover, that the market failure analysis treats regulation as second-best to market allocation and that this does not properly explain or justify current practice.²⁷ Professor Tony Prosser, accordingly, points to the relevance of two further rationales for regulating – to protect human rights and to further social solidarity and social justice, such as the prevention of discrimination based on race, sex, or age.²⁸ As far as the new electronic payment services is concerned, although there is no direct connection between the protection of human rights and further social solidarity and regulating the electronic payment services, and the regulation of new electronic payment services is a “technical” and “neutral” issue rather than a “political” consideration for any governments, some of the things which are paid through payment services are not neutral. For example, the regulation of money laundering is an aspect of social solidarity, and gambling regulation is another aspect of social solidarity. One regulatory technique is to regulate gatekeepers or choke points, rather than regulating the activity directly, because this is more likely to achieve the regulator’s aims. In the example of gambling – it’s hard to control online gambling, as the US example tells us, but quite effective to prohibit payment providers from offering services to gambling companies.

A relevant example of regulatory provision for payment providers the “human rights and social solidarity” rationale justifies is the “Notice on Further Enhancing the Regulatory Work of Cyber Cafés and Internet Games”. One of the aims of this Notice is to protect teenagers from being polluted by unhealthy information in the Internet and get addictive in the Internet (see detailed discussion of the Notice in part 4.2 of chapter 5 of the thesis.). Another example is the “Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games”. One of the aims of this Notice is to ban online gambling through Internet games, which is clearly a social solidarity goal (see detailed discussion of the Notice in part 4.1 of chapter 5 of the thesis.).

²⁷ A developing of the argument is offered in Prosser, Tony. *The Regulatory Enterprise: Government Regulation and Legitimacy* (Oxford: Oxford University Press, 2010), 11-20, where four rationales for regulation are distinguished: (1) regulation for economic efficiency and consumer choice (market-centred regulation); (2) regulation to protect rights; (3) regulation for social solidarity; and (4) regulation as deliberation (the provision of process to resolve problems).

²⁸ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 22-23.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

To conclude this section, by studying Professor Robert Baldwin's analysis of regulatory theory, and integrating the theory into the regulation of new electronic payment services in China, China would regulate aspects of new electronic payment services relating to "windfall profits", "positive and negative externalities", "information inadequacies", "anti-competitive behaviour and predatory pricing", "unequal bargaining power", "rationalization and coordination" and "human rights and social solidarity". China would not regulate aspects of new electronic payment services relating to "monopolies and natural monopolies", "continuity and availability of service", "public goods and moral hazard", "scarcity and rationing" and "planning". Details of the regulation are discussed in the following chapters of the thesis, especially in chapter 4 & 5.

1.3 What is a good regulation?

To decide what a good regulation is, there must be a number of criteria to be set out. In general, Professor Robert Baldwin proposes five criteria for good regulation.²⁹

- (1) The legislative mandate -- is the action or regime supported by legislative authority?
- (2) Accountability -- is there an appropriate scheme of accountability?
- (3) Due process -- are procedures fair, accessible, and open?
- (4) Expertise -- is the regulator acting with sufficient expertise?
- (5) Efficiency -- is the action or regime efficient?

"The first criterion "legislative mandate" suggests that regulatory action deserves support when it is authorized by Parliament [in the Chinese case, the National People's Congress of China³⁰], the fountain of democratic authority. If the people through Parliament, have instructed certain regulators to achieve result X, and those regulators can point to their having

²⁹ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 26-27.

³⁰ This sentence is added by the author.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

produced result X, then they are in a position to claim public support. They have fulfilled their mandate.”³¹ However, problems of this criterion are that “Parliament’s intention may be vague”, “Stated objectives for regulation may exist in tension or conflict”, “Parliament may have delegated the power to flesh-out objectives”, and “Large discretions may be given to regulators”.³²

The second criterion “accountability” means that “regulators with imprecise mandates may, nevertheless, claim that they deserve the support of the public because they are properly accountable to, and controlled by, democratic institutions. Thus, a regulatory agency might claim that it is accountable for its interpretation of its mandate to a representative body and that this oversight renders its exercise of powers acceptable”.³³ However, the problem of this criterion is how to ensure that “the body holding to account is properly representative and whether the trade-off of accountability and efficiency acceptable.”³⁴

In China, the regulators of new electronic payment services include the People’s Bank of China, the Ministry of Commerce and the Ministry of Culture. These central governmental bodies are parts of the State Council. According to article 92 of the Constitution of the People’s Republic of China, the “State Council is responsible, and reports on its work, to the National People’s Congress or, when the National People’s Congress is not in session, to its Standing Committee;”³⁵ and also according to article 59 of the Constitution “The National People’s Congress is composed of deputies elected by the provinces, autonomous regions and municipalities directly under the Central Government, and by the armed forces. All the minority nationalities are entitled to appropriate representation;” therefore, in theory, we can

³¹ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 27.

³² Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 39.

³³ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 28. Also see Frug, Gerald E, “The ideology of bureaucracy in American law” (1984) 97 Harvard Law Review 1277, 1355-61, 1334-9.

³⁴ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 39.

³⁵ Constitution of the People’s Republic of China (Amendments adopted at the second session of the tenth National People’s Congress and promulgated for implementation by the proclamation of the NPC on 14 March, 2004) @ http://www.gov.cn/gongbao/content/2004/content_62714.htm (8 January 2014).

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

draw the conclusion that these central governmental bodies and regulators of new electronic payment services are accountable to the National People's Congress of China and to the people of China.

The third criterion of good regulation -- "due process" is on the basis that "the public support is merited because the regulator uses procedures that are fair, accessible, and open. Thus, attention is paid to equality, fairness, and consistency of treatment, but also to the levels of participation that regulatory decisions and policy processes allow to the public, to consumers, and to other affected parties. The underlying rationale of such a claim is that proper democratic influence over regulation is ensured by due process being observed and that this influence has a legitimating effect."³⁶ However, problems of this criterion are that "who should be allowed to participate?" "what is the acceptable trade-off between openness or accessibility and efficiency?" and "is the mode of participation appropriate?"³⁷

The issue of "due process" covering openness, fairness, equality, accessibility and participation in the Chinese legal regulatory system is a complex and controversial one which is outside the theme of the thesis. However, there is at least one point which could demonstrate the issue of "due process" to the new electronic payment services. The primary legislation regulating Internet third party payment is the "Measures of Management on Non-Financial Institutions Payment Services" which was issued in June 2010 and took effect in 1st September 2010. The original draft of the Measures was named "Measures of Management on Payment and Clearance Organisations" which was released for worldwide suggestions in June 2005³⁸. Later on, the second version of the consultation draft was "confidentially" discussed in a colloquium run by the central bank, People's Bank of China³⁹. During the

³⁶ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 29.

³⁷ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 39.

³⁸ Full Chinese text of the first consultant version of "Measures of Management on Payment and Clearance Organisations" @ <http://www.pbc.gov.cn/publish/zhifujiesuansi/1068/2010/20100914155548493862260/20100914155548493862260.html> (8 January 2014).

³⁹ Information News on "Measures of Management of Payment and Clearance Organisations" @ http://news.xinhuanet.com/ec/2005-11/21/content_3810396.htm (8 January 2014).

negotiation process of these Measures, relevant stakeholders, such as some Internet third party payment providers, have participated in the drafting process of the laws; however, it is unclear that what roles each stakeholder has played, and why the second version of the consultation draft of the “Measures of Management on Payment and Clearance Organisations” was “confidentially” discussed which cannot be found in public accessible sources. This indicates that in terms of openness and accessibility, there is still some space for the People’s Republic of China to improve.

The fourth criterion of a good regulation is “expertise”. “Certain regulatory functions may require the exercise of expert judgement. This is liable to be the case where the decision-maker has to consider a number of competing options or values and come to a balanced judgement on incomplete and shifting information. In these circumstances, the regulator may claim support on the basis of his or her expertise, and the nature of the task at hand, rather than offering to give reasons, or justifications. “Trust to my expertise” is the essence of such a claim. Experts thus assert that they will come to the most appropriate decision and achieve the best results most rapidly when freed from duties of explanation.”⁴⁰ However, problems of this criterion are “the public is poorly positioned to evaluate expertise”, “it is difficult for experts to explain reasoning or judgement to lay persons”, “the public desire for openness and accountability”, “conflicts between experts undermine public confidence”, “public may see experts as self-interested or captured”, and “public sceptical of neutrality of regulatory decisions where certain parties gain advantages.”⁴¹

In China, similarly, expertise is certainly required in many regulatory functions, especially in the banking and financial sectors. Problems like “the public is poorly positioned to evaluate expertise” and “conflicts between experts undermine public confidence” also exist. The regulation of Internet games virtual currency provides an example. When law professors and lawyers discuss the issue “whether the issuance of virtual currency will cause inflation in the real economy and affect Renminbi market”, experts’ opinions were divided. Professor Yang

⁴⁰ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 29.

⁴¹ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 39.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

Tao argued that over issuance of virtual currency will cause inflation in the real economy and damage the real economy, while one of the leading Chinese E-Commerce Law/IT Lawyers Mr. Yu Guofu suggested otherwise.⁴² Although law professors and lawyers are not directly involved in the regulation of Internet games virtual currency, influential legal experts may affect the decision-making of the regulator, and the government may take their expertise into account in the law-making process.

The fifth criterion of a good regulation is “efficiency”. The essence of this claim is that “legislative mandate is being implemented efficiently and efficient results are produced”.⁴³ However, problems of this criterion are “conflicts with legislative mandate may arise”, “distributional questions may be begged or left out of account”, and most importantly, “measuring efficiency is difficult”.⁴⁴ It’s clearly hard to assess China’s efficiency in general. However, by witnessing the five years delay (2005-2010) of the issuance of the “Measures of Management on Non-Financial Institutions Payment Services”,⁴⁵ at least in the area of regulating Internet third party payment, it is hard to argue that it was an efficient law-making process. There is some room for the People’s Bank of China to improve its efficiency.

The above five criteria of good regulation abstracted by Professor Robert Baldwin are very helpful to understand the theory of regulation in a general and overview level. But the other side of the coin is that they are too general to meet the need of the theme of the thesis -- the regulation of new electronic payment in China. After illustrating the theory of banking and financial regulation and the theory of payment services regulation in part 2 and part 3 of this chapter, in part 4, the author will specifically propose what elements should be considered as a good regulation of new electronic payment services in China.

⁴² See details of the debate in part 3.11 in chapter 5 of the thesis.

⁴³ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 39.

⁴⁴ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 39.

⁴⁵ See part 2 in chapter 4 of the thesis for detailed discussion of the Measures.

2. Theory of banking and financial regulation and its application to the regulation of electronic payment services

2.1. Definition of bank regulation and bank supervision

Bank regulation is defined by Professor Rosa Lastra as the establishment of rules, both acts of the legislator (Congress or Parliament), and statutory instruments or rules of the competent authorities. At a national level those competent authorities are the government, through the ministry of finance or Treasury, the central bank and other bank regulatory agencies.⁴⁶ This definition of bank regulation can also be applied to China with slight modification of the terms – bank regulation in China is the establishment of laws, administrative regulations, measures, local regulations and specific regulations⁴⁷ by the National People’s Congress of China and its standing committee, the People’s Bank of China, China Banking Regulatory Commission and relevant local People’s Congresses and local governments.

It is worthwhile to note that Professor Rosa Lastra talks about bank regulation, but payment providers are often not banks. For example, Internet third party payments providers are non-financial institutions in China. The author is extending here the analysis to financial institutions/service providers more widely, because non-financial institutions which provide payment services have close links with banking and financial institutions in the traditional sense.

Bank supervision in a broad sense is defined by Professor Rosa Lastra as a process with four stages or phases: licensing, supervision *stricto sensu*, sanctioning and crisis management, which comprises the central bank’s role of lender of last resort, deposit insurance schemes and bank insolvency proceedings.⁴⁸ In general level, these four stages or phases equally exist in Chinese bank supervision, in specific level, differences exist in detailed rules and regulations between China and the UK banking system.

⁴⁶ Lastra, Rosa, *Central Banking and Banking Regulation*, (London: Financial Markets Group, 1996), p. 108.

⁴⁷ See part 2 of chapter 1 of the thesis for “Sources of law and hierarchy of the Chinese law in the Chinese legal system”.

⁴⁸ Lastra, Rosa, *Central Banking and Banking Regulation*, (London: Financial Markets Group, 1996), p. 108.

Regarding the licensing issue, Professor Rosa Lastra further points out that “the licensing process refers to *ex ante* requirements to protect safe and sound banking practices, particularly as regards minimum capital and management competence and integrity. Licensing is a key first step in the supervisory process; it acts as catalyst or filter to prevent “bad” banks and dishonest people from entering the banking system. Therefore, a country – particularly in the developing world (including China⁴⁹) – which wants to improve the quality of its prudential supervision should start by adopting a rigorous authorization procedure. However, while entry barriers in the banking business should not be too lax, neither should they be so restrictive that they lead to inadequate competition. A delicate balance between stability and efficiency must be achieved in the design of a country’s bank chartering policies.”⁵⁰

When it comes to Internet payment services, it is equally important to maintain a delicate balance between stability and efficiency when setting up licensing barriers. The author provides detailed analysis on the licensing of Internet third party payment providers in Chapter 4 of the thesis, because it is the most controversial topic which has caused the People’s Bank of China to postpone issuance of the “Measures of Management on Non-Financial Institutions Payment Services” for over 5 years (from 2005 to 2010) (see part 2 & 3 of Chapter 4 of the thesis).

Regarding supervision *stricto sensu*, Professor Rosa Lastra points out that “it refers to the monitoring of the safety and soundness of a bank during its “healthy” life. It is also called prudential supervision, to emphasize the ‘prudence’ needed to run a bank and it encompasses the oversight of the following elements: asset quality, capital adequacy, liquidity, earnings and management, including internal systems of control and security systems.”⁵¹

⁴⁹ The phrase “including China” was added by the author.

⁵⁰ Lastra, Rosa, *Central Banking and Banking Regulation*, (London: Financial Markets Group, 1996), p. 109-110.

⁵¹ Lastra, Rosa, *Central Banking and Banking Regulation*, (London: Financial Markets Group, 1996), p. 110-111.

When it comes to prudential supervision of Internet payment services, the most important factor relating to the safety and soundness of an Internet third party payment provider is how to manage and regulate retained funds, because it is the increasing large amounts of funds retained by payment providers that generate and accumulate huge risks and uncertainty. The author provides detailed analysis on the regulation of retained fund in the Internet third party payment providers in part 3.2 in chapter 4 of the thesis. The third and fourth stage of bank supervision, -- sanctioning and crisis management are also involved.

2.2. Arguments and justifications for regulating banking and financial sectors, and applications to electronic payment services

In part 1.2 of this chapter, general rationales and justifications for regulation have been extensively discussed. In the context of banking and financial regulation, there are some arguments and justifications which exclusively apply to the banking and financial sectors.

2.2.1 Fundamental justification: confidence

In banking and finance sectors, though the specific purposes of banking regulation are to ensure the safety and soundness of the financial system and economic neutrality in the allocation of credit, the ultimate goal is to safeguard confidence in the banking system⁵².

Whether regulators emphasize the protection of trust in the system as a whole or of individual depositors, confidence will always be an essential element in banking (The protection of such “confidence” is often seen as a role of the government)⁵³.

The author suggests that, in the electronic payment area, regardless its specific categories of electronic payment, confidence should be the fundamental justification of regulation for both traditional electronic funds transfers and new electronic payment services. Confidence should also be the ultimate goal of regulating electronic payment services. Because an electronic payment transactions is a payment mechanism facilitating payment other than by means of

⁵² Lastra, Rosa, *Central Banking and Banking Regulation*, (London: Financial Markets Group, 1996), p. 71.

⁵³ Lastra, Rosa, *Central Banking and Banking Regulation*, (London: Financial Markets Group, 1996), p. 72.

the physical delivery of coins and banknotes and any kinds of commercial papers from the payer to the payee, which means that the payer and payee, in most cases, will not see each other or not even know each other. Thus, a properly regulated electronic payment services could ensure and enhance the confidence and trust of trading parties in the system as a whole and for payers and payees as individuals.

2.2.2 Three main arguments for the regulation of banking and financial sectors and electronic payment services

Further to the fundamental justification, according to Professor Charles Goodhart, there are three main arguments which identify banking and financial sectors to be regulated by the government:⁵⁴

- To protect the customer against monopolistic exploitation.
- To provide smaller, retail (less informed) clients with protection.
- To ensure systemic stability

2.2.2.1 The first argument: protection against monopolies

“Although most of the financial industry is ferociously competitive, several of the supporting systems and markets incorporate network economies and/or economies of scale. For example, it may be most efficient to have a single clearing, or payment, system. The more widely an (electronic) card is used, the more widely it will be accepted as a medium of exchange (this is an example of network economies). Those who command access to the use of such systems (markets), or to the information that they generate, are in a position to generate (monopoly) rents and to exert unfair and undue influence on outsiders. Yet those who have established a system, or a market, must be allowed some control over who uses it, and the information that such systems and markets generate is, in a sense, private property. The circumstances under which the public have a right of access to otherwise private systems, markets and information

⁵⁴ Goodhart, Charles, Hartmann, Philipp, Llewellyn, David, Rojas-Suarez, Liliana, Weisbrod, Steven, *Financial regulation – why, how and where now?* (Published in association with the Bank of England, 1998) Chapter 1 “The rationale for regulation”, p. 4.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

is a difficult area, but one that covers a much broader and more general field than the financial sector.”⁵⁵

When it comes to Internet third party payment, the presence of multiple providers in the market is clear proof that this is not a monopoly. When a buyer wishes to make payment to a seller through an Internet third party payment provider, the buyer has a large amount of Internet third party payment providers to choose from; the seller, especially those big merchants like Dangdang.com, usually employ several Internet third party payment providers to meet different preferences of different groups of customers, such as retail and wholesale customers. In contemporary China, some Internet third party payment providers, such as Alipay and QuickMoney own a substantial part of the Internet third party payment market.⁵⁶ Although they are not in a monopoly position, there is a rapid consolidation going on in the market. So even if monopoly is not a problem now, it might become one – this is something China should anticipate in its regulation.

In the case of virtual worlds, the situation is slightly different. Within a specific virtual world, such as the World of Warcraft, if a player (a customer) wants to make a transfer of the World of Warcraft Gold, he has to use the in-game centralised payment system provided by the operator of the World of Warcraft -- Blizzard Entertainment. In this sense, the game operator is in a monopoly position. Even if players can always vote with their feet since there are so many virtual worlds to choose from in the games market, these games/worlds are not substitutes for each other. Players make a substantial investment in their activity, which cannot be carried over to a new game/virtual world where they have to start from scratch.⁵⁷

2.2.2.2 The second argument: client protection

⁵⁵ Goodhart, Charles, Hartmann, Philipp, Llewellyn, David, Rojas-Suarez, Liliana, Weisbrod, Steven, *Financial regulation – why, how and where now?* (Published in association with the Bank of England, 1998) Chapter 1 “The rationale for regulation”, p. 4.

⁵⁶ See a ranking of global Internet third party payment providers @ <http://news.doooo.com/archives/305> (8 January 2014).

⁵⁷ A good reference for substitutability as test for markets in the EU Competition Law is Whish, Richard, *Competition Law* (7th ed., Oxford: Oxford University Press, 2012).

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

“The second argument for public sector regulation of banks and financial institutions arises for two main reasons: (1) because the institution where clients hold their funds fails; or (2) because of the adverse behaviour (unsatisfactory conduct of business) of a firm with its customers. The failure of an individual financial institution may have adverse effects on systemic stability and cause losses to individual depositors who are regarded as incapable of looking after their own interest... the impact of their failure on their clients (and on systematic stability) means that regulators are almost inevitably bound to have a prudential concern with the liquidity, solvency, riskiness and general health of individual institutions, both firms and markets. In this respect, both prudential and systemic regulation require the regulation and supervision of institutions rather than of the functions they perform. Conduct of business regulation, on the other hand, focuses on functions, irrespective of which institutions are involved.”⁵⁸

This “client protection” argument can certainly be applied to Internet third party payment and Internet games virtual currency for the same two reasons: (1) because Internet third party payment providers and Internet games virtual currency issuers/operators are places where clients and games players hold their funds. They may fail, and clients may lose their funds (see part 3.2 of chapter 4 of the thesis for the discussion of retained funds by Internet third party payment providers). This is important for China because outside China, users tend not to hold funds in Internet third party providers to any great extent. (2) Because of the adverse behaviour (unsatisfactory conduct of business) of an Internet third party payment provider and an Internet games virtual currency issuer/operator may put their customers in a disadvantage position. The meaning of “adverse behaviour” is wide which could include: investing users’ funds into high risk business, carelessly ignoring potential technological risks such as cyber-attack in the Internet, and misrepresenting important payment information

⁵⁸ Goodhart, Charles, Hartmann, Philipp, Llewellyn, David, Rojas-Suarez, Liliana, Weisbrod, Steven, *Financial regulation – why, how and where now?* (Published in association with the Bank of England, 1998) Chapter 1 “The rationale for regulation”, p. 4 - 5. In page 5, Professor Charles Goodhart further points out that “Prudential and systemic regulation need to be distinguished, although both adopt a similar approach. Systemic regulation is about the safety and soundness of financial institutions for purely systemic reasons (i. e. because the social costs of the failure of an institution exceed the private costs). On the other hand, prudential regulation is about the safety and soundness of financial institutions *vis-à-vis* consumer protection, in that the consumer loses when an institution fails, even if there are no systemic consequences.”

leading users to make unfavourable decisions, etc. Any behaviour which put users into a disadvantage position may be regarded as an “adverse behaviour”.

2.2.2.3 The third argument: ensuring systemic stability

“Systemic regulation is necessary when the social costs of the failure of a financial institution (particularly a bank) exceed the private costs and such potential social costs are not incorporated in the decision making of the firm. Yet, systemic issues do not relate to all institutions. The key point is that banks are subject to runs, which have contagion effects, and which can throw solvent banks into insolvency both because a large proportion of their assets are not easily marketable and, probably to a lesser extent, because the panic drives down the current value of marketable assets. The value of a bank’s loans is based on inside information possessed by the bank that cannot credibly be transferred in a secondary market. In other words, a bank’s assets are usually more valuable on a going-concern basis than on a liquidation (break-up of the bank) basis. In particular, failure (losses) in one bank will cause outsiders to revise their view of the value of other banks’ assets.”⁵⁹

In terms of Internet third party payment and Internet games virtual currency, the “ensuring systemic stability” argument can still apply because there are two types of systemic risks involve. One is financial systemic risk and the other is technical systemic risk. The financial systemic risk means that when an Internet third party payment provider or an Internet games virtual currency issuer/operator goes bust, it inevitably will impact banks, financial institutions, and other Internet third party payment providers or Internet games virtual currency issuer/operator which has commercial connections with it. Domino effects may occur. In terms of the size of this risk, if payment is generally immediate, the credit risk is only a single day’s worth of payment. If payment is not immediate, the credit risk can be accumulated throughout days, or even weeks.

⁵⁹ Goodhart, Charles, Hartmann, Philipp, Llewellyn, David, Rojas-Suarez, Liliana, Weisbrod, Steven, *Financial regulation – why, how and where now?* (Published in association with the Bank of England, 1998) Chapter 1 “The rationale for regulation”, p. 8 - 9.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

The technical systemic risk means that, technically, if one Internet third party payment provider or one Internet games virtual currency issuer/operator comes across a technological problem, for examples – mainly (a) fraud (technical security failure) and (b) connection failure (so payments cannot be made), those banks and financial institutions with which are commercial connected may suffer similar problems, because at the end of the day, customers and games players have to transfer funds from their banks' accounts to accounts of the problematic Internet third party payment provider or Internet games virtual currency issuer/operator. In a world which is highly interconnected, both financial systemic risk and technical systemic risk are enlarged.

2.2.3 Specific and standard justifications of government regulation and their applications to electronic payment services

In addition to the fundamental justification and three main justifications of banking and financial regulation suggested by Professor Charles Goodhart, according to Professor Rosa Lastra⁶⁰, there are also seven standard justifications for the government to regulate banking and financial services. These seven standard justifications are more specific and detailed than the fundamental justification and the three main justifications. The author would like to examine these standard justifications for government regulating banking and finance industry, by taking into account the new electronic payment services which is the theme of the thesis:

1. Governments accept general responsibility for the stability and soundness of the financial system. They control (or try to control) the different risks associated with the banking industry and financial markets in general, and usually oversee the payment systems.

When it comes to Internet third party payment, this justification is also applicable. Because Internet third party payment providers transfer tremendous amounts of funds every second, it is in the interest of governments to maintain a stable and sound payment environment. For Internet games virtual currency, the safety and order of virtual financial system in the virtual

⁶⁰ Lastra, Rosa, *Central Banking and Banking Regulation*, (London: Financial Markets Group, 1996), p. 75.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

worlds is beneficial for all stakeholders, including games operators, games players and governments, and the safety and order cannot be safeguarded without proper regulations.

2. Governments accept responsibility for the conduct of monetary policy, influencing the money supply, the level and structure of interest rates and the availability of credit. Because of the special function of demand deposits, as the major component of the money supply, banks are subject to more regulation than other financial institutions, whose liabilities are not technically “money”.

Generally speaking, Internet third party payment and Internet games virtual currency merely acts as two kinds of financial intermediary instruments to facility efficient and convenient funds transfer, there is no monetary policy issue directly involved. Although, there have been some discussions that over issuance of virtual currency may affect money supply in the real economy, the author will prove that money supply in the real economy will not be influenced no matter how much virtual currency is issued in virtual worlds (see detailed discussion in part 3.1 of Chapter 5 in the thesis). Therefore, this argument could not be adopted as an argument for the regulation of new electronic payment services.

3. Certain governments are concerned with the safety and confidence of individual depositors and investors, because of the distinct nature of bank creditors: not sophisticated, too small and too numerous (problems of collective action, etc.).

For new electronic payment services, individual users’ safety and confidence is also crucial. In Internet third party payment services, for example, the system is designed largely for C2C and B2C transactions, and individuals rather than big companies or businesses transfer majority of the funds (although big companies might be transferees – this doesn’t affect the justification). In Internet games virtual currency system, majority of the virtual currency users are individual persons who registered their avatars or profiles in relevant virtual worlds.

Therefore, this is an appropriate argument for regulating new electronic payment services.

4. Some governments may have an interest in limiting the undue concentration of financial resources and economic power.

Theoretically speaking, this argument can be applied to new electronic payment services, and the Chinese government has an interest in limiting the undue concentration of resources and economic power accumulated by major Internet third party payment providers and virtual currency issuers/operators. However, to date, no one Internet third party payment provider or virtual currency issuer/operator is in a monopolised position in China. Also, it is difficult to judge the degree of concentration of financial resources and economic power, and it is hard to identify what “undue concentration” is and what “reasonable concentration” is. Therefore, this argument may apply, but is not a particularly strong one.

5. Governments may be concerned with the allocation of credit to the various sectors of the economy.

Because none of the new electronic payment services discussed in the thesis involve the granting of credit, this justification doesn't apply.

6. Governments may want to maintain national autonomy from international corporations.

The argument of regulating banking and finance industry is particularly strong for regulating electronic payment industry. First, because of the borderless character of the Internet, a powerful enough electronic/Internet payment provider in country A may well be able to penetrate into and dominate the electronic/Internet payment market in country B (Paypal is the best example). Afterwards, this electronic payment giant may violate the autonomy of

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

country B through its economic power. A well-designed legal framework in country B could, on the one hand, prevent such violation from happening, and on the other hand, encouraging fair competition. Second, from a Chinese perspective, the SWIFT is much more of a theoretical worry, though maybe not in practice because of its non-profit status and governance model. However, the existence of SWIFT effectively prevents China from developing its own (different) rules for funds transfers to/from China.

7. Governments may have a historical interest in preserving certain types of financial institutions.

This argument is not relevant to the new electronic payment services discussed in this thesis. In China and all over the world, the new electronic payment services have “no” history – it has been around for less than 15 years and in a constant development mode. Governments do not have a historical interest in preserving them. A further point is that “does China have a historical interest in preserving banks from competition from internet providers?” The answer is no, because the Chinese commercial banks are mainly new as well. However, in the EU scenario, it can be argued that one purpose of the e-money directive was to preserve banks from competition (see the “level playing field” point discussed in part 1.2 in chapter 7 of the thesis).

2.2.4 An additional argument and justification for regulating new electronic payment services

Anti-money laundering could be a strong argument and justification for the regulation of new electronic payment services (although it is not an exclusive one for the electronic payment industry). This is a particularly strong justification for new, online payment mechanisms because these do not require the same depth of relationship between customer/provider as is found in traditional banking (e.g. my bank “knows” me in some depth, PayPal only knows my email address and payment card number).

3. General principles of payment systems regulation

In 2001, Committee on Payment and Settlement Systems of the Bank for International Settlements (BIS) has published the “Core Principles for Systemically Important Payment Systems -- Report of the Task Force on Payment System Principles and Practices”.⁶¹ “The principles are expressed in a deliberately general way to help ensure that they can be useful in all countries and that they will be durable. They do not represent a blueprint for the designing or operation of any individual system, but suggest the key characteristics that all systemically important payment systems should satisfy.”⁶² The author will analyse the regulation of new electronic payment against each principle established by the Bank for International Settlements, so as to decide which principles can also be applied to the regulation of Internet third party payment and Internet games virtual currency, and which cannot be applied.

- I. The system should have a well-founded legal basis under all relevant jurisdictions.

The interpretation of this principle is that “The rules and procedures of a systems should be enforceable and their consequences predictable. A system which is not legally robust or in which the legal issues are poorly understood could endanger its participants.” And “The legal environment relevant to this principle includes the general legal infrastructure in the relevant jurisdictions (such as the law relating to contracts, payments, securities, banking, debtor/creditor relationships, and insolvency) as well as specific statutes, case law, contracts (for example, payment system rules) or other relevant materials.”⁶³

This principle is universally correct for any jurisdictions in all areas of the law. It is certainly always correct that any system should have a well-founded legal basis, and this principle can be applied to the regulation of new electronic payment services without any doubt.

Specifically, in terms of the implementation of this principle in China, China does already have a set of systemically-founded laws and rules relating to contracts, securities, banking,

⁶¹ See the full report @ <http://www.bis.org/publ/cpss43.htm> (8 January 2014).

⁶² Forward of the “Core Principles for Systemically Important Payment Systems -- Report of the Task Force on Payment System Principles and Practices”.

⁶³ “Core Principles for Systemically Important Payment Systems -- Report of the Task Force on Payment System Principles and Practices”, p. 6.

insolvency and traditional payment systems. It is the regulation of new electronic payment that has not been studied systematically and comprehensively, which is the theme of the thesis.

- II. The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks they incur through participation in it.

The interpretation of this principle is that “participants, the system operator, and other involved parties – in some cases including customers – should understand clearly the financial risks in the system and where they are borne. An important determinant of where the risks are borne will be the rules and procedures of the system. These should define clearly the rights and obligations of all the parties involved and all such parties should be provided with up-to-date explanatory material. In particular, the relationship between the system rules and the other components of the legal environment should be clearly understood and explained. In addition, key rules relating to financial risks should be made publicly available.”⁶⁴

The author suggests that this principle can be applied to the regulation of new electronic payment services. All participants, which include Internet third party payment providers, Internet games virtual currency issuers and operators, payers and payees, should understand clearly the financial risks in the system and where they are borne. The rights and obligations of all participants need to be clearly identified and defined with up-to-date explanatory material. In Alipay, for example, those detailed rules, rights and obligations are identified and defined through a series of documents which include “Alipay Services Agreement”, “Alipay Verification Services Agreement”, “Alipay Transaction General Rules”, “Alipay Dispute Resolution Rules”⁶⁵ and so on so forth.

⁶⁴ “Core Principles for Systemically Important Payment Systems -- Report of the Task Force on Payment System Principles and Practices”, p. 6.

⁶⁵ See all details of the rules and agreements @ <http://help.alipay.com/lab/150006-232252/10-0-232252.htm?tab=&sh=> (8 January 2014).

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

- III. The system should have clearly defined procedures for the management of credit risks and liquidity risks,⁶⁶ which specify the respective responsibilities of the system operator and the participants and which provide appropriate incentives to manage and contain those risks.

The interpretation of this principle is that “The rules and procedures of a systemically important payment system are not only the basis for establishing where credit and liquidity risks are borne within the system, but also for allocating responsibilities for risk management and risk containment. They are, therefore, an important mechanism for addressing the financial risks which can arise in payment systems.”⁶⁷

The author suggests that this principle is applicable to the regulation of new electronic payment services, in particular to the regulation of the new electronic payment services providers. There is no credit risk or liquidity risk involved when funds are moving between payers and payees within Internet third party payment system or within Internet games virtual currency system because Internet third party payment system and Internet games virtual currency system do not provide credit either to payers or payees. However, there are credit risk and liquidity risk involved when the payment systems providers, namely the Internet third party payment providers and Internet games virtual currency issuers/operators cannot repay the funds they collect and hold for their customers, due to, for example, the failure of investment (even in low risk investment business) of the retained funds.

- IV. The system should provide prompt final settlement on the day of value, preferably during the day and at a minimum at the end of the day.

The interpretation of this principle is that “it relates to daily settlement in normal circumstances. Between the time when payments are accepted for settlement by the payment

⁶⁶ Credit risk is the risk that a party within the system will be unable fully to meet its financial obligations within the system currently or at any time in the future. Liquidity risk is the risk that a party within the system will have insufficient funds to meet financial obligations within the system as and when expected, although it may be able to do so at some time in the future. These definitions are given by the “Core Principles for Systemically Important Payment Systems -- Report of the Task Force on Payment System Principles and Practices”, p. 5.

⁶⁷ “Core Principles for Systemically Important Payment Systems -- Report of the Task Force on Payment System Principles and Practices”, p. 6.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

system (including satisfaction of any relevant risk management tests, such as the application of limits on exposures or availability of liquidity) and the time when final settlement actually occurs, participants may still face credit and liquidity risks. These risks are exacerbated if they extend overnight, in part because a likely time for the relevant authorities to close insolvent institutions is between business days. Prompt final settlement helps to reduce these risks. As a minimum standard, final settlement should occur at the end of the day of value.”⁶⁸

The author suggests that this principle can be applied to new electronic payment services, and this minimum standard of final settlement can be easily achieved. This standard was proposed in 2001, nowadays, all Internet third party payment systems and Internet games virtual currency systems provide instant settlement services. For Internet third party payment system, because it is a credit transfer system,⁶⁹ and in China, the settlement of credit transfer in any amount of funds (start from 0.00) go through the Chinese “Large Value Real Time Payment System”, which stipulate that final settlement should occur at a real-time basis as long as the payment is instructed before 17.00pm in that working day.⁷⁰ For Internet games virtual currency, a payee usually will receive his virtual currency immediately after the payer clicks the “payment/transfer” button in the computer screen.

- V. A system in which multilateral netting takes place should, at a minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single settlement obligation.

The interpretation of this principle is that “Multilateral netting systems with deferred settlement face the risk that a participant will not be able to meet its settlement obligations, raising the possibility that other participants will face unexpected credit and liquidity pressures at the time of settlement. Such systems therefore need strong controls to address this settlement risk... at a minimum, a netting system must be able to withstand the failure of

⁶⁸ “Core Principles for Systemically Important Payment Systems -- Report of the Task Force on Payment System Principles and Practices”, p. 7.

⁶⁹ See the discussion of credit transfer/debit transfer in part 1.3 in chapter 2 of the thesis.

⁷⁰ See part 4 and 5 of the introduction of the “Large Value Real Time Payment System” @ <http://www.pbc.gov.cn/publish/goutongjiaoliu/3398/2011/20110519165827712141586/20110519165827712141586.html> (8 January 2014).

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

the largest single net debtor to the system. This approach underlies the present arrangement in many payment systems that settle on a net basis for limiting credit and liquidity risk, and for ensuring access to liquidity in adverse circumstances.”⁷¹

As it has been analysed in the last principle, nowadays, all new electronic payment services adopt instant and immediate funds transfer mechanism. This principle where multilateral netting occur is designed for traditional banking funds transfers, especially for paper-based funds transfers, such as cheques. It is not relevant to Internet third party payment and Internet games virtual currency systems.

VI. Assets used for settlement should preferably be claim on the central bank; where other assets are used, they should carry little or no credit risk.

The interpretation of this principle is that “most systems involve the transfer of an asset among system participants to settle payment obligations. The most common and preferable form of such an asset is an account balance at the central bank, representing a claim on the central bank. There are, however, examples of other forms of settlement asset, representing claims on other supervised institutions.”⁷²

The author suggests that this principle is not applicable to the regulation of new electronic payment services, because virtual currency, such as Q coins, is structured as claims on its issuer, just like article 2 of the EU Electronic Money Directive 2009 states that “...the ‘electronic money’ is monetary value as represented by a claim on the issuer...”⁷³ It would be impossible and ridiculous to stipulate that virtual currency, used for settlement within the virtual worlds, should be a claim on the central bank. If this happens, the central bank will be the largest holders of all kinds (maybe hundreds of) of different virtual currencies, such as Q coins, World of Warcraft gold, Linden Dollars, etc.

⁷¹ “Core Principles for Systemically Important Payment Systems -- Report of the Task Force on Payment System Principles and Practices”, p. 7.

⁷² “Core Principles for Systemically Important Payment Systems -- Report of the Task Force on Payment System Principles and Practices”, p. 8.

⁷³ See extensive discussion of the EU Electronic Money Directive 2009 in chapter 6 of the thesis.

A further point is that most new electronic payment services work by using secondary settlement systems. Thus Paypal transfers funds from bank accounts and credit cards to itself, and from itself to bank accounts. These transfers are settled through established banking systems. So in effect Paypal makes its own settlement system, piggy-backing on the banks' systems. This principle does not apply, because the underlying value, on which these transfers is based, is claims on central bank.

- VII. The system should ensure a high degree of security and operational reliability and should have contingency arrangements for timely completion of daily processing.

The interpretation of this principle is that “market participants rely on payment systems for settling their financial market transactions. To ensure the accuracy and integrity of these transactions, the system should incorporate commercially recognised standards of security appropriate to the transactions values involved. These standards rise over time with advances in technology. To ensure completion of daily processing, the system should maintain a high degree of operational resilience. This is not just a matter of having reliable technology and adequate back up of all hardware, software and network facilities. It is also necessary to have effective business procedures and well-trained and competent personnel who can operate the system safely and efficient and ensure that the correct procedures are followed.”⁷⁴

This is another principle which is universally correct and applicable in all jurisdictions and in all system, and it certainly can be applied in the regulation of new electronic payment services. All payment systems require good technologies, good will, and well-trained professionals with adequate skills.

- VIII. The system should provide a means of making payments which is practical for its users and efficient for the economy.

⁷⁴ “Core Principles for Systemically Important Payment Systems -- Report of the Task Force on Payment System Principles and Practices”, p. 8.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

The interpretation of this principle is that “operators, users and overseers of systems all have an interest in the efficiency of a system. They want to avoid wasting resources and, other things being equal, would wish to use fewer resources. There will typically be a trade-off between minimising resource costs and other objectives, such as maximising safety. Within the need of meet these other objectives, the design of the system, including the technological choices made, should seek to economise on relevant resource costs by being practical in the specific circumstances of the system, and by taking account of its effects on the economy as a whole.”⁷⁵

This is the third universally applicable principle. The issue of maximising efficiency and reducing costs stands at the heart of economics studies. Similar to traditional payment systems, the regulation of new electronic payment services needs to consider how to minimise resources costs and maximise safety.

IX. The system should have objective and publicly disclosed criteria for participation, which permit fair and open access.

The interpretation of this principle is that “access criteria that encourage competition amongst participants promote efficient and low-cost payment services. This advantage, however, may need to be weighed against the need to protect systems and their participants from participation in the system by institutions that would expose them to excessive legal, financial or operational risks. Any restrictions on access should be objective and based on appropriate risk criteria. All access criteria should be stated explicitly and disclosed to interested parties.”⁷⁶

The author suggests that this principle is an important and applicable principle to the regulation of new electronic payment services. In part 3.1 in chapter 4 of the thesis, the

⁷⁵ “Core Principles for Systemically Important Payment Systems -- Report of the Task Force on Payment System Principles and Practices”, p. 8 – 9.

⁷⁶ “Core Principles for Systemically Important Payment Systems -- Report of the Task Force on Payment System Principles and Practices”, p. 9.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

author has provided detailed analysis on the issue of fair and open access by discussing the licencing of Internet third party payment providers in China.

- X. The system's governance arrangements should be effective, accountable and transparent.

The interpretation of this principle is that “payment system governance arrangements encompass the set of relationships between the payment system's management and its governing body (such as a board of directors), its owners and its other stakeholders. These arrangements provide the structure through which the system's overall objectives are set, how they are attained and how performance is monitored. Because systemically important payment systems have the potential to affect the wider financial and economic community, there is a particular need for effective, accountable and transparent governance, whether the system is owned and operated by the central bank or by the private sector.”⁷⁷

The author suggests that this principle is also applicable to the regulation of new electronic payment services, because with the increasing large number of funds being transferred through Internet third party payments system and Internet games virtual currency system, there is a potential to affect the wider financial and economic community. One of the leading Internet industry research companies, Iresearch, reports that, in the fourth quarter of 2011, the market volume of Internet third party payment in China has achieved RMB 766.7 billion (roughly equivalent to GBP 76.67 billion). This figure is 24.6% larger than the third quarter of 2011, and 116.8% larger than the fourth quarter of 2010.⁷⁸ An effective, accountable and transparent governance arrangement is definitely a must for any new electronic payment services.

⁷⁷ “Core Principles for Systemically Important Payment Systems -- Report of the Task Force on Payment System Principles and Practices”, p. 10.

⁷⁸ “Iresearch: the transactions volume of Internet third party payment market in China has achieved RMB 766.7 billion in the fourth quarter of 2011.” @ <http://ec.iresearch.cn/54/20120224/164092.shtml> (8 January 2014).

In sum, most principles proposed in the “Core Principles for Systemically Important Payment Systems” can be applied in the regulation of new electronic payment services. However, these principles might be too general for new electronic payment services. Are there any specific principles that are exclusively important for the new electronic payment services? The author will explore this question in part 4 of this chapter.

4. Specifically, what regulatory principles should be considered in a good regulation of new electronic payment in China?

To answer the question what regulatory principles should be considered as a good regulation of new electronic payment services in China in addition to the principles proposed by the Bank for International Settlement, it is necessary to clarify the aims of regulating new electronic payment services in China.

The author suggests that there are three main aims for the regulation of new electronic payment services in China.

- Ensuring the safety, stability and soundness of the new electronic payment services
- Protecting consumers
- Promoting technological innovations

The first and second aims of the regulation of the new electronic payment services are addressed in the core principles of systemically important payment systems by the Bank for International Settlement; for example, Principles II and III address the protection of consumers of payment system, Principles VII and X address the safety, stability and soundness of payment systems.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

The third aim of the regulation – promoting technological innovations – has not been sufficiently addressed. The author suggests that there are two regulatory principles which are specifically relevant to the regulation of new electronic payment services which should be taken into account. They are technology neutrality principle and light-touch regulation principle.

There are two main elements of the technology neutrality principle:⁷⁹

- The fundamental rules should be the same online as off-line (or more broadly, the same for an online technology activity as for the equivalent off-line technology activity); and
- Legal rules should not favour or discriminate against a particular technology.

The first element of the technology neutrality principle – online and offline equivalence -- is not directly relevant to the new electronic payment services, because nowadays all electronic payment services are operating online. The key point is the second element. The law should not assume that one technology is better than another technology, as long as they are achieving the same legal consequence, they should be treated equally. The technology neutrality principle will allow enough space to the innovation of electronic payment technologies, and it could keep legislations and regulations relatively stable, i.e. the law does not have to update frequently so as to catch up the new development of technologies.⁸⁰

Regarding the light-touch regulation principle, what is it? The UK Parliament Better Regulation Executive (BRE) has provided a definition of light-touch regulation. It writes that “Better Regulation is about providing protection whilst minimising the cost to business, the

⁷⁹ Reed, Chris, “Taking sides on technology neutrality”, *SCRIPT-ed*, Volume 4, Issue 3, September 2007, p. 266.

⁸⁰ A detailed discussion of the technology neutrality regulation in a general level can be seen at Koops, Bert-Jaap, Lips, Miriam, Prins, Corien, & Schellekens, Maurice (eds.), *Starting points for ICT regulation, deconstructing prevalent policy one-liners*, IT & Law Series Vol. 9, (The Hague: T, M. C Asser Press, 2006) ISBN 90-6704-216-1, p. 77-108.

Chapter 3 Theories of Regulation, Banking and Financial Regulation and Payment Services Regulation

public and third sectors ... To this end, the Better Regulation Executive is working to change the culture of regulation in the UK towards a light touch approach that regulates only when necessary and keeps protections high, but burdens low”.⁸¹ A high level protection with low burdens will achieve the aims that promote technology innovation and consumer protections as the same time. One stone could hit two birds.

To some extent, these two principles are interconnected with each other. For example, when a law adopts a technology indifference attitude, the regulation tends to be light-touch, instead of heavy-touch, because the law will not stipulate so much technological details for a specific area.

From specific legislations to regulatory approaches, in chapter 4, 5, 6, & 7 of the thesis, there are extensive and detailed discussions of the regulation of the new electronic payment services in China with a comparative study to the EU/UK laws.

⁸¹ UK Parliament, Select Committee on Regulators First Report, Chapter 4: “How regulators work—self-discipline and self-evaluation”@ <http://www.publications.parliament.uk/pa/ld200607/ldselect/ldrgltrs/189/18907.htm> (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China- Licensing and Retained Funds Regulation

Introduction

The author has discussed and clarified different categories and working mechanisms of various kinds of new electronic payment in chapter 2 of the thesis. General theories on regulation and specific principles on payment services regulation have been extensively discussed in chapter 3 of the thesis. In this Chapter, the author will be exclusively focusing on legal issues of the Internet third party payment providers to find out “how is the Internet third party payment being regulated in China?” “What are the key issues in regulating the Internet third party payment?” and “Is the current regulation appropriate?”

Starting with market layout and industry features of the Internet third party payment providers, in this chapter, the author will extensively discuss the key regulation — the “Measures of Management on Non-Financial Institutions Payment Services” and the two key regulatory issues — licensing Internet third party payment providers and the regulation of retained funds.

There are a number of similar names used to describe “Internet third party payment providers”. Hereafter, the terms “non-bank Internet third party payment platform providers”, “Internet third party payment providers”, “Internet third party providers” and “third party providers” are all pointing to the same thing—Internet third party payment providers.

1. Market layout of Internet third party payment providers in China

1.1 Market layout and relevant statistics

Market statistics showed that, in 2006, the overall transaction volume on Internet third party payment platform market was approximately RMB 40 billion Yuan (roughly equivalent to 4 billion Pounds) in China, and there were over 40 players competing in the market. The largest and most influential players included: Alipay (支付宝),¹ Paypal (贝宝),² ChinaPay (中国银联电子支付),³ and TenPay (财付通).⁴ Their average monthly transaction volumes were between 300 Million and 500 Million Yuan. The second group of players encompassed approximately ten companies, for example, PayEase (首信易支付),⁵ QuickMoney(快钱),⁶ YeePay (易宝),⁷ JieYin (捷银),⁸ and Huanxun(环讯).⁹ Their average monthly transaction volume were between 30 Million and 100 Million. Apart from those two leading groups, other smaller companies struggled at the boundary of the market¹⁰.

By the end of 2009, according to a summary of “China’s Third Party Payment Market Blue Book” by Analysis International¹¹, the transaction volumes of Internet third party payment providers was 15 times larger than the year of 2006, which nearly reached RMB 600 billion Yuan¹² (roughly equivalent to 60 billion Pounds). By the end of 2011, also according to the data from the Analysis International, the whole transaction volume of the Chinese Internet third party payment market was RMB 2.161 trillion Yuan (roughly equivalent to 0.2161

¹ <https://www.alipay.com/> (8 January 2014).

² Although Paypal China is not in a dominant position in current Chinese third party payment market, its worldwide brand influence and soft power cannot be ignored. @ <https://www.paypal.com/cn> (8 January 2014).

³ <http://www.chinapay.com/> (8 January 2014).

⁴ <https://www.tenpay.com/> (8 January 2014).

⁵ <http://www.beijing.com.cn/> (8 January 2014).

⁶ <https://www.99bill.com/website/> (8 January 2014).

⁷ <http://www.yeepay.com/> (8 January 2014).

⁸ <https://www.172.com/> (8 January 2014).

⁹ <http://www.ips.com.cn/> (8 January 2014).

¹⁰ Wang, Yongliang. (王永亮), “Issuing of License for Electronic Payment Enterprises”, (白热化的帝国梦—电子支付企业牌照发放畅想), accessed with passwords from databases of China Academic Journal Publishing House @ <http://www.cnki.net>.

¹¹ Analysis International is one of the leading advisory companies on technology, media and telecom industries in China. @ <http://english.analysys.com.cn/> (8 January 2014).

¹² Xiang, Y (向阳), “The transaction volume of China’s domestic Internet third party payment market is near RMB 600 billion Yuan” @ http://news.xinhuanet.com/internet/2010-02/10/content_12962760.htm (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

trillion Pounds). Alipay, Tenpay and ChinaPay are the largest market players which took up 46.0%, 21.2% and 10.8% of the market respectively.¹³

It should be also noted that payment services undertaken by Internet third party payment providers are not limited to small value Internet payment, nor limited to C2C electronic payment. Instead, more and more Internet third party payment providers, such as Alipay and QuickMoney, are providing large value Internet payment, B2B and B2C electronic payment. Some Internet third party payment providers even do not set any funds transfer limit, such as QuickMoney.¹⁴ This has radically increased risks pertaining to Internet third party payment providers (for example, “retained funds” becomes a more severe problem that needs to be discussed, see part 3.2 of this chapter).

1.2 Industry features: from e-payment 1.0 to e-payment 2.0

The concept of e-payment 1.0 and 2.0 was suggested by the CEO of YeePay, Mr. Tang Bin.¹⁵ China Merchant Bank¹⁶ launched the first Internet payment service in 1998. From 1998 to 2005, this seven-year period was regarded as the era of e-payment 1.0. During this time, Internet third party payment providers merely provided pure payment gateway services for banks’ payment systems. In a few instances, value-added services, such as assurance function, were included as a part of the payment gateway services.

From 2005 onwards, China has entered the e-payment era 2.0. Compared with e-payment 1.0, there are four major features in the era of e-payment 2.0,

1). From the regulator’s perspective, regulators started to pay more attention to the new electronic payment industry, and increasingly more regulations and Measures are specifically

¹³ See the data @ http://data.eguan.cn/yiguanshuju_126325.html (8 January 2014).

¹⁴ “Introduction of QuickMoney Renminbi payment” @ <http://gateway.99bill.com/> (8 January 2014).

¹⁵ The details of above features could be found in Tang Bin’s blog. @ <http://column.iresearch.cn/u/tangbin/archives/2007/3432.shtml> (8 January 2014).

¹⁶ <http://www.cmbchina.com/> (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

targeted on regulating new electronic payment services. In June 2010, the “Measures of Management on Non-Financial Institutions Payment Services” was released by the People’s Bank of China. It was a strong signal to the industry sent by the central bank which showed the People’s Bank of China’s determination to bring the Internet third party providers within the scope of financial regulation.

2). From the perspective of new technologies, a variety of new electronic payment mechanisms have been created, such as telephone payment, mobile payment, mobile phone purse payment, text messages payment, fingerprinting payment, membership purse payment etc;

3). From consumers perspective, in e-payment 2.0 era, electronic payment services can be personalised and personally designed to meet specific requirements of individuals users. Consumers are in a more positive and better position to influence the driving direction and development of the new electronic payment services, instead of negatively following up existing electronic payment services purely led by payment services providers. A latest example is the Tenpay Open Platform System.¹⁷ Inspired by the App Store, the idea of Tenpay Open Platform System is to attract third party developers to the Tenpay Open Platform to develop applications functions in accordance with the needs of consumers. The applications functions could cover many areas of people’s daily life, such as car-hiring, booking doctors, paying utilities bills, etc. In the Tenpay Open Platform, Tenpay itself is no longer developing further application services to meet the needs of hundreds of millions of customers. Instead, Tenpay merely provides a platform.¹⁸

4). From the industry perspective, the demand of electronic payment does not only come from electronic commerce and Internet-related new economy, but also from traditional industries and traditional economy as well, such as publishing, travelling, flight tickets and education.

¹⁷ See Tenpay Open Platform @ <http://open.tenpay.com/main/index.jhtm> (8 January 2014).

¹⁸ Jiang, Rong (姜蓉) & Pang, Huawei (庞华玮) “Third party management measures will be implemented, licensing is not the most important element.” @ <http://tech.sina.com.cn/i/2010-08-08/09434520115.shtml> (8 January 2014).

The applications of electronic payment are diversified. In some areas, the whole industry turns to paperless, and electronic payment has been comprehensively used in the entire market. For example, from 16 October 2006, paper-based flights tickets had been completely eliminated from flights tickets market, and no paper-based flights tickets can be purchased through flights agencies in China thereafter.¹⁹

2. A very crucial legislation—“Measures of Management on Non-Financial Institutions Payment Services”

Before making the legal analysis, the author would like to discuss a very important legislation — the “Measures of Management on Non-Financial Institutions Payment Services” in detail. The original draft of this legislation was named the “Measures of Management on Payment and Clearance Organisations” which was released for public consultations in June 2005.²⁰ Later on, the second version of the consultation draft was “confidentially” discussed in a colloquium run by the People’s Bank of China.²¹ After 5 years of consultations and discussions, eventually, the formal and official legislation, the “Measures of Management on Non-Financial Institutions Payment Services” was issued in June 2010 and took effect on 1 September 2010. The author shall, first of all briefly summarize the main contents of this important legislation and its legal implications, and then attempt to identify its major pitfalls which may well negatively influence the development of China’s electronic payment and electronic commerce.

The “Measure of Management on Non-Financial Institutions Payment Services” consists of five chapters and 50 articles. Chapter one (article 1-6), “General Principles”, stipulates

¹⁹ “Paper-based flights tickets will be eliminated from the market, and electronic tickets will be nationwide used in civil aviation by the end of this year”, @ <http://news.sina.com.cn/c/2006-10-16/010511243562.shtml> (8 January 2014).

²⁰ Full Chinese text of the first consultant version of “Measures of Management on Payment and Clearance Organisations” @ <http://www.pbc.gov.cn/publish/zhifujiesuansi/1068/2010/20100914155548493862260/20100914155548493862260.html> (8 January 2014).

²¹ Information News on “Measures of Management of Payment and Clearance Organisations” @ http://news.xinhuanet.com/ec/2005-11/21/content_3810396.htm (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

purposes of the legislation, applications and admissions of payment services, supervisory duties of the People’s Bank of China and general operational principles of payment institutions. Due to the significance of the scope of the Measures, the author believes that it is necessary to summarise the relevant major articles here for discussions in part 3 of this chapter below:

Article 2 states:

“Non-Financial Institutions Payment Services in the Measures means that acting as agencies, Non-Financial Institutions provide some or all of the following funds transfer services to payers and payees:

- (1) Network payment;
- (2) Pre-paid cards issuance and acceptance;
- (3) Bank cards acquiring services
- (4) Other payment services stipulated by the People’s Bank of China

Network payment in the Measures means funds transfers between payers and payees through public Internet or specialised networks, which include currency transfers, Internet payment, mobile phone payment, fixed telephone payment, digital TV payment, etc.

Pre-paid cards in the Measures means that prepaid value is issued with commercial purposes, and used outside issuers to purchase commodities and services. Pre-paid cards can be issued in forms of cards and passwords with magnetic, chips or other technologies.

Bank cards acquiring services in the Measures means acquiring currency funds on behalf of bank cards chartered merchants through points of sales (POS).”

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

Chapter two (article 7-16), “Applications and Admissions”, primarily stipulates payment market access conditions for non-financial institutions, and two-tier examination and approval procedurals for “Payment Services Licenses” by the People’s Bank of China. Market access conditions focus on the characteristic of the applicant’ institution, registration capital, anti-money laundering measures, payment services facilities, credibility status and qualifications requirements on leading investors, and so on so forth. Additionally, this chapter clarifies the examination and approval requirements on the alteration²² and termination of payment institutions.

Chapter three (article 17-39), “Supervision and Management”, stipulates payment institutions’ duties and obligations in areas of normative operations, funds security and system operations.

- Normative operations primarily emphasise that payment institutions must undertake payment businesses within approved scope; report, keep records and disclosure the situation of business charging standards; establish and disclosure services agreements; check customers’ identifications information; keep customers’ commercial secrets; retain business and accountancy archives; issue invoices accordingly, etc.
- The funds security primarily emphasise that a payment institution must store customers’ reserve funds in only one commercial bank²³ with special accounts, and the funds must be used only in accordance with the customers’ instructions.
- System operation primarily emphasizes that payment institutions must possess necessary technological instruments, disaster recovery capabilities and crisis

²² The “alteration of payment institutions” covers takeover of one institution by another; merger and acquisition of payment institutions; separation of payment institutions; changes of names, registration capital or organisations forms of payment institutions, etc. See article 14 of the Measures.

²³ Here, “only one commercial bank” means that all a payment institution’s accounts must be with the same commercial bank. For example, Alipay could store all its customers’ reserve funds in the Industrial and Commercial Bank of China (ICBC); and QuickMoney could store all its customers’ reserve funds in the China Construction Bank (CCB). It does not mean that all payment institutions’ accounts must be with the same commercial bank. Different providers can use different banks.

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

management capabilities. Additionally, payment institutions must cooperate with the People’s Bank of China on relevant supervision and regulations.

Chapter four (article 40-47) is penalty provisions, which clarifies legal obligations of staff in the People’s Bank of China, commercial banks, payment institutions and other relevant entities.

Chapter five (article 48-50) is supplementary, which clarifies requirements during the interim periods of this Measures and its implementation date.

On 3 December 2010, in order to implement the Measures, the People’s Bank of China issued the “Implementation Rules of the Measures of Management on Non-Financial Institutions Payment Services”²⁴ after several months of consultations.

3. Legal issues on Internet third party payment providers: the relationship between the state and providers

3.1 Barriers to entry for Internet third party payment providers to operate as legitimate providers

3.1.1 Why the People’s Bank of China proposed to impose licensing?

Generally speaking, protecting consumers, protecting the payment system, ensuring stability of the payment system, and reducing risks pertaining to payment activities are the common justifications of regulating payment system and licensing payment service providers (see part 2 in chapter 3 of the thesis for extensive discussions of regulatory theories). But there are some more reasons when it comes to China’s case.

²⁴ See full text @ <http://www.pbc.gov.cn/publish/goutongjiaoliu/524/2010/20101203174523996133451/20101203174523996133451.html> (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

First of all, it is the author's speculation that the reason and consideration for the People's Bank of China to impose licensing is that, with the background of fully opening up financial services industry to foreign investors by 11 December 2006,²⁵ the People's Bank of China and other regulators were concerned about the invasion of foreign capital at the point in time (in 2005) that the first consultation version of the "Measures of Management on Payment and Clearance Organisations" was released. By the year of 2005, China's domestic Internet third party payment providers were at their embryo stage of development, while international giant like Paypal had already established itself as a transnational major player in the Internet payment industry. Issuing licenses as well as controlling the proportion of foreign capital could strengthen China's domestic Internet third party payment providers, and push them to merge or to be merged, so as to compete with their potential competitors from abroad, especially the electronic payment giant--Paypal.

However, it is still the author's speculation that, by investigating the market proportion of small value electronic payment, the People's Bank of China has realised that China's local electronic payment brands, including Alipay, TenPay, China UnionPay, QuickMoney, IPS and etc, have dominated over 70% of the whole market; Paypal's market proportion is as little as 1.3%.²⁶ The threat from foreign counterparts is very limited, and China's domestic Internet third party payment providers are strong enough to sustain competitions from international giants. Therefore, the regulator did not impose the licensing scheme through the "Measures of Management on Non-Financial Payment Services" until June 2010. This point

²⁵ When China joined the WTO, the organization demanded China to comply with special obligations concerning the bank business in the country. China had to agree to open their bank sector completely to foreign banks within five years after joining the WTO from 2001-2006. China specifically agreed, that it would allow foreign banks to accomplish foreign currency business without any market access or national treatment limitations, and to conduct foreign currency business with foreign-invested companies and foreign individuals, subject to certain geographic restrictions. Two years after joining the WTO, foreign banks should have been able to conduct domestic currency business with Chinese companies subject to special geographic limitations, and within five years china agreed to lift all geographic restrictions. China also agreed that foreign banks are allowed to provide financial leasing services at the same time as their Chinese counterparts. See more comments on the implementation of this agreement @ <http://www.chinasuccessstories.com/2008/02/11/banking-industry-china-part-two/> (8 January 2014).

²⁶ This figure came from the "Report on 2007-2008 China Electronic Payment Industry Development" by Iresearch Consultant @ <http://news.iresearch.cn/viewpoints/76121.shtml> (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

can be linked to the justification that “Governments may want to maintain national autonomy from international corporations [and competitions]”.²⁷

Secondly, the Internet third party payment market grows very fast, but it was unclear who the successful Internet third party payment market providers will be. By the end of March 2010, over 260 non-financial institutions have submitted required registration materials to the People’s Bank of China, most of which are undertaking Internet payment, mobile payment, telephone payment, pre-paid card issuance and other third party payment services.²⁸ By the end of June 2010, the number of Internet third party payment enterprises reached 320 according to statistical data from China Electronic Commerce Research Centre.²⁹ However, among those 320 companies, only approximately 100 companies are doing authentic Internet third party payment services, half of them are small companies which merely provide services for 1-2 customers (their customers are major companies). They are either affiliated to major Internet third party payment companies, or merely provide so-called “personalised” services for major companies. Among those 320 companies, fewer than 20 companies are known by the general public, such as Alipay, Tenpay and QuickMoney.³⁰ Eliminating disqualified and unauthentic players can be done through imposing licensing schemes.

Thirdly, the competition among Internet third party payment providers is fierce. Before 2005, the average transaction fee charged by China’s Internet third party payment providers was 1%. This figure dropped to 0.3% in 2008. In order to attract customers, Internet third party payment providers primarily focus on low price competition rather than technology innovation and competition on services quality.³¹ This unhealthy competition argument can

²⁷ See discussions of this point in part 2.2.3 in chapter 3 of the thesis -- “Specific and standard justifications of government regulation”. The words [and competitions] was added by the author.

²⁸ Zhou, Yuanying (周元英) & Wei Yuanming (魏远明), “Blaming third party payment: lack of regulation and in chaos”@ http://tech.sina.com.cn/i/2010-08-11/13194533163_3.shtml (8 January 2014).

²⁹ Zhou, Yuanying (周元英) & Wei Yuanming (魏远明), “Blaming third party payment: lack of regulation and in chaos”@ http://tech.sina.com.cn/i/2010-08-11/13194533163_3.shtml (8 January 2014).

³⁰ Zhou, Yuanying (周元英) & Wei Yuanming (魏远明), “Blaming third party payment: lack of regulation and in chaos”@ http://tech.sina.com.cn/i/2010-08-11/13194533163_3.shtml (8 January 2014).

³¹ Zhou, Yuanying (周元英) & Wei Yuanming (魏远明), “Blaming third party payment: lack of regulation and in chaos”@ http://tech.sina.com.cn/i/2010-08-11/13194533163_3.shtml (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

be linked to the “anti-competitive behaviour and predatory pricing” regulatory theory,³² as Professor Robert Baldwin pointed out that “markets may be deficient not merely because competition is lacking: they may produce undesirable effects because firms behave in a manner not conducive to healthy competition.”³³

Fourthly, several criminal-related activities are carrying out through Internet third party payment providers, such as online gambling, money laundering and online pornography. Although, in most cases, Internet third party payment providers are not directly committing those crimes, they are providing a safe and anonymous channel for criminals to pay and receive money. In some cases, internal staff and managers from Internet third party payment providers even directly commit crimes. For example, in June 2010, police in Suzhou have arrested a senior manager from QuickMoney who helped foreign gambling groups to transfer gambling funds up to RMB 3 billion Yuan.³⁴ (This argument can be linked to the “social solidarity and social justice” regulatory theory, because the regulation of money laundering, online gambling and online pornography can be regarded as regulations which could further social solidarity.³⁵)

All the above reasons could justify that Internet third party payment providers need to be regulated, and one of the most obvious regulatory measures is to control market access by introducing licensing scheme. Therefore, in the “Measures of Management on Non-Financial Institutions Payment Services” the People’s Bank of China imposed the following licensing scheme on non-financial institutions which engage payment and clearance services.

Article 3 states:

³² See relevant theoretical discussions in part 1.2.6 in chapter 3 of the thesis.

³³ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 19.

³⁴ Zhou, Yuanying (周元英) & Wei Yuanming (魏远明), “Blaming third party payment: lack of regulation and in chaos”@ <http://tech.sina.com.cn/i/2010-08-11/13194533163.shtml> (8 January 2014).

³⁵ See relevant theoretical discussions in part 1.2.12 in chapter 3 of the thesis.

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

“If a non-financial institution provides payment services, it must acquire a ‘Payment Services License’ to become a ‘Payment Institution’ in accordance with the Measures.”

“The ‘Payment Institution’ must be regulated and supervised by the People’s Bank of China.”

“Without the permission of the People’s Bank of China, non-financial institutions must not engage in payment services by any means.”

Article 9 states:

“The minimum registration capital is RMB 100 million Yuan for applicants who plan to provide nationwide payment services; the minimum registration capital is RMB 30 million Yuan for applicants who plan to provide payment services at provincial (autonomy regions and directly governed cities) level. The minimum registration capital must be actually paid currency capital.”

3.1.2 The current licensing scheme is too restrictive, because its minimal registration capital requirements are too restrictive

Although the author agrees that there should be licenses for Internet third party providers to operate as legitimate providers, the author argues that the current licensing scheme is too restrictive, because its minimum registration capital requirements are too restrictive. (The licensing point can be linked to the “bank regulation and bank supervision” theories,³⁶ as Professor Rosa Lastra argued that “while entry barriers in the banking business should not be too lax, neither should they be so restrictive that they lead to inadequate competition. A

³⁶ See relevant theoretical discussions in part 2.1 in chapter 3 of the thesis.

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

delicate balance between stability and efficiency must be achieved in the design of a country's bank chartering policies.”³⁷⁾

The first reason to support the author's argument is that, the “Measures of Management on Non-Financial Institutions Payment Services” covers different types of non-financial institutions payment services which include Internet payment, pre-paid cards issuance and acceptance, bank cards acquiring services, and other payment services stipulated by the People's Bank of China (see article 2 of the Measures). These are very different non-financial institutions which encompass both online and offline payment services. After the issuance of the “Implementation Rules of the Measures of Management on Non-Financial Institutions Payment Services (Consultation Version)” by the People's Bank of China in September 2010, in Shanghai, 56 non-financial payment services institutions have made informal applications³⁸ for the “Payment Services Licenses” to the Shanghai Headquarter of the People's Bank of China. 43 out of the 56 institutions failed, many of which are pre-paid cards institutions and banks cards acquiring institutions. It was believed that the main reason of their failure was that they cannot meet the minimum registration capital requirements, either the RMB 100 million Yuan for nationwide services, or the RMB 30 million Yuan for regional services. For example, the largest pre-paid cards issuance institution in China's financial centre ---- Shanghai is Bai Lian³⁹ E-Commerce. The registration capital of Bai Lian is merely RMB 50 million Yuan, which could not meet the Measures' minimum registration requirements for nationwide services. Another example is that the popular Shanghai Smart Pass,⁴⁰ which provides payment services for over 6000 business customers, has only USD 2 million (roughly equivalent to RMB 13 million Yuan) registration capital which cannot even meet the regional minimal registrations requirement set up by the Measures. There are only two choices for those tested and failed institutions: either they terminate their services and leave the non-financial institutions payment market, in which case only a few wealthy

³⁷ Lastra, Rosa, *Central Banking and Banking Regulation*, (London: Financial Markets Group, 1996), p. 109-110.

³⁸ The reason why it was merely a test is because the “Implementation Rules of the Measures of Management on Non-Financial Institutions Payment Services” had not been formally issued at that time. The “Implementation Rules” was issued on 3 December 2010.

³⁹ <http://www.blemall.com/> (8 January 2014).

⁴⁰ <http://www.smartpass.com.cn/> (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

institutions would survive in the market and cause potential monopoly; or they obtain tens of millions of RMB capital injection from shareholders, which appears to be very difficult.⁴¹

Therefore, the author suggests that it is inappropriate to put different types of non-financial payment services institutions in the same basket. A universal registration capital requirement is too restrictive for most pre-paid cards institutions and banks cards acquiring institutions. The “Measures of Management on Non-Financial Institutions Payment Services” would more accurately be named as the “Measures of Management on Online/Internet Third Party Payment Platform Providers” or similar terms, and it should specifically focus on regulating the Internet third party providers. Additionally, the People’s Bank of China should consider drafting other less restrictive Measures to tackle the offline pre-paid cards payment services and offline banks cards acquiring services.

The second reason to justify the author’s argument is through horizontal comparisons between EU law⁴² on the issue of minimum capital requirements for setting up electronic money issuers and the Chinese law on the issue of minimum capital requirements for setting up non-financial payment services institutions.

In the European Union, article 4 of the new Electronic Money Institutions Directive 2009/110/EC states that:

“Member States shall require electronic money institutions to hold, at the time of authorisation, initial capital, comprised of the items set out in Article 57 (a) and (b) of Directive 2006/48/EC, of not less than EUR 350, 000”.

⁴¹ “A test of third party payment licenses application, over 70% applicants failed”
@<http://tech.sina.com.cn/i/2010-11-30/06084922618.shtml> (8 January 2014).

⁴² See extensive discussions of the EU Electronic Money Directives in part 2 in chapter 6 of the thesis.

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

The EUR 350,000 is reduced from the original EUR 1 million required by the original Electronic Money Directive 2000/46/EC (Article 4). It is an indication that high minimum capital requirement was thought to be a problem.⁴³

Furthermore, Article 6 of the Payment Service Directive 2007/64/EC states that:

“Member States shall require payment institutions to hold, at the time of authorisation, initial capital, comprised of the items defined in Article 57 (a) and (b) of Directive 2006/48/EC as follows:

(a) where the payment institution provides only the payment service listed in point 6 of the Annex,⁴⁴ its capital shall at no time be less than EUR 20,000;

(b) where the payment institution provides the payment service listed in point 7 of the Annex, its capital shall at no time be less than EUR 50,000; and

⁴³ See Explanatory Memorandum to Proposal for a Directive of the European Parliament and of the Council on the taking up, pursuit and prudential supervision of the business of electronic money institutions, amending Directives 2005/60/EC and 2006/48/EC and repealing Directive 2000/46/EC, COM(2008)627 final 9 October 2008.

⁴⁴ The Annex states that:

1. Services enabling cash to be placed on a payment account as well as all the operations required for operating a payment account.
2. Services enabling cash withdrawals from a payment account as well as all the operations required for operating a payment account.
3. Execution of payment transactions, including transfers of funds on a payment account with the user's payment service provider or with another payment service provider:
 - execution of direct debits, including one-off direct debits,
 - execution of payment transactions through a payment card or a similar device,
 - execution of credit transfers, including standing orders.
4. Execution of payment transactions where the funds are covered by a credit line.
5. Issuing and/or acquiring of payment instruments.
6. Money remittance.
7. Execution of payment transactions where the consent of the payer to execute a payment transaction is given by means of any telecommunication, digital or IT device and the payment is made to the telecommunication, IT system or network operator, acting only as an intermediary between the payment service user and the supplier of the goods and services.

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

(c) where the payment institution provides any of the payment services listed in points 1 to 5 of the Annex, its capital shall at no time be less than EUR 125,000.”

By evaluating the above figures of initial capital requirements for electronic money institutions and various payment services providers, the highest capital requirement EUR 350,000 is roughly equivalent to RMB 3 million Yuan. It is only 10% of China’s minimum registration capital requirement for establishing regional non-financial payment services institutions. The RMB 3 million Yuan is only 3% of China minimum registration capital requirement for setting up nationwide non-financial payment services institutions. This capital is considered sufficient to provide payment services across the entire EU, which is comparable to China in size (the EU population is substantially lower than China, but its GDP and volume of payments by value is greater than China). In terms of the US law, there is no specific registration capital requirements imposed on Internet third party payment providers or electronic money issuers yet.

The horizontal comparison clearly shows that China’s current registration capital requirements is far higher than that required by other countries (especially, considering China is still a developing country), and therefore, the licensing scheme for non-financial payment service institutions is over restrictive.

Having argued that the licensing scheme is over restrictive in terms of minimum capital, it is a good sign to know that Ouyang Weimin (欧阳卫民), the former Head of the Department of Payment and Settlement, the People’s Bank of China, said “there is no restriction of how many licenses should be issued, as long as companies meet relevant stipulations, licenses will be granted”.⁴⁵

3.1.3 The role of the market

⁴⁵ “Licenses numbers of third party providers are not restricted”@ <http://tech.sina.com.cn/i/2010-11-30/01474921756.shtml> (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

Having suggested that current licensing scheme is over restrictive, the author further suggests that it is better to let the market play a more important role rather than rely on over restrictive licensing or the government.

Firstly, issuing restrictive licenses will stifle innovation, which includes both technology innovation and business model innovation. The reason why Internet third party payment providers do have surviving space is because they are providing cutting-edge technology, advanced technology, and undertaking those businesses which commercial banks are unwilling to do or incapable to do. For example, telephone payment is a brand new payment channel⁴⁶ initially developed by YeePay, and has spread nationwide to other Internet third party payment providers. Also for example, the IPS has developed mobile payment platform, which is based on the popularity of mobile phones in China, consumers can link their mobile phones with their bank accounts and accomplish the payment process through text messages.⁴⁷ A latest technological innovation example is the Tenpay Open Platform which has been mentioned in part 1.2 of this chapter. All those innovation are developed without restrictive licensing barriers. We can imagine that if restrictive licensing schemes had been introduced in 2005 or earlier, emerging high technology companies, like YeePay, may not even be allowed to enter the electronic payment market, and to contribute their new ideas.

From the perspective of business model innovations, Internet third party payment providers have been expanding their business from C2C payment, which was where Internet third party payment providers originated, to B2C payment market and even B2B payment market.⁴⁸ Those technological innovations and business models innovations are all introduced spontaneously by Internet third party payment providers themselves and stimulated by severe market competitions. We can imagine that the innovation can be severely slowed if restrictive licensing rules were imposed earlier.

⁴⁶ See in-depth analysis on telephone payment in “Telephone Payment: Innovative Product or Innovative Concept?” @ <http://tech.sina.com.cn/i/2006-08-02/16531067518.shtml> (8 January 2014).

⁴⁷ IPS mobile payment introduction, @ <http://www.ips.com/News/NewsDetail.aspx?id=10697> (8 January 2014).

⁴⁸ “Electronic payment market has been severely differentiated, and B2C model becomes the new growing point” @ http://blog.irj.com.cn/110527010041232471_2613729a.html (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

Secondly, if we stand in a higher level to think about electronic payment or even electronic money (here electronic money is generally used compared with paper-based money. There is rigorous research on the regulation of electronic money in the EU and UK in chapter 6 of the thesis) in a bigger picture, we can see that electronic payment services have become a worldwide irresistible trend. Eventually, electronic payment, Internet payment, mobile payment and other new electronic payment instruments will penetrate into and positively influence ordinary people's daily life. This trend might evolve faster in some countries (in the US, EU and China), and slower in others (in the Middle East and Africa). In China, at present, Alipay, QuickMoney, IPS, TenPay and other Internet third party providers are standing in the frontline of the evolution of the forms of money and payment. Just as Mr. Guan Guoguang, the CEO of QuickMoney, confidently and ambitiously stated: "what QuickMoney aims to do is not merely resolve the payment problem for Internet trades, rather, we aim to fundamentally reform the trading methods in people's daily life, and we are gaining our market opportunities through the construction of basic infrastructures, basic applications, value-added services and comprehensive revolution opportunities from the huge transition from cash economy to electronic economy. It is a brand newly-emerged industry, and the power and influence of this transformation might be as important as the invention of the train and the generation of the Internet itself, it is a magnificent industry for one hundred years!"⁴⁹ If the Chinese government and the People's Bank of China could understand and observe electronic payment industry from such a historical point of view, the author believes that restrictive licensing scheme will not be imposed, just like nobody will force a new-born baby to shoulder heavy burdens and to refrain him/her from growing-up.

In sum, as the Chinese ancient saint Lao Zi said, the first class morality is by doing everything when doing nothing,⁵⁰ licensing scheme for Internet third party payment providers to enter the electronic payment market as legitimate players must not too restrictive at the current stage, and the market should be playing a more significant role.

⁴⁹ Lv Yi Huang Shan (pen name), "Four streams of power are leading the development direction of online payment market, and the future is still unpredictable" @ <http://column.iresearch.cn/u/aidinggeer/archives/2007/13560.shtml> (8 January 2014).

⁵⁰ Lao Zi (老子), Dao De Jing (the Book of the Way) (道德经), chapter 38.

After making the arguments for the licensing scheme, regulation of retained funds is another crucial point to be discussed within the relationship between the state and Internet third party providers.

3.2 Retained funds in Internet third party payment providers and the regulation

Retained funds are money accumulated by Internet third party payment providers primarily for two reasons. One reason is funds pre-paid by customers to the Internet third party payment providers; the other reason is due to escrow services provided by the Internet third party payment providers.

It should be, first of all, noted that “retained funds” is different from “risk reserve funds”. “Risk reserve funds”, required by the first and second draft of the “Measures of Management on Non-Financial Institutions Payment Services”⁵¹ (which was then named as the “Measures of Management on Payment and Clearance Organisations”), are funds deposited by payment and clearance participants with payment and clearance organisations⁵² to reduce liquidity risk and insolvency risk.⁵³ By contrast, “retained funds”, generated from customers’ pre-paid funds and escrow service providers by Internet third party providers, is held by the Internet third party payment providers themselves.

In the first consultation versions of the “Measures of Management on Non-Financial Institutions Payment Services”, issues relating to retained funds, such as who are owners of the retained funds and how to deal with retained funds interest, have not been touched. The author suggests that there are at least two reasons why the People’s Bank of China has “ignored” these issues:

⁵¹ Article 38 of the first consultation version of the Measures.

⁵² In the first consultation version of the Measures, “payment and clearance participants” include commercial banks and other financial institutions participants (see article 2 and 3(5)).

⁵³ See article 38 & 39 of the first consultation version of the Measures.

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

First, from categories of payment and clearance organisations specified in the “Measures”,⁵⁴ we can observe that one of the original intentions of the first consultation versions of the “Measures” is to draw a universal standard line, and to regulate all payment and clearance organisations in China in a single basket, which covers (but not limited to) the Chief Clearance Centre of the People’s Bank of China, Internet third party payment providers, telecommunication service providers, mobile payment providers, commercial banks, non-bank financial institutions which engages payment and clearance business, Visa cards, Master cards associations and other cards associations, the branch of SWIFT, etc. However, not all the payment and clearance organisations would generate retained funds when conducting payment and clearance transactions. For example, in the large value real-time payment system of the China National Advanced Payment System (CNAPS), funds are transferred in a real-time basis, and no funds are retained.⁵⁵ Also, the branch of SWIFT and cards associations, which merely handle payment data and financial information, do not generate retained funds. Therefore, the first consultation version of the “Measures of Management on Non-Financial Institutions Payment Services” has left out the retained funds.

The second reason why the “retained funds” issues have been ignored is that, the first consultation version of the “Measures of Management on Non-Financial Institutions Payment Services” was drafted in 2005. At that time the “retained funds” was not a critical problem in the electronic payment market, and it did not attract the attention of the People’s Bank of China. Known as the initial year of the electronic payment, the year of 2005 is the year that Internet third party providers began to upgrade from pure payment gateway model to virtual

⁵⁴ Art. 2, first consultation version of the “Measures of Management on Payment and Clearance Organisations”. It defines that “payment and clearance organisations” are legal entities which provide payment and clearance services for participants, which include:

- (1) Legal entities which provide exchange and calculation services of paper-based negotiable instructions and settlement certificates for banking and financial institutions;
- (2) legal entities which provide exchange and calculation services of payment instructions for banks cards and card-based payment institutions, or specialised systems;
- (3) legal entities which provide exchange and calculation services of electronic payment instructions for banking and financial institutions and individuals;
- (4) legal entities which provide exchange and calculation services of payment instructions for other participants.

⁵⁵ Yang, Xiaosheng. (杨晓晟), “Introduction of the construction situation of China National Advanced Payment System”, “Southern China Finance Computer” (华南金融电脑), issue 9, 2006. Abstract is available @ <http://scholar.ilib.cn/Abstract.aspx?A=hjrdn200609022> (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

accounts model and value-added services model. As it has been analysed before, pure payment gateway model only transfer payment instructions and electronic data, but do not hold any financial accounts in commercial banks, therefore no funds are retained. Funds may only be retained in the virtual accounts model, which is a post-2005 phenomenon. Thus, it is not a surprise that relevant regulation on retained funds has not been covered in the first consultation version of the “Measures of Management on Non-Financial Institutions Payment Services” in 2005.

In the finalised version of the “Measures of Management on Non-Financial Institutions Payment Services” 2010, the People’s Bank of China has addressed the retained funds issue seriously. More than seven articles (article 23, 24, 26, 27, 28, 29, & 30) are used to tackle the retained funds issue. Relevant points are examined in part 3.2.2 of this chapter.

Since the retained funds is not a unique phenomenon in Internet third party payment, rather, it has been existing for a long time in traditional banking payment practice. In the section below, the author will analyse how the retained funds is generate in traditional banking payment practice, and how funds are retained in the new Internet third party payment providers’ banks accounts in modern Internet era.

3.2.1 In traditional banking electronic funds transfers, retained funds in credit transfers differ from retained funds in debit transfers.

3.2.1.1 Retained funds in credit transfers

1) Retained funds in credit transfers among commercial banks and their customers

“Retained funds in credit transfer among commercial banks and their customers can be understood by analysing the process of the credit transfer. In credit transfers, there are three points in time that the fund might be retained. The first is between the point in time that the originator’s bank has debited the originator’s account and the point in time that the originator’s bank sends out this fund (if the originator’s bank does not send the fund

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

instantly). The second is the time that the fund travels between the originator's bank and the beneficiary's bank, at which stage the fund might be retained by one or more than one intermediary banks (if there are intermediary banks). The third is between the point in time that the beneficiary's bank received the fund and the point in time that the beneficiary's account has been credited. In this scenario, the originator and the beneficiary have to bear the cost of the retained fund,⁵⁶ i.e. loss of interest.

2) Retained funds in credit transfers between the central bank and a commercial bank

“When credit transfer is facilitated between the central bank and a commercial bank, if the central bank debits the originator's bank account at the same time crediting the beneficiary's bank account, and then no fund will be retained by the central bank. However, if the crediting to the beneficiary's bank account is later than the debiting from the originator's bank account, then the central bank is retaining the fund and it may make use of the retained fund. This will reduce the correspondent accounts' balance in the originator's bank which is maintained within the central bank, and therefore it will also reduce the reserve of the originator's bank.”⁵⁷

There are four possible reasons why the central bank retains the fund, “firstly, due to the inefficiency of the central bank's processing system itself. Secondly, due to the central bank's processing centre is far away from commercial banks' processing centres (which is more likely to be a justification in paper-based payment age, such as the exchange of cheques, but less likely in modern electronic payment era). Thirdly, periodically delay (which is not a constant phenomena) due to peak time congestion or occasionally operational errors.”⁵⁸ Fourthly, the central bank may intentionally build in delay, so as to allow retention of the fund and thus gain benefits.

⁵⁶ Shuai, Qinghong (帅青红), *Electronic Payment and Settlement System*, (Sichuan, Chengdu: Southwestern University of Finance and Economics Press, 2006) p. 337.

⁵⁷ Shuai, Qinghong (帅青红), *Electronic Payment and Settlement System*, (Sichuan, Chengdu: Southwestern University of Finance and Economics Press, 2006) p. 337.

⁵⁸ Shuai, Qinghong (帅青红), *Electronic Payment and Settlement System*, (Sichuan, Chengdu: Southwestern University of Finance and Economics Press, 2006) p. 337.

3.2.1.2 Retained funds in debit transfers

1) Retained funds in debit transfers between a commercial bank and its customers

“Retained funds in debit transfers a commercial bank and its customers can also be understood by analysing the process of debit transfers. In debit transfers, there are also three possible durations in time that funds might be retained. The first is between the point in time that the beneficiary’s bank credits the beneficiary and the point in time that the originator’s bank is debited, which means the originator (rather than the originator’s bank) could retain the fund during this period of time. (This period of time can be zero if the originator’s bank debits the originator’s account at the same time that the beneficiary’s bank credits the beneficiary’s account). In this scenario, it is equivalent that the beneficiary’s bank issues a short-term interest-free loan to the beneficiary during that period of time, and this short-term interest-free loan ends in the point in time that the beneficiary’s bank receives the same amount of funds from the sender (the sender could be either the originator’s bank or an intermediary bank). The second is between the point in time that the originator’s bank debits the originator’s account and the point in time that the originator’s bank sends out the fund to its recipient, which could be retained by either the beneficiary’s bank or an intermediary bank. The third possibility is the duration between the point in time that the fund has been sent out by the originator’s bank and the point in time that the fund reaches the beneficiary’s bank, in which case, the fund is retained by any intermediary banks.”⁵⁹

2) Retained funds in debit transfers between the central bank and commercial banks

“If the debit transfer involves the central bank between the originator’s bank and the beneficiary’s bank, because the originator’s bank account within the central bank is debited by the central bank after the beneficiary’s bank’s account within the central bank is credited by the central bank (there is a time gap between the debit and the credit), then the originator’s bank may also retain the fund during the time gap, and the originator’s bank benefits with the price of the loss of the central bank, and also the originator’s bank increases its reserve due to

⁵⁹ Shuai, Qinghong (帅青红), *Electronic Payment and Settlement System*, (Sichuan, Chengdu: Southwestern University of Finance and Economics Press, 2006) p. 338.

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

the retained fund. Essentially, the central bank is providing subsidy to the originator's bank and also the whole banking system, and eventually, this sort of subsidy has to be paid by taxpayers, because the subsidy reduces the profit of the central bank.”⁶⁰

In China, because large value payment system adopts real-time payment mechanism⁶¹, the retained funds issue in traditional banking electronic funds transfers only exist in small value payment system, which is primarily regulated by “Measures of Management on Small Value Payment Services”⁶² issued by the People's Bank of China.

Article 16 of the “Measures of Management on Small Value Payment Services” states:

“The Small Value Payment System operates on a 7*24 basis. The system working day is the natural day, and its funds clearance time is the working time of Large Value Payment System.”

Regarding the working time of the Large Value Payment System, article 11 of the “Measures of Management on Large Value Payment Services”⁶³ states:

“The working time of the Large Value Payment System is the State legal working hours, the operation time will be stipulated by the People's Bank of China, which can be adjusted in accordance with the need of the management.”

⁶⁰ Shuai, Qinghong (帅青红), *Electronic Payment and Settlement System*, (Sichuan, Chengdu: Southwestern University of Finance and Economics Press, 2006) p. 338.

⁶¹ Article 2, “Measures of Management on Large Value Payment system (Provisional)” (大额支付系统业务处理办法), issued and implemented by the People's Bank of China on 9 September 2002.

⁶² Full text of the “Measures of Management on Small Value Payment System (Provisional)” (小额支付系统业务处理办法) can be seen in Chinese @ http://www.law-lib.com/law/law_view.asp?id=110551 (8 January 2014).

⁶³ Full text of the “Measures of Management on Large Value Payment System (Provisional)” can be seen in Chinese @ <http://www.chinalawedu.com/news/1200/22016/22021/22175/22188/2006/3/wa0305253601623600216940-0.htm> (8 January 2014).

Having discussed retained funds in traditional banking electronic funds transfers (including the two types of most important payment methods, the credit transfer and debit transfer) we now need to examine funds retained by Internet third party payment providers, which is different from the retained funds in traditional banking practice.

3.2.1.3 Retained funds in Internet third party payment providers

Electronic funds transfers through Internet third party payment providers is credit transfer, because funds are pushed by the originators (the buyers) to the beneficiaries (the sellers) through Internet third party payment providers, and the communication flow and the movement of funds is in the same direction.

According to the analysis of the payment mechanism in chapter 2 of the thesis, it is clear that only virtual accounts in Internet third party payment providers can retain funds intentionally or unintentionally. Retained funds only exist in the virtual accounts model of Internet third party payment providers (see part 3.1.2.2 in chapter 2), but do not exist in the pure payment gateway model of Internet third party payment providers (see part 3.1.2.1 in chapter 2).

In traditional banking payment systems, as it has been discussed above, retained funds arise from the circulation and delivery process of the banking system, and it might be controlled or even completely eliminated by designing the payment mechanisms and payment operational rules as well as proper regulations carefully, for example, applying real-time payment mechanism to both large value and small value systems. However, in the Internet third party payment scenario, it is almost not possible to completely eliminate retained funds. In order to transfer funds to beneficiaries, originators need to top up their virtual accounts in Internet third party providers in advance, so that this part of pre-paid funds will be controlled and retained by the Internet third party providers.⁶⁴ Also, because of the lack of credit system⁶⁵ in

⁶⁴ Xu, Jing. (徐箐) & Hu, Haoyuan (胡皓渊), “Analysis of Internet payment issues”, @ <http://www.chinaeclaw.com/readArticle.asp?id=3797> (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

China, Internet third party payment providers (the virtual accounts model) are acting as credit agencies, and the Internet third party payment providers will only credit the beneficiaries' (sellers) virtual accounts when the Internet third party payment providers are notified by the originators (buyers) that relevant goods or services have been successfully delivered.⁶⁶ This kind of structure determines that funds have to be retained in the Internet third party payment providers for a considerable period of time, although this period of time can be shortened by various of means, such as accelerating the speed of delivery of goods and services, and efficiently designing the internal operational structure of Internet third party payment providers themselves and so on so forth.

Having clarified different mechanisms of retained funds, the author should discuss relevant points relating to the regulation of retained funds in the context of Internet third party payment.

3.2.2 Regulation of retained funds in Internet third party payment providers

There are a series of points regarding the regulation of retained funds that have to be considered.

3.2.2.1 Relevant points

(1) First relevant point: efficiency

⁶⁵ The existence of credit system allows people to purchase things and do business on credit. The lack of credit system or an inefficient credit system would tend to prevent people from doing business with strangers. Instead, they will only do business with friends, acquaintance or trusted partners. This is one of reason why the Chinese society is called an “acquaintance society”.

⁶⁶ Although exception does exist, for example, some Internet third party platforms, such as Alipay have provided a sort of direct payment service, which means the buyer (the originator) neither need to confirm the arrival of goods or services nor to notify Alipay and authorize Alipay to credit the fund to the seller (the beneficiary); the fund goes through directly to the seller, in which case, no funds will be retained. However, the other side of the story is that it also has provided the possibility for illegal traders to launder their dirty money through Alipay. See the special service provisions, Art. 7(3) in Alipay's Users' Agreement, @ http://help.alipay.com/support/help_detail.htm?help_id=1515 (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

The first relevant point is payment efficiency. One of the most important original motivations in developing Internet payment is to make payment, especially small value payment and micro payment, easier, quicker and more convenient than traditional payment mechanisms. Retained funds in Internet third party payment providers reduce the efficiency of the Internet payment chain as a whole, simply because funds are “stuck” in the hand of the Internet third party payment providers. A transaction as small as RMB 10 Yuan (roughly equivalent to GBP 1 Pound) could take several days for clearance and settlement.

In the finalised “Measures of Management on Non-Financial Institutions Payment Services” 2010, only article 5 briefly touches the efficiency issue by declaring a principle:

“Payment institutions shall follow the principle of safety, efficiency, honesty and fair competition. It must not harm any national interest, social and public interest, and legitimate interest of customers.”

Apart from the above article, no specific rules in relation to the efficiency issue appear either in the Measures or in its implementation rules.

The author agrees with the approach of addressing the efficiency issue by the People’s Bank of China. Because it is better to leave the efficiency issue to the market, instead of rigidly and inflexibly stipulating that “funds cannot be retained by Internet third party payment providers for more than a certain number of days (for example 3 days)”. Because the period of time the funds shall be retained largely depends on how efficient relevant goods and services can be delivered, which requires the cooperation of logistics, and which is out of the control of relevant Internet third party providers. Market power and the need of efficient settlement of funds from buyers and sellers will urge all providers to improve the efficiency of their systems.

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

A further point about the efficiency is that it is worth considering a backstop limit, for example, funds must be retained for no more than X days after the delivery, as a consumer protection measure. On the one hand, the stipulation of the “X days” should be reasonably long enough for the Internet third party payment providers; on the other hand, the “X days” stipulation should prevent all Internet third party payment providers from adopting the same terms which are excessively long and which could constitute a monopolistic status (the monopoly point can be linked to the theoretical discussion of the monopoly issue in part 1.2.1 in chapter 3 of the thesis).

(2) Second relevant point: liquidity

The second relevant point is liquidity. It might be argued that retained funds will reduce the liquidity not only within the Internet third party payment system, but also the whole financial system due to the dramatically explosive growth of transaction volume through Internet third party platforms. However, the author suggests that, the People’s Bank of China does not have to worry about the liquidity issue, because the Internet third party payment providers hold the retained funds in commercial banks. Commercial banks will treat the retained funds as normal deposits, and invest them to make profits as usual. Thus, for buyers and sellers, funds are retained, but for commercial banks and the whole financial system, the funds are not retained.

(3) Third relevant point: intention

The third relevant point is Internet third party payment providers’ intention to retain funds. Actually, the structure of “virtual accounts model” of Internet third party payment providers is not the only reason of the generation of retained funds. Besides, Internet third party payment providers themselves might well intentionally postpone the payment, retain the funds, and take advantage of the large amounts of accumulated funds to generate profits, such as through high risk investments. For example, before the enforcement of the “Measures of Management on Non-Financial Institutions Payment Services” in September 2010, in the old Alipay’s users’ agreement, Alipay explicitly stated that,

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

“You understand that Alipay is neither a bank nor a financial institution, and Alipay’s services are not financial services; in accordance with the law of the People’s Republic of China, Alipay is unable to facilitate real-time funds transfer service, and you agree and accept reasonable duration of time that the funds on the way of being transferred.”⁶⁷

And also

“You agree that, during the time that your funds are in custody or received on your behalf or paid on your behalf, Alipay bears no risk if the funds depreciate, and Alipay bears no responsibility to pay you any interest arising from the retained funds.”⁶⁸

Can Internet third party payment providers actually profit from the retained funds? At present, the practice is that the interest arising from the retained funds saved in commercial banks is a major source of income for most Internet third party providers.⁶⁹ Almost all the Internet third party payment providers only open and maintain their accounts in small and new commercial banks. Because, at present, deposit-taking and loan-issuing are still the main profit channels for majority Chinese domestic commercial banks. And also due to the conventional ideas of the majority of ordinary people who do not trust small and newly-founded commercial banks

⁶⁷ The old Alipay’s Users’ Agreement, Art. 7(1), point 9. The original text in Chinese is “您了解本公司并不是银行或金融机构，“支付宝”服务非金融业务，按照中华人民共和国法律规定，支付宝服务并无法进行“即时”之金额转账服务，资金于途中流转的时间在合理范围内您是予以认同的。” @ http://help.alipay.com/support/help_detail.htm?help_id=1515 (8 January 2014). This old link has been replaced by the new Alipay Services Agreement @ http://help.alipay.com/lab/help_detail.htm?help_id=211403 (8 January 2014).

⁶⁸ Alipay’s Users’ Agreement, Art. 7(1), point 10. The original text in Chinese is “您同意，本公司无须对您使用支付宝服务期间由本公司保管或代收或代付的款项的货币贬值承担风险，并且本公司无须向您支付此等款项的孳息。” @ http://help.alipay.com/support/help_detail.htm?help_id=1515 (8 January 2014). Likewise, this old link has been replaced by the new Alipay Services Agreement @ http://help.alipay.com/lab/help_detail.htm?help_id=211403 (8 January 2014).

⁶⁹ “Central Bank: New Policy for Electronic Payment” (央行：电子支付新政), Internet Weekly (互联网周刊), 14th Nov. 2005. From China National Knowledge Infrastructure, accessed with passwords @ <http://www.cnki.net>

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

as much as they trust the “Big Four” state-owned commercial banks,⁷⁰ they tend to save their money in the “Big Four”. Thus, the “Big Four” is rarely in a position of deposits shortage. In contrast, those small and newly-established commercial banks and local city/rural commercial banks are often struggling to absorb sufficient deposits to survive and to develop. Naturally, the increasing large amounts of funds retained by Internet third party payment providers become an obvious target for those small and new commercial banks. With the increasing large quantity and increasing stability of such retained funds, Internet third party payment providers have been gaining more and more bargaining power when choosing which commercial bank to open and maintain accounts with, and Internet third party payment providers, normally, will choose the one who offers the highest interest rates.⁷¹ This sort of bargaining power and high interest rates are stimulating Internet third party providers to retain their customers’ funds as long as possible. (The bargaining power point can be linked to the “unequal bargaining power” regulatory theories,⁷² as Professor Robert Baldwin argued that “One precondition for the efficient or fair allocation of resources in a market is equal bargaining power. If bargaining power is unequal, regulation may be justified in order to protect certain interest.”⁷³)

Regarding the intention of the Internet third party payment provider retaining funds, the “Measures of Management on Non-Financial Institutions Payment Services” 2010 did not explicitly stipulate how long funds can be retained by the Internet third party payment provider.

⁷⁰ Namely, Bank of China, Industrial and Commercial Bank of China (ICBC), China Construction Bank (CCB) and China Agricultural Bank (CAB).

⁷¹ “Central Bank: New Policy for Electronic Payment” (央行：电子支付新政), *Internet Weekly* (互联网周刊), 14th Nov. 2005. From China National Knowledge Infrastructure, accessed with passwords @ <http://www.cnki.net>

⁷² See relevant theoretical discussions in part 1.2.8 in chapter 3 of the thesis.

⁷³ Baldwin, Robert, Cave, Martin, & Lodge, Martin, *Understanding Regulation, Theory, Strategy, and Practice* (2nd ed., Oxford: Oxford University Press, 2012), p. 20.

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

After the enforcement of the “Measures of Management on Non-Financial Institutions Payment Services” 2010, the above old Alipay Users’ Agreement was replaced by a new Alipay Services Agreement.⁷⁴ In the new Alipay Services Agreement, it is stated that:

“Article 4 (9) Alipay is not a bank or other financial institution; Alipay services are not financial services either; under this agreement, funds are all transferred by banks; and you understand and agree the reasonable funds circulation time.”

And

“During the time that your funds are in custody or received on your behalf or paid on your behalf, you fully bear the risk of funds depreciation and the risk of interest loss.”

Comparing the new Alipay Services Agreement with the old one, it is clear that Alipay has not made any substantial changes on its intention to retain funds. Thus, should the People’s Bank of China and the formal “Measures” mitigate Alipay and other Internet third party payment providers’ intention to retain the funds as long as possible to gain maximum profits? The author believes that the answer should be “No”, and the “Measures of Management on Non-Financial Institutions Payment Services” 2010 has made the right choice. Because this sort of intention is just a temporary phenomenon. Currently, Internet third party payment providers are still competing with each other through reducing commission fees charged from payment users, and majority of Internet third party payment providers cannot really even survive by charging transaction commission fees.⁷⁵ Therefore, their intention to earn the interest arising from retained funds is understandable. With the maturity of the electronic payment industry, more channels of profits-making shall be created, for example, charging higher service fees by providing more personalised and diversified payment products.

⁷⁴ See full text of the Alipay Services Agreement in Chinese @ http://help.alipay.com/lab/help_detail.htm?help_id=211403 (8 January 2014).

⁷⁵ “New policy will reorganize third party providers, and new regulation will be released in the third quarter”, @ <http://tech.163.com/06/0711/09/2LO81BTV000915BE.html> (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

Internet third party payment providers' intention of retaining funds is likely to be gradually reduced by market forces, and thus specific regulation on the intention of retaining funds is not required.

(4) Fourth relevant point: ownership and interest

The fourth relevant point is the ownership of the retained funds. What is the ownership of the retained funds? Do the retained funds belong to originators (buyers), beneficiaries (sellers), or Internet third party payment providers?

Taking the example of Alipay, when originators (buyers) top up their Alipay virtual accounts, funds are transferred from the originators' accounts to Alipay's accounts, because the originators' virtual accounts belong to Alipay. At this point, Alipay is playing a role of custodian in respect of the funds. The relationship between originators and Alipay is called storage contractual relationship according to the Chinese Contract Law 1999.⁷⁶ As stated by Alipay in its users' agreement:

“Custody: you can top up your Alipay accounts with the methods specified by this service, and entrust Alipay to hold your funds on your behalf.”⁷⁷

According to this statement, it is clear that when the originators' funds enter Alipay's accounts, the ownership of the funds has not been assigned, the originator is still the owner of the funds until the funds enter beneficiaries' (sellers) accounts maintained by the beneficiaries' commercial banks. When the funds enter beneficiaries' accounts, or the beneficiaries declare to accept the funds, the ownership of the funds is eventually assigned to the beneficiaries. Therefore, as the custodian of the funds, Alipay does not possess the

⁷⁶ Chapter 19 of the Chinese Contract Law 1999.

⁷⁷ Section 2 “Alipay Services Summary”, Art. 2 (1), Alipay services agreement @ http://help.alipay.com/lab/help_detail.htm?help_id=211403 (8 January 2014). The text in Chinese is “代管：您可以使用本服务指定的方式向您的支付宝账户充值，并委托本公司代为保管。”

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

ownership of the funds from the beginning to the end; rather, Alipay is just fulfilling its custody/storage obligation to those funds.⁷⁸

Additionally, the “Measures of Management on Non-Financial Institutions Payment Services 2010” has verified the author’s analysis. Article 24 of the Measures states:

“Customers’ retained funds accepted by payment institutions do not belong to the payment institutions’ own property.”

On this basis, according to the “contracts for storage” in the “Contract Law of the People’s Republic of China 1999”,

“On the expiry of the storage time period or when the storing party claims and gets back the article before the expiry, the safekeeping party shall return to the storing party the original article and the fruits generated therefrom.”⁷⁹

Alipay, as well as other Internet third party payment providers, has the obligation to pay interest to all its customers. And Internet third party payment providers cannot explain why the interest arising from the retained funds have not been paid to either the originators or the beneficiaries, except that they can explain – they keep the interest because their customer contracts say they can do it.

⁷⁸ The concept of storage in Chinese law is different from common law, in which concepts of storage (bailment) only apply to physical items, and not to intangibles like payment. However, in concepts of storage, the Chinese law treats the ownership of tangibles and intangibles (such as the currency and payment) in the same way.

⁷⁹ Art. 377, the “Contract Law of People’s Republic of China”. It’s original Chinese text is “第三百七十七条 保管期间届满或者寄存人提前领取保管物的，保管人应当将原物及其孳息归还寄存人。” The full text in English can be read @ http://www.novexc.com/contract_law_99.html (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

Presumably, it might be argued that, also according to the “contracts for storage” in the “Contract Law of the People’s Republic of China”,

“A safekeeping party keeping in store currency may return the currency of the same kind and in the same amount. In case of storing other replaceable articles, the safekeeping party may return to the storing party articles of the same category, quality and quantity according to the terms in the contract.”⁸⁰

Alipay, as well as other Internet third party payment providers, which are the safekeeping party in the above article, may return the currency of the same kind and in the same amount. However, the author argues that, article 378 is not emphasizing the amount of the currency that needs to be returned by the safekeeping party. Rather, this article is emphasizing “in case of storing replaceable things”, the safekeeping party may return the storing party the same category of things, because the things are replaceable. When it comes to the current situation in context, the two articles deal with different issues, article 377 shall apply. Article 378 is not applicable.

The “Measures of Management on Non-Financial Institutions Payment Services” 2010 is silent on the issue of retained funds interest. The author believes that the Measures keep silent on this issue primarily due to practicality reasons. On the one hand, because Internet third party payment is designed for micro-payment, many retained funds are small value which can be as small as RMB 5 Yuan (roughly equivalent to GBP 0.5 Pound), in which case the interest can be ignored. On the other hand, if the interest liability is to be imposed, how to calculate the interest, what the interest rates should be, and who will supervise the enforcement are all difficult and non-cost-effective issues. Therefore, the 2010 Measures is silent.

⁸⁰ Art. 378, the “Contract Law of People’s Republic of China”. It’s original Chinese text is “第三百七十八条 保管人保管货币的，可以返还相同种类、数量的货币。保管其他可替代物的，可以按照约定返还相同种类、品质、数量的物品。” The full text in English can be read @ http://www.novexc.com/contract_law_99.html (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

(5) The fifth relevant point: the control of the use of retained funds

The fifth relevant point is how to control the use of the retained funds which is in the accounts of Internet third party providers.

There are at least three reasons that why retained funds should be controlled, which are 1) consumer protection; 2) liquidity risk avoidance and settlement risk avoidance; 3) preventing money laundering.

The author suggests that the first two reasons justify imposing restrictions to the use of retained funds. (These two reasons can be linked to the regulatory theories that “consumers protection and ensuring systemic stability are important arguments for the regulation of banking and financial sectors and electronic payment services.”⁸¹) Article 24 of the “Measures of Management on Non-Financial Institutions Payment Services” 2010 states:

“Payment institutions must only transfer retained funds in accordance with customers’ payment instructions. Payment institutions are prohibited to divert the retained funds for any other purpose.”

Anti-money laundering, the third reason of controlling retained funds, justifies monitoring and reporting suspicious retained funds transactions. (This argument can also be linked to the “social solidarity and social justice” regulatory theory.⁸²) Actually, before the issuance of the “Measures of Management on Non-Financial Institutions Payment Services” 2010, Internet third party payment providers, as a type of payment and clearance organisations, have been imposed anti-money laundering duty by the “Law of People’s Republic of China on Anti-Money Laundering”⁸³ and the “Measure of Management on Financial Institutions Reporting

⁸¹ See relevant theoretical discussions in part 2.2.2 in chapter 3 of the thesis.

⁸² See relevant theoretical discussions in part 1.2.12 in chapter 3 of the thesis.

⁸³ The Law of the People’s Republic of China on Anti-Money Laundering is adopted at the 24th session of the Standing Committee of the 10th National People’s Congress of the People’s Republic of China and entered into

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

Large Value and Suspicious Transactions,”⁸⁴ and relevant legislations. Article 29 of the “Measures of Management on Non-Financial Institutions Payment Services” 2010 states:

“Retained funds custody banks must supervise the use situation of the retained funds, and report the use situation of the retained funds to the local People’s Bank of China branch and legal institutions of the banks...”

The author agrees the stipulation of the use of retained funds by the Measures. As long as it can be enforced properly, customers will be protected and liquidity risk as well as settlement risk will be controlled within the minimal level.

(6) The sixth relevant point: insolvency

The sixth relevant point is what if Internet third party payment providers go insolvent. (The insolvency point can also be linked to the regulatory theories that “consumers protection and ensuring systemic stability are important arguments for the regulation of banking and financial sectors and electronic payment services.”⁸⁵)

The “Measures of Management on Non-Financial Institutions Payment Services” 2010 have not specified how to deal with insolvency in detail. Only article 39 of the “Measures” substantially touched the insolvency of non-financial payment institutions, which stated that:

effect as of January 1, 2007. See the full text in English @ http://www.fdi.gov.cn/pub/FDI_EN/Laws/GeneralLawsandRegulations/BasicLaws/P020070112534061253671.pdf (8 January 2014).

⁸⁴ See full text of the “Measures” in Chinese @ http://www1.www.gov.cn/ziliao/flfg/2006-11/15/content_442981.htm (8 January 2014).

⁸⁵ See relevant theoretical discussions in part 2.2.2 in chapter 3 of the thesis.

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

“Payment and clearance organisations which go insolvent due to dismissal,⁸⁶ its licence being withdrawn, or being declared to be bankrupted, should be dealt with by relevant legislations and regulations.”

The “relevant legislations and regulations” in this article, presumably, means the “Law of People’s Republic of China on Enterprise Bankruptcy”⁸⁷ and its affiliated rules. Thus, the “Measures” does not treat payment and clearance organisations separately, but just consider them as ordinary enterprises when insolvency occurs. It is worth mentioning that some countries have special provisions for the insolvency of financial institutions, – e.g. in the UK, priority is given to payment and trading system rules in an insolvency, thus preventing liquidators from re-opening trades which insolvency law might otherwise permit; and there are specific rules to allow settlement and clearing systems rules to prevail over insolvency law, and liquidators cannot upset payment and settlement.

The author suggests that, there must be a set of comprehensive rules to deal with the insolvency of payment and clearance organisations, since their influence are much wider than ordinary enterprises. Regarding the retained funds in insolvency, the law could require Internet third party payment providers to refund the retained funds to their owners (originators or beneficiaries). And the retained funds must not be liquidated by liquidators, because the ownership of the retained funds does not belong to the Internet third party payment providers (the debtors).

4. Conclusion

⁸⁶ Under Chinese law, dismissal occurs when the state or an official administrative body (in current case, the administrative body is the People’s Bank of China) stops the activities of a company or arranges their transfer to another company or organisation, at which point the company ceases to exist as a legal entity. See reasons and the procedural of dismissal of payment and clearance organisations in Art. 46, 47& 48, first consultation version of the “Measures of Management on Payment and Clearance Organisations”.

⁸⁷ The new “Law of People’s Republic of China on Enterprise Bankruptcy” was adopted at the 23rd Meeting of the Standing Committee of the Tenth National People’s Congress and promulgated by the President of the People’s Republic of China on August 27, 2006, and came into force on June 1, 2007. See the full text in Chinese @ http://www.gov.cn/flfg/2006-08/28/content_371296.htm (8 January 2014) and full text in English @ http://www.novexc.com/enterprise_bankruptcy.html (8 January 2014).

Chapter 4 The Regulation of Internet Third Party Payment Providers in China – Licensing and Retained Funds Regulation

The author has examined the Internet third party payment providers in China in this chapter. Also, the “Measure of Management on Non-Financial Institutions Payment Services” has been critically analysed. Licensing Internet third party payment providers and funds retained by Internet third party payment providers on their virtual accounts model are two crucial issues for both the regulator – the People’s Bank of China and ordinary payment services users. The author concludes his argument that: although licensing the Internet third party payment industry is necessary, the current licensing scheme is too restrictive, because its minimum registration capital requirements are too restrictive. Some legal issues pertaining to retained funds have been correctly addressed by the “Measure of Management on Non-Financial Institutions Payment Services” 2010, such as the ownership of the retained funds and the control of the use of the retained funds; while some legal issues pertaining to retained funds need to be re-considered by the People’s Bank of China, such as the insolvency issue.

Besides that, some other interesting legal issues, which have not yet been discussed in this chapter, will be referred to in the chapter 6 & 7 of the thesis. Those unaddressed issues include the comparison of regulatory approaches of Internet third party payment providers between China and the EU and UK, and lessons that China may learn from western regulatory theories in relation to regulating Internet third party payment and so on so forth.

Chapter 5 Virtual Currency and Its Regulation in China

Virtual worlds (as well as virtual currency) are at a very early phase. In many ways, we are at a stage similar to where the World Wide Web was in 1993, when the first commercial and government Web sites were being created, security was poor, and very few legal and regulatory issues had been adequately addressed.¹

Accordingly, legal research on virtual worlds and virtual currency are essential at their early stage of development.

1. Definition and analytical introduction of virtual currency

1.1 Definition

There is no official definition of “virtual world” for legal purposes. Wikipedia provides a relatively comprehensive definition: a virtual world is a genre of online community that often takes the form of a computer-based simulated environment, through which users can interact with one another and use and create objects.² It is even possible to see the whole Internet as being a virtual world.

From the perspective of currency development history, forms of currencies are constantly evolving along with the development of era. The process of one type of symbolic currency

¹ Nelson, Michael R, and Francis, Chris, “The 3D Internet and Its Policy Implications”, Telecommunications Policy Research Conference. Online: Telecommunications Policy Research Conference, 2007. @ <http://explore.georgetown.edu/publications/29942/> (8 January 2014). The original paper has been removed from the website, however, the author is lucky enough to cite this paragraph in this footnote before the paper was removed.

² http://en.wikipedia.org/wiki/Virtual_world (8 January 2014).

taking the place of another type of symbolic currency is endless. Precious metal currency is the product of agricultural society. Paper currency becomes popular with the spread of the industry revolution.³ Electronic currency is generated from computer technology. Nowadays, we have entered into the Internet age which provides appropriate soils for the emergence of virtual currency.⁴

A definition of virtual currency is provided by the latest and most comprehensive virtual currency regulatory rules in China: the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”.⁵ The Internet Games Virtual Currency described in this Notice is “a kind of virtual exchange instrument which is issued by Internet games operation enterprises, purchased by games users *pro rata* directly or indirectly with legitimate currency, existing outside games programs, stored in the form of electromagnetic recordings within servers provided by Internet games operation enterprises and represented in specific digital units. Internet games virtual currency is used to exchange Internet games services provided by issuance enterprises within specified range and specified time. Forms of virtual currency include pre-paid card, pre-paid amounts of money or points and so on so forth in the Internet games, but do not include games equipments from the Internet games activities.”⁶

As it has been defined in chapter 1 of the thesis, with a global perspective, the author defines virtual currency as “a kind of newly emerging electronic payment instrument issued by Internet companies to be used by their users in relevant Internet companies’ platforms or online games (especially massively multiplayer online role-playing games) to perform most economic functions as states-issued currency serves in the real world.”

Comparing the author’s definition of virtual currency with the definition from the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”, it is understandable that

³ For an interesting book which combines money, finance and history perfectly, see Ferguson, Niall. *The Ascent of Money: A Financial History of the World* (London: Allen Lane, 2008).

⁴ Su, Ning (苏宁), “Theoretical analysis on virtual currency”, (Beijing: Social Science Academic Press, 2008), Forward.

⁵ See detailed discussion of the Notice at part 3 of this chapter below.

⁶ Article 1 of the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”.

the Notice only covers virtual currency within the Internet games for the sake of convenient regulation and administration in China (see detailed discussion in part 4.5 of this Chapter).

The author adopts a wider approach, because virtual currency exists not only within Internet games, but also within Internet platforms which are outside the Internet games. For instance, Baidu coin⁷ is the virtual currency issued by the world largest and leading Chinese search engine Baidu. Baidu coins can be used in Baidu Internet games; more importantly, Baidu coins are used to buy other Internet products (such as antivirus services) in Baidu platforms.⁸ In the thesis, the author will discuss legal issues of virtual currency in general rather than constrain it within the Internet games environment.

1.2 Is virtual currency “money” in economics?

Economists define money by the functions it serves, and money is anything that is generally accepted as a unit of account, a medium of exchange, and a store of value. Money is, in other words, what it does.⁹

Firstly, in the real economy, money serves as a means of measuring the relative values of different goods and services. This is its unit of account function. If a laptop computer costs £ 1,000 and a desktop computer costs £ 500, then a laptop is worth twice as much as a desktop. People wishing to trade laptops for desktops will trade at the rate of one laptop for two desktops. Money provides a simple and convenient measure of relative market values.¹⁰ In the virtual world, virtual currency also serves as a means of measuring the relative values of different virtual goods and virtual services. For instance, if a virtual scarf in Second Life costs 20 Linden Dollars¹¹ and a virtual hat costs 10 Linden Dollars, then avatars (controlled

⁷ <http://coin.baidu.com/index.jsp> (8 January 2014).

⁸ <http://www.baidu.com/more/> (8 January 2014).

⁹ Stiglitz, Joseph. E & Walsh, Carl. E, *Economics*, (4th ed., New York & London: W. W Norton & Company, 2006), p. 617.

¹⁰ Stiglitz, Joseph. E & Walsh, Carl. E, *Economics*, (4th ed., New York & London: W. W Norton & Company, 2006), p. 616.

¹¹ Linden Dollar is the virtual currency being used in the virtual world Second Life. See more information about the Linden Dollar and Second Life @ <http://secondlife.com/> (8 January 2014).

by human beings) wishing to trade virtual scarves for virtual hats will trade at the rate of one virtual scarf for two virtual hats. Thus, virtual currency also provides a simple and convenient measure of relative market values in the virtual world.

Secondly, in the real economy, money's primary function is to facilitate trade—the exchange of goods and services. This is called its medium of exchange function. Essentially, money can be thought of as a social convention. People accept money in payment for what they sell because they know that others will accept it for what they themselves want to buy. Any easily transportable and storable good can, in principle, be used as a medium of exchange.¹²

In the virtual world, virtual currency also acts as a medium of exchange to facilitate trades of virtual goods and virtual services. Avatars (controlled by human beings) accept virtual currency in payment for what they sell because they know other avatars will accept it for what they themselves want to buy.

Thirdly, in real economy, people will exchange what they have for money only if they believe that they can later exchange money for things they need. For money to serve as a medium of exchange, it must hold its value. Economists call this third function of money the store of value function. Governments once feared that paper money by itself would not hold its value unless it was backed by a commodity such as gold. People had confidence in paper money because they knew they could exchange it at banks for a precious metal. Today, however, all major economies have fiat money----money that has value only because the government says it has value and because people are willing to accept it in exchange for goods. US Dollar bills carry the message “This note is legal tender for all debts, public and private”. The term “legal tender” means that if you owe \$ 100, you have fully discharged that debt if you pay with a hundred Dollar bill (or a hundred one-Dollar bills).¹³

¹² Stiglitz, Joseph. E, & Walsh, Carl. E, *Economics*, (4th ed., New York & London: W. W Norton & Company, 2006), p. 616.

¹³ Stiglitz, Joseph. E, & Walsh, Carl. E, *Economics*, (4th ed., New York & London: W. W Norton & Company, 2006), p. 617.

In the virtual worlds, still taking Second Life as an example, avatars (controlled by human beings) will exchange what virtual goods and services they have for Linden Dollars only if they believe that they can later exchange the Linden Dollars for virtual things they need. People have additional confidence in Linden Dollars because they know they could exchange it at Linden Lab platform for US Dollars or GB Pounds or other possible national legitimate currencies.¹⁴ The Linden Dollar is, actually, a sort of fiat money in the Second Life.

This demonstrates that, no matter how different and diversified virtual currency might appear to be compared to normal currency, as long as it serves the three functions above it should be regarded as money from the economics perspective. Since the virtual currency belongs to money in economics, the next question should be “is virtual currency money in law?”

1.3 Is virtual currency “money” in legal sense?

From the legal perspective, Dr. F. A Mann stated that, “In law, the quality of money is to be attributed to all chattels:

- (a) which are issued under the authority of the law in force within the State of issue;
- (b) which under the terms of that law, are denominated by reference to a unit of account;
- (c) which, under the terms of that law, are to serve as the universal means of exchange in the State of issue.”¹⁵

According to this definition, there can be no difference between money and the legal tender of any given country. Money is therefore easily to be distinguished from other forms of

¹⁴ See the Linden Lab exchange platform “LindenX Exchange” @ <http://community.secondlife.com/t5/English-Knowledge-Base/Buying-and-selling-Linden-dollars/ta-p/700107> (8 January 2014).

¹⁵ Mann, Frederick Alexander, *The Legal Aspect of Money* (6th ed., Oxford: Oxford University Press, 2005), p. 15.

payment, such as negotiable instruments and letters of credit, since it represents a direct exercise of the sovereign will of the State.¹⁶

Such a lawyer's definition of money is rather narrower than that of an economist¹⁷ as showed above. In light of the lawyer's definition, virtual currency is not money in law, because to date, none of the existing types of virtual currency has been attributed by law of any country or has represented a direct exercise of the sovereign will of any State. Instead, virtual currencies are all attributed to private Internet companies so far.

Although we have denied the virtual currency is money from the legal perspective, it will not influence the legal research necessity of virtual currency as a new method of electronic payment. Conversely, in the Internet environment, virtual currency is becoming an increasingly crucial payment channel for netizens, especially for young people.

Now we know that the economists embrace virtual currency as a new species of money, and lawyers refuse to do so. The next question is what the distinctions between virtual currency and states-issued currency are?

1.4 Distinctions between virtual currency and states-issued currency

Comparing with the states-issued currency, the virtual currency possesses its own characteristics, and there are at least three distinctions between them.

1.4.1 Issuers

¹⁶ Gleeson, Simon, *Personal Property Law* (London: Sweet and Maxwell, 1997), p. 142-143.

¹⁷ Brindle, Michael & Cox, Raymond (ed.) *Law of Bank Payments*, (3rd ed., London: Sweet & Maxwell, 2004) p. 29.

The states-issued currency are normally issued by central banks and supported by the reputation of the states. The virtual currency is issued by private Internet companies and supported by the reputation and assets of those private Internet companies.

1.4.2 Risks

Risks pertaining to virtual currency are much higher than risks pertaining to states-issued currency, because the reputation and the risk resistance capacity of an Internet company are much weaker than a state. Even for some mega-company like Tencent, its reputation and risk resistance capacity are not comparable with its home country- the People's Republic of China. To be specific, the risks pertaining to virtual currency, primarily, are the risk of failure of the company, and the risk of virtual currency inflation because its issuance is merely determined by private Internet companies and may go out of control due to various reasons, such as market competition and inappropriate development strategies of the Internet companies etc.

1.4.3 Regulation

In most countries, states-issued currency is under strict regulation of laws and measures. In China, the states-issued currency, Renminbi, is regulated, primarily, by the “Regulatory Provisions of the People's Republic of China on Renminbi” (中华人民共和国人民币管理条例),¹⁸ and other relevant laws. Regarding the virtual currency, there have been hot debates on whether the Chinese government should regulate it or not. If yes, how should we do it (the extensive research is in part 3 of this Chapter), some lower level legislations have been issued (see the existing virtual currency laws in China in part 4 of this Chapter).

In the UK, national laws, such as the Currency Act 1983 are governing coins and bank notes, but not virtual currency; and it is only recently that the implementation of the EU Electronic Money Directive 2000/46/EC into the UK has brought the virtual currency under the

¹⁸ This Provisions was enacted by the People's Republic of China and came into effect on May 1, 2000. See the full text in Chinese @ <http://www.pbc.gov.cn/rhwg/20000101f.htm> (8 January 2014).

regulatory framework of e-money by the Financial Services Authority (FSA) (see more detailed analysis in Chapter 6 of the thesis).

Apart from the three most important distinctions above, there are some more distinctions between virtual currency and state-issued currency. For example, the virtual currency is designed for remote (including cross-border) immediate value payment; whereas state-issued currency and payment systems which operate using state-issued currency do not. Also, in terms of exchange rates, virtual currency issuers cannot control the exchange rates between different types of virtual currencies; whereas state-issued currency issuers (especially in modern China) have strong tools¹⁹ which can at least influence the exchange rates between the state-issued currency and foreign currencies.

1.5 Why did virtual currency exist and develop in China?

The most important justification of the existence of virtual currency is to resolve the bottleneck problem of Internet small value payment and micro payment in China. Before the emergence of virtual currency, there are primarily three options for an Internet user who wishes to make a small value fund transfer to an Internet company while playing Internet games. The most common approach is to pay the game operator by cash. However, because the game operator cannot predict when and where players will pay by cash, thus, in theory, the game operators have to maintain 24*7 cash recipient services to nationwide gamers or even worldwide gamers, which is almost impractical and non-cost-effective.²⁰

Apart from payment by cash, the gamer can either go to a branch of China Post (just like a Royal Mail post office branch in the UK) to make post office funds transfer through the post office system, or use Internet banking payment. However, it is very inconvenient to

¹⁹ See “Renminbi exchange rates systems” in the Chinese official news agency Xinhuanet @ http://news.xinhuanet.com/ziliao/2009-06/08/content_11507633.htm (8 January 2014).

²⁰ This is an assumption by Professor Zhong Xiaosheng(钟孝生) in his article, but this assumption has never even existed due to the extremely high expenses of setting up 24*7 outlets. Zhong Xiaosheng, “The nature of Internet virtual currency and its impact to the circulation of currency”, Business Times (商业时代) (original name “Business Economy Research”)(原名商业经济研究), issue 10, 2007. From Wan Fang Data (万方数据)

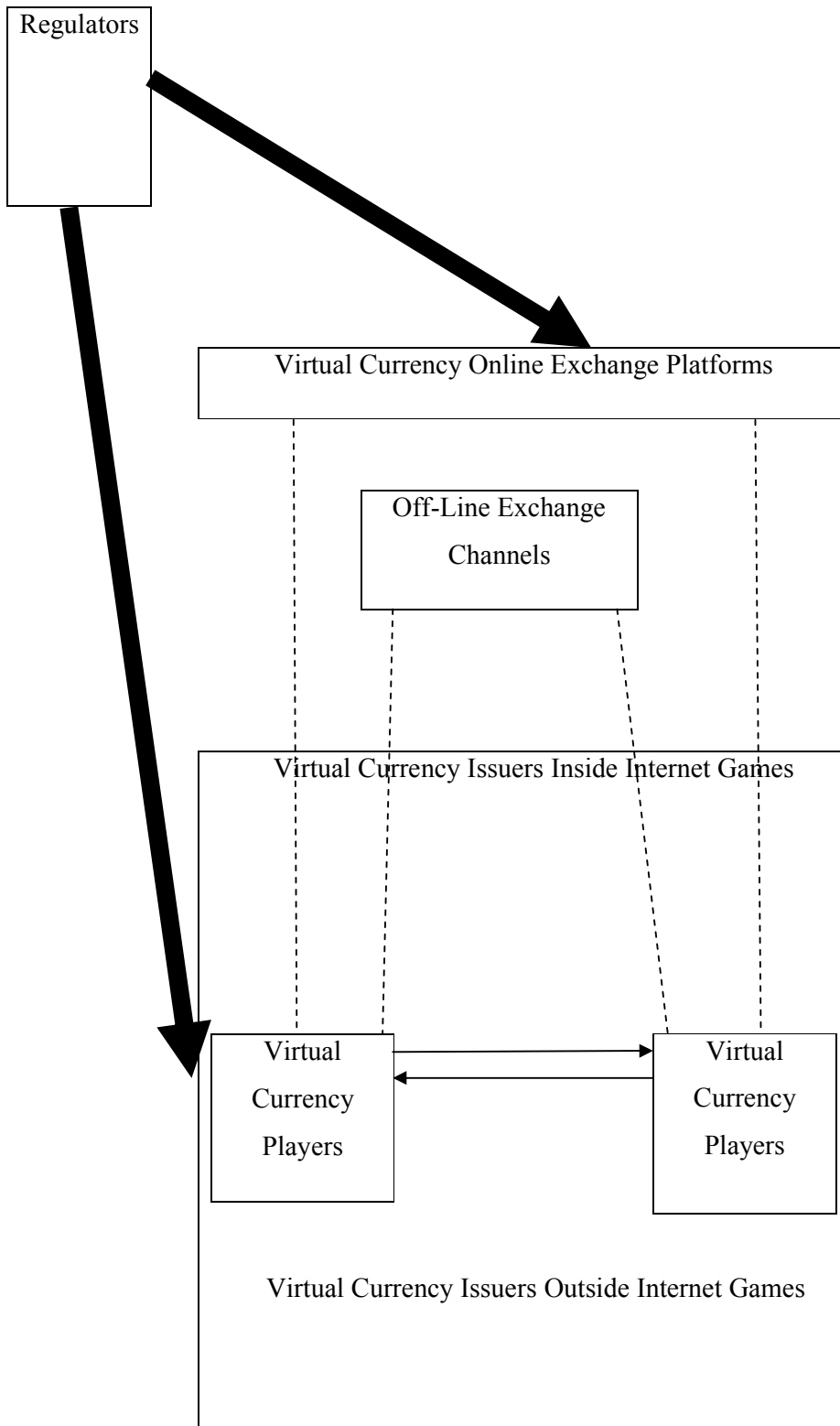
constantly take time out to top up games credit during exciting and “addictive” games. Meanwhile, payment and clearance by post office, in most cases, are not real-time. Using Internet banking transfer is quicker, but a considerable number of users still worry about the security of Internet banking services.²¹ More importantly, both post office payment and Internet banking payment have set minimum charges for small value funds transfers. The “Tariff of Payment and Settlement Services” shows most (not all) tariff information of payment and settlement services in China.²² It is, obviously, not worthwhile to pay extra fee when only very low amount of funds (like RMB 5 Yuan, which is roughly equivalent to GBP 0.5 pence) need to be transferred. With the emergence of virtual currency, Internet users and gamers could purchase the virtual currency through various channels with any amount of value, and make the payment instantly to the Internet game operators or other games without commission charges.²³

²¹ An online survey showed that 89.7% people are worried about the security of Internet banking. See more information of the report @ http://news.xinhuanet.com/fortune/2007-04/09/content_5950125.htm (8 January 2014).

²² See the full “Tariff of Payment and Settlement Services” in the People’s Bank of China official website @ <http://www.pbc.gov.cn/rhwg/971601f8.htm> (8 January 2014).

²³ Wu Huaiqin(吴怀琴), “Electronic commerce analysis of Internet virtual currency”, Business Times (商业时代) (original name “Business Economy Research”)(原名商业经济研究), issue 10, 2007. From Wan Fang Data (万方数据)

2. Life cycle and industry chain of virtual currency in China



The chart above demonstrates the life cycle and industry chain of the virtual currency in China. Two thick arrows represent regulatory relationships between regulators and virtual currency issuers/online exchange platforms. Two thin arrows represent virtual currency trading relationships and virtual currency movement between virtual currency players. Four broken lines represent communications of information.

The text below explains different components of the chart and how the chart works.

2.1 Components of the chart

2.1.1 Regulators

Initially, the regulation of virtual currency was incorporated in the regulation of Internet games and cyber cafes which is a highly inter-departmental issue. Thus, according to “Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games”, “Notice on Further Enhancing the Regulatory Work of Cyber Cafés and Internet Games”, and an official Reply by the China State Administration of Taxation on virtual currency, regulators of virtual currency encompassed these departments and ministries listed in the footnote.²⁴ It was not clear specifically, which departments or ministries were in charge of the virtual currency regulation. In June 2009, the Ministry of Culture and the Ministry of Commerce jointly issued “Notice of Enhancing Regulatory Work on Internet Games Virtual Currency”, thereafter, it is clear that the Ministry of Culture and Ministry of Commerce are responsible for the regulation of virtual currency.

2.1.2 Virtual currency issuers inside/outside Internet games

²⁴ People’s Bank of China, Ministry of Culture, the Ministry of Commerce, the Ministry of Public Security, Ministry of Information Industry (which has been reorganised and converted to the Ministry of Industry and Information Technology in 2008), the General Administration of Press and Publication, the State Administration for Industry & Commerce, the Ministry of Education, the Ministry of Finance, the Ministry of Supervision, the Ministry of Health, the Legislative Affairs Office of the State council, the General Administration of Press and Publication, the Central Spiritual Civilization Office, the Central Society Comprehensive Control Office, and the Central Chinese Communist Youth League and the China State Administration of Taxation.

Virtual currency can be issued by virtual currency issuers and used within Internet games. For example, World of Warcraft Gold is issued by Blizzard Entertainment²⁵ and used in the Internet game World of Warcraft. Apart from inside Internet games, virtual currency also exists outside the Internet games. For instance, the Q coin, which is issued by Tencent Ltd, is widely used in Tencent's Internet platforms which are outside Internet games, such as QQ show in QQ online shopping centre.²⁶

2.1.3 Virtual currency players

In this chart, the “virtual currency players” is located within the frame of “virtual currency issuers inside/outside Internet games”, because most²⁷ virtual currency systems are account-based systems rather than cash-based system.²⁸ Virtual currency players undertake all the virtual currency activities, such as purchasing, spending and transactions, through the virtual currency issuers' websites. Virtual currency players' activities are fully monitored by the virtual currency issuers.

Virtual currency players encompass three different types of participants in the virtual currency industry chain, which are ordinary virtual currency users, gold farmers (gold means virtual currency); and virtual currency speculators.

2.1.3.1 Ordinary virtual currency players

First of all, ordinary virtual currency users fall into the category of the virtual currency players. Taking the Q coins as an example, if an Internet user register a QQ account, purchase

²⁵ See Blizzard Entertainment official website @ <http://us.blizzard.com/en-gb/> (8 January 2014). The World of Warcraft Chinese website is @ <http://www.battlenet.com.cn/features/zh/landing/wow> (8 January 2014).

²⁶ QQ show provides various type of virtual services, such as decorating Tencent's instant messenger—QQ and purchasing virtual clothes, hairdressing services, software and membership services. See more details @ <http://show.qq.com/> (8 January 2014).

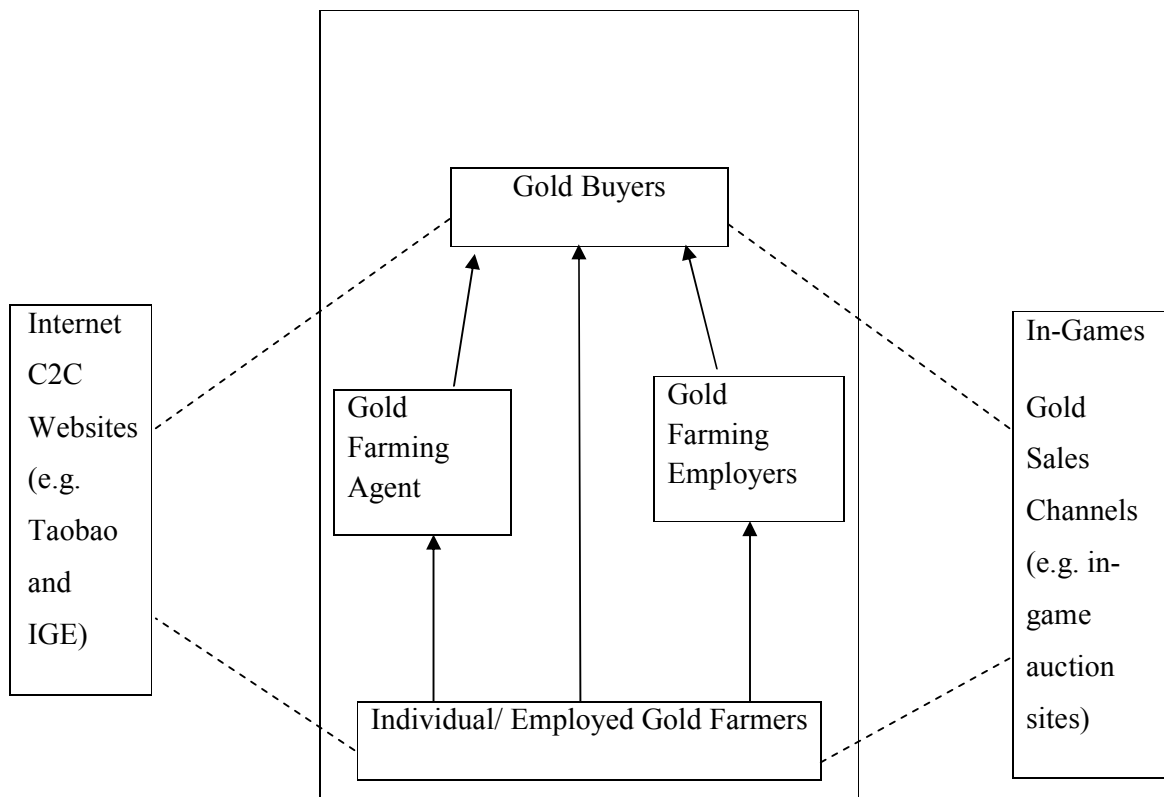
²⁷ To be cautious, the author uses “most” instead of “all”, because although currently, all virtual currency systems are account-based systems, it cannot exclude the possibility that some cash-based system might emerge in the future.

²⁸ See Chapter 1 of the thesis for details on account-based system and cash-based system.

some Q coins, and spend those Q coins in Tencent's platforms or Internet games, then this user is regarded as an ordinary virtual currency player.

2.1.3.2 Gold (virtual currency) farmers

Secondly, gold farmers are another type of important virtual currency players. The chart below illustrates the gold farming value chain within the virtual currency industry chain.²⁹



Arrows represent the movement of gold.

²⁹ This chart and relevant explanations is inspired by the article “Gold farmers: the gold digger in the world of Internet games” by Cheng, Peng (程鹏) @ <http://it.sohu.com/20070123/n247779795.shtml> (8 January 2014).

Broken lines represent the communication of information.

Individual professional gold farmers are usually highly skilled game players who can earn gold (virtual currency) quicker than ordinary game players. They make a living by selling the gold to make real currency profits. Employed gold farmers are employed by gold farming employers to earn virtual currency by playing Internet games, and the employers sell the virtual currency to make real currency profits.³⁰ Gold buyers are usually those Internet games players who have no time/ efficient skills to earn gold, or who are reluctant to waste time to do repetitively work to earn gold. So they choose to buy gold directly from others.³¹

Taking World of Warcraft coins as an example to illustrate how the gold-farming value chain works.

For individual professional gold farmers:

- Step 1: individual professional gold farmers earn gold from the games by repetitively clicking mice, upgrading their virtual social status in virtual worlds, killing virtual enemies and virtual monsters, and so on so forth.
- Step 2: after earning gold, the individual professional gold farmers could sell the gold directly to gold buyers through Internet C2C websites such as Taobao.com and IGE.com; or through in-game auction sites. Alternatively, the individual professional gold farmers could sell the gold to gold farming agents to realise real currency profits.
- Step 3: The gold farming agents re-sell the gold to end buyers both inside and outside China (some gold buyers are from developed countries).

³⁰ See an example of how the gold farming works, “How to farm 100+ gold per hour in World of Warcraft” @ <http://www.youtube.com/watch?v=pcl7REPFimg> (8 January 2014), and see an overview of the gold farming @ http://en.wikipedia.org/wiki/Gold_farming (8 January 2014).

³¹ It should be pointed out that gold farmers not only sell gold, the virtual currency, they also sell virtual items and virtual equipments.

For employed gold farmers:

- Step 1: employed gold farmers earn gold from the games by repetitively clicking mice, upgrading their virtual social status in virtual worlds, killing virtual enemies and virtual monsters, and so on so forth.
- Step 2: employed gold farmers submit the gold to their employers, and the employers pay real currency in return.
- Step 3: employers sell the gold to buyers and realise the real currency profits. Gold buyers are located both inside and outside China, since the Internet is a global market without borders.

It is worthwhile to mention that the gold farmers can earn gold by making use of some tools prohibited by official Internet games operations, such as through plug-in (外挂)³² and private server (私服).³³

2.1.3.3 Virtual currency speculators

Thirdly, virtual currency speculators are also very important parts of “virtual currency players”. The distinction between virtual currency speculators and ordinary virtual currency players is that the speculators “buy low and sell high” virtual currency to make real Renminbi profits; ordinary virtual currency only buy virtual currency and make use of its function set up by the virtual currency issuers and Internet games. The distinction between virtual currency speculators and individual professional gold farmers is that, speculators usually do not earn gold by themselves, but only engage virtual currency trading business. The

³² A plug-in is a computer technology which can be used as a cheating tool in Internet games. By making use of Plug-In, a game player may upgrade his/her status more efficiently and making gold quicker than others. In order to maintain a fairer gaming environment, official game operators reject the existence of the plug-in. However, plug-ins still cannot be banned completely. See more details @ <http://game.people.com.cn/GB/48647/161032/162564/9660352.html> (8 January 2014).

³³ Private Servers are servers which provide unauthorised Internet game services by unofficial games operators. It is also regarded as a cheating tool which ruins the fair play Internet game environment. See more details @ <http://baike.baidu.com/view/52175.htm> (8 January 2014).

distinction between virtual currency speculators and employed gold farmers is also that speculators do not earn gold by themselves; and there is no employment relationship between the speculators and their customers, but there are employment relationships between employed gold farmers and their employers.

Those virtual currency speculators could do the “buy low and sell high” business both online and offline. In the online scenario, individual speculators usually make use of C2C website, such as Taobao.com,³⁴ to post business information and accomplish payment transactions through Internet third party payment providers. In the offline scenario, individual speculators usually meet with their customers face to face to pay and receive cash. In both online and offline scenarios, virtual currency is transferred through the virtual currency issuer’s system.

Q coins cannot be redeemed back to Renminbi in Tencent’s official platform.³⁵ It is through the existence of countless speculators that the business of redeeming Q coins back to Renminbi becomes possible.

Taking an example of Q coins to illustrate the virtual currency speculators’ behaviours and how they make real Renminbi profits:³⁶

- Step 1: The official price of 1 Q coin is RMB 1 Yuan.³⁷ A speculator X buys 1000 Q coins with RMB 1000 Yuan from Tencent.
- Step 2: The speculator X sells the 1000 Q coins with the price of RMB 900 Yuan to Y. Because the ratio is cheaper than Tencent’s official price, it is easy to find a buyer or even choose a buyer from a number of competitors/candidates.
- Step 3: The buyer Y will make use of the 1000 Q coins to play Tencent’s Internet games to win more Q coins. There are many ways to win extra Q coins. For instance,

³⁴ http://www.taobao.com/index_global.php (8 January 2014).

³⁵ See Tencent’s official website for details of how to use Q coins @ <http://pay.qq.com/> (8 January 2014).

³⁶ The inspiration of this example came from the article “Virtual Currency” from the Chinese official news agency Xinhuanet @ http://news.xinhuanet.com/internet/2009-08/12/content_11868621.htm (8 January 2014).

³⁷ According to different payment method, the ratio varies. See details @ <http://pay.qq.com/> (8 January 2014).

repetitively click Tencent's online advertisements, filling online surveys, gaining Q coins from Tencent's Chinese New Year bonus packages, killing virtual enemies within Internet games, upgrading and selling virtual equipments in Internet games, winning online lottery games within Tencent's Internet games,³⁸ and so on and so forth. Assuming that Y wins another 1000 Q coins through his hard work and good luck, so he possesses 2000 Q coins now.

- Step 4: The speculator X will buy Y's Q 2000 coins back with the price of RMB 800 Yuan/1000 Q coins. Y will be happy to sell his 2000 Q coins with the price of RMB 1600 Yuan, because he makes RMB 700 Yuan profits ($1600-900=700$).
- Step 5: Again, the speculator X will sell the 2000 Q coins to Z with the price of 900 Yuan/1000 Q coins, and he makes RMB 100 Yuan profits ($-1000+900-1600+1800=100$).

In sum, the speculator X makes real Renminbi profits through buy low (RMB 800 Yuan/1000 Q coins) and sell high (RMB 900 Yuan/1000 Q coins). Y makes real Renminbi profits through winning extra Q coins. As long as Y could earn extra Q coins, both X and Y could gain real Renminbi profits.

(It should be noted that the above five-step process is merely one way of speculating the virtual currency. Additionally, virtual currency speculators can also trade virtual equipments with virtual currency to earn real Renminbi profits).

However, the above five-step process of making real Renminbi profits through virtual currency speculation is risky for both X and Y. Because:

³⁸ Art. 20 of the "Notice of Enhancing Regulatory Works on Internet Games Virtual Currency" stipulates that "On the basis that users directly invest cash or virtual currency, Internet games operation enterprises must not distribute games equipments or virtual currency by sortition, staking, random drawing or any other way by chance". Therefore, in theory, the way of gaining Q coins and any other virtual currency by winning online lottery games is prohibited. However, the enforceability of this article is not that successful and in practice, some Internet games still provide lottery or similar services in Internet games. See the Ministry of Culture answering journalists' questions @ <http://news.17173.com/content/2009-10-11/20091011174714943.shtml> (8 January 2014).

- Y cannot guarantee that he will always win extra Q coins and never lose Q coins.
- X cannot guarantee that he will always find the right buyer Z to realise his Renminbi profits.

Having analysed the life cycle and industry chain of virtual currency in China, it is time to analyse the regulation of virtual currency in China. The author will, first of all, analyse whether it is necessary to regulate virtual currency, then critically analyse the current legal regulation of virtual currency in China.

3. Arguments and justifications on regulating virtual currency in China

3.1 Economic arguments for regulating virtual currency

3.1.1 Virtual currency will not cause inflation in the real economy and will not affect Renminbi market

In China, the relationship between virtual currency and inflation in the real economy was firstly raised by Professor Yang Tao (杨涛) in 2006, who was then a scholar from “Jiangxi Science & Technology Normal University Law School”.³⁹ He argued that:

“According to the ‘Measures of Management on Renminbi’, Renminbi is the legal currency of China, all the public or private obligations have to be discharged by Renminbi. The People’s Bank of China is the only legitimate issuance organisation of Renminbi, no other organisations or institutions are permitted to issue currencies. However, Q coins and other virtual currencies are issued by merchants which can be exchanged with Renminbi. The quantity of Reminbi in the real economy is limited, but merchants can issue unlimited Q coins and other virtual currencies. Although the issuance quantity of the virtual currency may be affected by the ‘exchange rates’,

³⁹ <http://vir.jxstnu.edu.cn/fxy/index.asp> (8 January 2014).

China's financial order will be stricken once the virtual currency replaces Renminbi to become the universal equivalent in the Internet, and inflation might occur as well."⁴⁰

However, the author does not agree with the above argument. Instead, the author believes that what Mr. Yu Guofu (于国富), a leading IT lawyer in China, argues is correct. Mr. Yu Guofu suggests that:⁴¹

- “First of all, virtual currency is merely an internal consumption certificate within Internet service providers which is similar to the issuance of dinner tickets or vouchers by university refectories. The dinner tickets or vouchers will not be useful outside the refectories, and will not strike current economic stability, nor will the virtual currency.
- Secondly, it is impossible to unlimited issue virtual currency by the Internet service providers, because the quantity of the virtual currency is determined by consumers' purchasing behaviours. The increase of virtual currency is merely the increase of commodities, rather than the increase of money supply. Because the quantity of Renminbi is relatively stable in the whole economy, if someone converts a large amount of virtual currency to Renminbi, it will only reduce the quantity of Renminbi, rather than increasing it.
- Thirdly, currently, no Internet service provider dares to provide the service which convert virtual currency back to Renminbi. Therefore, the exchange of Renminbi to virtual currency is a one way process (apart from very few ‘black markets’ that provide double way conversion). On this regards, the virtual currency has formed a self-circulation system which provides no withdrawal path. As long as the withdrawal path is closed, the virtual currency will not cause any noticeable impact on the Renminbi market. Additionally, in order to exemplify issuance income and prevent

⁴⁰ “Research Report on Internet ‘Currency Form’ Payment with Electronic Carriers” written by Professor Zhang, KuangHai (张宽海) and “Southwestern University of Finance and Economics, Payment and Settlement Research Centre”, p. 16.

⁴¹ “Research Report on Internet ‘Currency Form’ Payment with Electronic Carriers” written by Professor Zhang, KuangHai (张宽海) and “Southwestern University of Finance and Economics, Payment and Settlement Research Centre”, p. 16 -17.

‘bank run’ risk, Internet service providers will not open up the service of converting virtual currency back to Renminbi, thus, it is almost impossible for the circulation of virtual currency strikes Renminbi.”

The author agrees with most of the above arguments by Mr. Yu Guofu (于国富), except his second argument. The author suggests that, if someone converts a large amount of virtual currency to Renminbi, it will neither increase nor reduce the quantity of Renminbi in the whole economy, because the conversion between virtual currency and Renminbi, essentially, is merely the exchange of ownership of the virtual currency and Renminbi among different people, the total quantity of Renminbi in the economy remains the same.⁴² Therefore, the virtual currency will not cause inflation in the real economy and will not affect Renminbi market.

Although the author has concluded that virtual currency will not cause inflation in the real economy and will not affect Renminbi market, academic discussions are always helpful, and this discussion can be linked to the argument that ensuring systemic stability is an important rationale for the regulation of banking and financial sectors and electronic payment services.⁴³

3.1.2 Virtual currency still needs to be regulated

Although virtual currency will not cause inflation in the real economy and will not affect Renminbi market, it still must be regulated for at least two reasons:

The first reason is consumer protection. For virtual currency consumers, virtual currency represents their wealth in the virtual worlds. Their wealth might be infringed by several kinds

⁴² The author would like to acknowledge that, in some situations, the velocity of money circulation may influence money supply in the real economy to some extent. However, since it is research topic for macroeconomics in which case detailed formula calculations should be involved. It is outside the theme of this law thesis. Therefore, the author will not elaborate it further.

⁴³ See relevant theoretical discussions in part 2.2.2 in chapter 3 of the thesis.

of misbehaviours and suffering from severe risks. For example, Internet service providers may go insolvent and close up their business overnight, and cause consumers to lose all their virtual currency immediately. Internet service providers may sign unfair contracts with consumers if the legal status of virtual currency is not recognised by the law.⁴⁴ Also, consumers can be vulnerable when technological failure occurs in the cyberspace, etc.

The second reason is that virtual currency may facilitate illegal activities such as online gambling, and money laundering. That is why the Chinese government's first official regulatory rules referring to virtual currency were incorporated within the regulation of Internet gambling. See part 4.1 of this Chapter on details discussion of the "Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games". Regarding money laundering, in few "black market" and some C2C website (such as Taobao.com⁴⁵), it is possible to convert virtual currency back to Renminbi, thus, money laundering may be carried out through Internet games and virtual currency-Renminbi conversion. Due to the profitability of the virtual currency, some players have found quicker and easier methods to earn virtual currency through plug-in and private servers. Plug-in and private servers provide unfair gaming environment for those who use plug-in and private servers and those who do not use them.⁴⁶

In sum, all the above economic reasons justify that virtual currency need to be regulated. The consumers protection argument can be linked to the regulatory theories that "consumers protection is an important argument for the regulation of banking and financial sectors and electronic payment services."⁴⁷ And the "preventing illegal activities" argument can be linked to the "social solidarity and social justice" regulatory theory, because the regulation of money

⁴⁴ "Research Report on Internet 'Currency Form' Payment with Electronic Carriers" written by Professor Zhang (张宽海), KuangHai and "Southwestern University of Finance and Economics, Payment and Settlement Research Centre", p. 17-18.

⁴⁵ http://www.taobao.com/index_global.php (8 January 2014).

⁴⁶ See footnotes in part 2.1.3.2 of this chapter for the explanation of "plug-in" and "private server".

⁴⁷ See relevant theoretical discussions in part 2.2.2 in chapter 3 of the thesis.

laundering and online gambling can be considered as regulations which could further social solidarity.⁴⁸

3.2 Ethical and moral arguments for regulating virtual currency

Apart from the economic argument for the regulation of virtual currency, very few people have considered the ethical and moral aspects of regulating virtual currency. The author provides his ideas below.

The author provides the following ethical and moral arguments to show that he has considered the issue comprehensively, not only from the legal aspects, but also from social aspects. However, it should be noted that, this is still a law thesis, so the following ideas relating to ethics and morality are developed to support the legal points.

- The “2009 China Internet Games Market White Book” shows that over 17% of Internet games players are under 18 years old. The absolute number is over 11.783 million.⁴⁹ Although the exact data of how many teenagers are using virtual currency is unknown, it is clear that a large number of young people are playing Internet games with virtual currency. Many young people became mentally addicted to Internet games and virtual currency which can cause severe social problems, such as violence, theft, and anti-social behaviours.
- Because virtual currency represents the wealth of netizens, and can bring real Renminbi profits, it could stimulate and amplify the greedy personality of young people who may not understand the meaning of money and wealth very well, and may not have a correct attitude towards money and wealth. When a generation becomes greedy and over-selfish, the law will not be able to do anything to contain

⁴⁸ See relevant theoretical discussions in part 1.2.12 in chapter 3 of the thesis.

⁴⁹ Abstract of “2009 China Internet Games Market White Book” @ http://www.ccnt.gov.cn/sjzz/whscs/zhxw/201001/t20100119_76449.html (8 January 2014).

the potential negative consequences of the greed.⁵⁰ One of the Chinese cultural tradition “Di Zi Gui: guide to a happy life” <弟子规> taught young people that the correct view of wealth should be “when I value my familial ties more than property and belongings, no resentment will come between me and my siblings [and other people]” (财物轻，怨何生).⁵¹

Arguably, we may draw the example from the latest global financial crisis stemming from the USA. As His Excellency, Chinese Premier Wen Jiabao (温家宝) pointed out in his important speech in Cambridge University in February 2009: the deep reason behind this global financial crisis is the lack of ethics and morality; some people have forgotten their morality when tempted by personal gains, infringed public interest and lost their moral baselines.⁵² It is also the author’s view that, fundamentally speaking, the financial crisis was triggered by the greed of bankers and the lack of ethics and morality of financial institutions. In a country whose banking and financial law is as sophisticated and detailed as the USA, financial crisis still cannot be prevented. The world should not over rely on the law, since no law is perfect. It is time to strengthen ethics and morality education to bankers and financial firms so as to control their greed, awaken their conscience, and to save the world economics and finance.

- Legal regulation of Internet games virtual currency is essential, but the government should also consider ethical and moral guidelines for Internet games. For example, the current Internet games model is “killing enemies”, “upgrading status” and “earning virtual currency”. The government could encourage games operators to develop some humanitarian Internet games to promote traditional Chinese culture and good ethics and moral standards, like benevolence (仁), loyalty (义), ceremony (礼),

⁵⁰ For a further reference on the attitude towards money and wealth, see Richards, Charles, *The Psychology of wealth: understanding your relationship with money and achieve prosperity* (McGraw-Hill Contemporary, 2012).

⁵¹ This sentence is from chapter 2 of the “Di Zi Gui”, “Standards for a younger brother when away from home”. See full text of the “Di Zi Gui: a guide to a happy life” <弟子规> @ <http://www.dfg.cn/gb/zhhy/whdc/01-dzg.htm> (8 January 2014).

⁵² Chinese Premier Wen Jiabao (温家宝)’s Cambridge Speech: “Rethinking Financial Crisis, Constructing Economic Ethics”, @ http://news.xinhuanet.com/politics/2009-02/05/content_10763340.htm (8 January 2014).

wisdom (智), honest (信), faithful (忠), filial piety (孝), incorrupt (廉), shame (耻) and brave (勇).⁵³

After arguing the necessity of regulating virtual currency, the next part of the Chapter will extensively and critically discuss the currently legal regulation of virtual currency in China.

4. Critically analysing current legal regulation of virtual currency in China

Before June 2009, the regulation of virtual currency in China was in a piecemeal and uncoordinated manner. In June 2009, the first comprehensive virtual currency regulatory rules in China, “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”, were jointly issued by the Ministry of Culture and Ministry of Commerce. In June 2010, the first comprehensive Internet games rules in China, “Provisional Measures of Management on Internet Games” were issued by the Ministry of Culture. The author will examine those regulatory rules below in chronological order and provide his critical analysis.

4.1 “Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games”

During February and April 2007, four Chinese governmental departments have developed a nationwide specialised work on regulating the business order of Internet games and prohibiting gambling on Internet games. The four departments are the Ministry of Public Security, the Ministry of Information Industry (which has been reorganised and converted to the Ministry of Industry and Information Technology in 2008), the Ministry of Culture, and the General Administration of Press and Publication. Meanwhile, the four departments have jointly released a Notice,⁵⁴ named “Notice on Regulating Business Order of Internet Games

⁵³ Those are all traditional Chinese culture and essential parts of Confucianism.

⁵⁴ It is a Chinese characteristic that many government and regulatory documents are released jointly by a number of different departments and bureaus when the regulatory contents are multi-sector.

and Prohibiting Engaging Gambling through Internet Games” (关于规范网络游戏经营秩序查禁利用网络游戏赌博的通知).⁵⁵

Section 3 of this Notice has addressed the regulation of virtual currency in the context of prohibiting gambling through Internet games:

“(Relevant bureaus) must supervise Internet games operators to engage their business legally, and by any means or through virtual currency in disguised form, the games operators must not charge any commission fees which are related to win or lose of the games. The operators must set up win and lose amount limits of each round and each day for gamers, if the game is in forms of winning or losing. It is forbidden to provide transactions or exchange services for accumulated game points, and it is also forbidden to provide services for exchange of cash and property through virtual currency in disguised form. It is forbidden to provide services with which enable donation and transfers of accumulated games points among different games players. Strict regulatory approaches must be applied to prevent from providing any conveniences and facilities for Internet gambling activities.”⁵⁶

In China, commercial gambling can be a criminal offense. As article 303 of the Criminal Law of the People’s Republic of China states:

“Whoever, for the purpose of profit, gathers people to engage in gambling, or makes gambling his profession shall be sentenced to fixed-term imprisonment of not more than three years, criminal detention or public surveillance, and shall also be fined.

⁵⁵ The full Chinese text of this Notice can be found @ <http://www.cplll.cn/law7964.html> (8 January 2014).

⁵⁶ The original Chinese text of this section is “要监督网络游戏服务单位依法开展经营活动要求其不得收取或以“虚拟货币”等方式变相收取与游戏输赢相关的佣金；开设使用游戏积分押输赢、竞猜等游戏的，要设置用户每局、每日游戏积分输赢数量，不得提供游戏积分交易、兑换或以“虚拟货币”等方式变相兑换现金、财物的服务，不得提供用户间赠予、转让等游戏积分转账服务，严格管理，防止为网络赌博活动提供便利条件”。

Running a gambling house shall be sentenced to fixed-term imprisonment of not more than three years, criminal detention or public surveillance, and shall also be fined. If the situation is severe, he/she shall be sentenced to fixed-term imprisonment of not less than three years but not more than ten years.”⁵⁷

In Internet games, it is possible to operate most types of gambling methods that exist in the real life, such as online casino, online betting, online poker, online slot machines, virtual sports and races, etc,⁵⁸ and virtual currency can be used as a tool to promote online gambling. Thus, it is clear that the purpose of the above Notice is not to regulate virtual currency, but to prohibit gambling through Internet games.

This Notice can be linked to the “externalities” regulatory theories. The author has suggested that negative externalities can be used as rationales for the regulation of virtual currency in China. An obvious example, which China is concerned about, is the social harm arising from gambling. If this is increased because virtual currency is available, that could justify some regulation.⁵⁹

4.2 “Notice on Further Enhancing the Regulatory Work of Cyber Cafes and Internet Games”

On February 15th, 2007, another Notice named “Notice on Further Enhancing the Regulatory Work of Cyber Cafés and Internet Games” (关于进一步加强网吧及网络游戏管理工作的通知)⁶⁰ was jointly released by 14 central governmental departments of the People’s Republic of China, which are the Ministry of Culture, the State Administration for Industry & Commerce, the Ministry of Public Security, the Ministry of Information Industry, the

⁵⁷ The translation of this article is referred from “Criminal Law of the People’s Republic of China” @ <http://www.cecc.gov/pages/newLaws/criminalLawENG.php> (8 January 2014).

⁵⁸ Hornle, J & Zammit, B, *Cross-Border Online Gambling: Law and Policy*, (Cheltenham: Edward Elgar, 2010) p. 9. Referring to this book more analysis on online gambling law and policy.

⁵⁹ See relevant theoretical discussions in part 1.2.3 in chapter 3 of the thesis.

⁶⁰ The full Chinese text of this Notice can be found @ http://www.gov.cn/zwgk/2007-03/14/content_551192.htm (8 January 2014).

Ministry of Education, the Ministry of Finance, the Ministry of Supervision, the Ministry of Health, the People's Bank of China, the Legislative Affairs Office of the State Council, the General Administration of Press and Publication, the Central Spiritual Civilization Office, the Central Society Comprehensive Control Office, and the Central Chinese Communist Youth League.⁶¹

This Notice has spent one paragraph (section 1 (5)) to address the current regulatory spirit and attitude of the Chinese government towards the virtual currency.

“The People's Bank of China must reinforce the regulation and management of virtual currency in Internet games, and prevent the virtual currency from damaging the financial system in the real economy. The People's Bank of China must strictly restrict the gross quantity of the virtual currency issued by Internet games operators, and the purchasing quantity of individual Internet gamers. It must strictly differentiate virtual transactions and real products transactions in electronic commerce; The virtual currency issued by Internet games operators must not be used for purchasing real products, but only be used for purchasing Internet games provided by the operators and other virtual products and services. If a consumer need to redeem his virtual currency for legal tenders, the amount of legal tenders must not exceed the original amount which was spent to purchase the virtual currency. Speculatively reselling virtual currency is strictly forbidden. If any of the above provisions has been violated, the violator should be punished according to Article 32 and Article 46⁶² of the ‘Law of the People's Republic of China on the People's Bank of China’.”⁶³

⁶¹ “Understanding the Notice on Further Enhancing the Regulatory Works of Cyber Cafés and Internet Games”, from the Central Government Website of PRC @ http://www.gov.cn/zwhd/2007-03/19/content_554255.htm# (8 January 2014).

⁶² See part 4.3.2 “indirect rules” below for the details of the Art. 32 and Art. 46 of the “Law of the People's Republic of China on the People's Bank of China”.

⁶³ The original text of this provision in Chinese is “中国人民银行要加强对网络游戏中的虚拟货币的规范和管理，防范虚拟货币冲击现实经济金融秩序。要严格限制网络游戏经营单位发行虚拟货币的总量以及单个网络游戏消费者的购买额；严格区分虚拟交易和电子商务的实物交易，网络游戏经营单位发行的虚拟货币不能用于购买实物产品，只能用于购买自身提供的网络游戏等虚拟产品和服务；消费者如需将虚拟货币赎回为法定货币，其金额不得超过原购买金额；严禁倒卖虚拟货币。违反以上规定的，由中国人民银行按照《中华人民共和国中国人民银行法》第 32 条、第 46 条的规定予以处罚。” And the full text of

The reason behind this provision is that, by the year of 2007, Chinese government believed that the virtual currency in Internet games was likely to damage or create risk to financial order in the real economy (this point can be linked to the argument that ensuring systemic stability is an important rationale for the regulation of banking and financial sectors and electronic payment services.⁶⁴) Meanwhile, a substantial number of people, especially teenagers have been addicted in pursuing economic interest that the virtual currency may bring to them.⁶⁵ Therefore, this Notice has established the basic principles for the management of virtual currency and clarified the supervisory function of the People's Republic of China.

However, if we break down the details of this provision, we can point out at least two weaknesses in this Provision.

Firstly, the Provision states that “The People’s Bank of China must reinforce the regulation and management of virtual currency in Internet games, prevent the virtual currency from damaging the financial system in the real economy.” Neither the Notice itself, nor the Central Government’s following explanation--“Understanding the Notice on Further Enhancing the Regulatory Works of Cyber Cafés and Internet Games” has provided any further details on how the virtual currency will damage the financial system in the real economy. As it has been analysed in part 3.1.1 of this chapter, the virtual currency will not cause inflation in the real economy and will not affect Renminbi market. The People’s Bank of China and other departments of the Central Government also have realised this important point, so two years later, in the first comprehensive virtual currency regulatory rules in China, “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”, the lawmakers did not mention that the virtual currency may damage the financial system in the real economy.

this Notice can be seen @ <http://wgj.sh.gov.cn/node2/node741/node744/node847/node850/u1a36754.html> (8 January 2014).

⁶⁴ See relevant theoretical discussions in part 2.2.2 in chapter 3 of the thesis.

⁶⁵ “Understanding the Notice on Further Enhancing the Regulatory Works of Cyber Cafés and Internet Games”, from the Central Government Website of PRC @ http://www.gov.cn/zwhd/2007-03/19/content_554255.htm# (8 January 2014).

Secondly, the Provision also states that “The People’s Bank of China must strictly restrict the gross quantity of the virtual currency issued by Internet games operators, and the purchasing quantity of individual Internet gamers.” The author suggests that it might be possible to restrict the gross quantity of the virtual currency issued by Internet games operators, because the number of Internet games operators are limited and the leading Internet games operators are well known by both regulators and the public. The leading 12 Internet games operators are Tencent, Shanda Entertainment,⁶⁶ 163,⁶⁷ Sohu Changyou,⁶⁸ Wanmei,⁶⁹ Giant,⁷⁰ 9you,⁷¹ Guangyu,⁷² 9 cities,⁷³ Kingsoft,⁷⁴ NetDragon,⁷⁵ and Tiancity.⁷⁶ These top 12 Internet games operators take up 87.7% of the Chinese Internet games markets.⁷⁷ However, it is almost impossible to restrict the purchasing quantity of virtual currency by individual Internet gamers, because there are hundreds of millions of Chinese netizens who are making use of various kinds of virtual currency, how can the regulators monitor hundreds of millions of netizens’ virtual currency accounts balance? If the regulators set up a ceiling purchasing quantity for a specific type of virtual currency, for example, one QQ user can only purchase up to 100 Q coins; it is very easy for the same person to apply for another QQ number,⁷⁸ and he/she can purchase 200 Q coins or even more Q coins if he/she wishes.

Therefore, the author suggest that the Provision relating to the regulation of virtual currency in the “Notice on Further Enhancing the Regulatory Work of Cyber Cafés and Internet Games” (关于进一步加强网吧及网络游戏管理工作的通知) reflects that, at the point in time in 2007, the Chinese regulators had not understood the Internet games virtual currency

⁶⁶ <http://www.snda.com/cn/fstpage.html> (8 January 2014).

⁶⁷ <http://www.163.com> (8 January 2014).

⁶⁸ <http://www.changyou.com/en/index.shtml> (8 January 2014).

⁶⁹ <http://www.wanmei.com/> (8 January 2014).

⁷⁰ <http://www.ztgame.com/> (8 January 2014).

⁷¹ <http://www.9you.com> (8 January 2014).

⁷² <http://www.gyyx.cn/> (8 January 2014).

⁷³ <http://www.the9.com/> (8 January 2014).

⁷⁴ <http://www.kingsoft.com/> (8 January 2014).

⁷⁵ <http://www.nd.com.cn/> (8 January 2014).

⁷⁶ <http://www.tiancity.com/homepage/> (8 January 2014).

⁷⁷ Abstract of “2009 China Internet Games Market White Book” @ http://www.ccnt.gov.cn/sjzz/whscs/zhxw/201001/t20100119_76449.html (8 January 2014).

⁷⁸ It is very easy and totally free to apply for a QQ number at Tencent’s website. See more details @ <http://zc.qq.com/> (8 January 2014).

market very well and had not established a comprehensive framework for the regulation of virtual currency.

On the other hand, although the legal hierarchy of the above two Notices, “Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games” (关于规范网络游戏经营秩序查禁利用网络游戏赌博的通知), and “Notice on Further Enhancing the Regulatory Work of Cyber Cafés and Internet Games” (关于进一步加强网吧及网络游戏管理工作的通知) is relatively low, and the provisions on virtual currency is relatively immature, it still reflects the determination of the Chinese government to regulate virtual currency.

On this regard, a question arisen would be whether these two Notices apply to foreign virtual currency or not? The answer to this question would be “not really”. The intention of these two rules primarily aimed at regulating cyber cafés and Internet gambling within the territory of the People’s Republic of China, neither of the two rules addressed cross-border or international issues. If a foreign virtual currency operated by a foreign Internet games company is imported to the Chinese market by a local Chinese company, for example, the World of Warcraft was imported into the Chinese market, known as “Mo Shou Shi Jie” (魔兽世界),⁷⁹ then the above two rules are applicable because the foreign virtual currency has already become a local Chinese virtual currency. If a Chinese game player plays the original US version of World of Warcraft in a cyber café geographically located in China, then applicable law is subject to the conflict of law and international agreements as well as relevant international cooperation.⁸⁰

⁷⁹ See the Chinese version of the World of Warcraft @ <http://www.battlenet.com.cn/features/zh/landing/wow> (8 January 2014).

⁸⁰ A further study on the issue of conflict of law and Internet gambling can be found in Hörnle, Julia & Zammit, Brigitte, *Cross-border online gambling law and policy* (Edward Elgar Publishing Limited, 2010).

4.3 An Official Reply by the China State Administration of Taxation on “individuals gain profits by trading virtual currency through the Internet must pay personal income tax”⁸¹

Besides the two Notices, an official rule (a Reply⁸²) issued by the China State Administration of Taxation on “individuals gain profits by trading virtual currency through the Internet must pay personal income tax” (国家税务总局关于个人通过网络买卖虚拟货币取得收入征收个人所得税问题的批复) also addressed the transactions of virtual currency in China. On September 28th 2008, China’s State Administration of Taxation has announced that any income from the sale of virtual currencies will be taxed at a rate of 20 percent, the same rate as applied to real property and other transactions.⁸³ The specific rules of this Reply only contain three provisions, so it is possible to list out the full text below:

1. Individuals who purchase virtual currencies through the Internet and sell the virtual currencies to others with higher prices need to be taxed. The category of tax belongs to personal income tax, and shall be calculated in accordance with “property assignment income” accounts.⁸⁴
2. The original property value of the virtual currencies is the price and relevant tax paid by the individuals to purchase the virtual currencies.⁸⁵
3. For those individuals who cannot provide proofs of the original property value of the virtual currencies, governing administrative taxation departments should check and ratify its original property value of the virtual currencies.⁸⁶

⁸¹ See full text of the Reply @ http://www.gov.cn/zwqk/2008-10/29/content_1134356.htm (8 January 2014).

⁸² A “Reply” is normally issued by a higher administrative department/organ to a lower administrative department/organ. In the current case, the Reply was made by the China’s State Administration of Taxation to the Beijing Local Administration of Taxation. See full text of the Reply @ <http://www.chinatax.gov.cn/n480462/n480513/n480902/8191190.html> (8 January 2014).

⁸³ Dickie, Mure, “China in web money-making U-turn”, Financial times, November 3, 2008, 8. The reference is from “Westlaw, UK Current Awareness”.

⁸⁴ The original text in Chinese is “1. 个人通过网络收购玩家的虚拟货币，加价后向他人出售取得的收入，属于个人所得税应税所得，应按照“财产转让所得”项目计算缴纳个人所得税。”

⁸⁵ The original text in Chinese is “2. 个人销售虚拟货币的财产原值为其收购网络虚拟货币所支付的价款和相关税费。”

⁸⁶ The original text in Chinese is “3. 对于个人不能提供有关财产原值凭证的，由主管税务机关核定其财产原值。”

The author provides the analytical point for this Reply:

This Reply is not in conflict with section 1 (5) of the “Notice on Further Enhancing the Regulatory Work of Cyber Cafés and Internet Games” (关于进一步加强网吧及网络游戏管理工作的通知). Section 1 (5) states that “Speculatively reselling virtual currency is strictly forbidden.” The first Provision of this Reply recognises speculatively purchasing and reselling virtual currency should be taxed personal income tax. This does not mean that speculatively purchasing and selling virtual currency is legal. Because tax law has always taxed income from illegal activities – this does not legitimate those activities, but rather reflects two ideas (a) tax law is amoral, and (b) those who act unlawfully cannot be allowed to profit in tax terms as well.

4.4 A Public Announcement by the People’s Bank of China

On 16th April, 2009, the Seventh Public Announcement of the People’s Republic of China in 2009 was issued. This Public Announcement established a term “special non-financial institutions” which is defined as “non-financial legal person institutions and their subordinate institutions which are partially or wholly undertaking payment and clearance business within the territory of the People’s Republic of China”.⁸⁷

The payment and clearance business covered by the Public Announcement include:⁸⁸

1. Online payment;
2. Issuance and clearance of electronic currency;
3. Interbank clearance of banks’ negotiable instruments;
4. Bank cards interbank clearance;

⁸⁷ Art. 1 of the People’s Bank of China Public Announcement 2009 (7).

⁸⁸ Art. 2 of the People’s Bank of China Public Announcement 2009 (7).

5. Other payment and clearance business ratified by the People's Bank of China.

Importantly, this Public Announcement orders all the “special non-financial institutions” within the territory of the People's Republic of China to enrol at the Central Bank or its relevant branches before 31st July, 2009. Very detailed contents must be provided by the “special non-financial institutions” to the central bank, which encompass:

1. Payment and clearance business registration form of the “special non-financial institutions” (attachment No. 1);
2. Processing procedurals and management rules relating to payment and clearance business;
3. Internal control and risk management measures for the “special non-financial institutions”;
4. Business licenses (copy) and photocopies of the identifications of legal representative(s);
5. Constitution of the company;
6. Capital verification and audited last year financial and accounting reports;
7. Name list of senior management staff;
8. Basic situation registration form of important sponsors in the “special non-financial institutions” (attachment No. 2);
9. Certificate of technology security verification;
10. Prove of business cooperation relationships with commercial banks;
11. Declaration of materials authenticity;
12. Other requested materials by the People's Bank of china.

Attachment No. 1 of the Public Announcement—“Payment and Clearance Business Registration form for the ‘special non-financial institutions’” explicitly requires every “special non-financial institution” to submit its business categories, service regions, business scales, details of retained funds and other precise business information of the institution.

The 2009 (7) Public Announcement of the central bank has sent a strong policy signal to a number of new payment and clearance organizations which certainly include Internet third party payment providers.⁸⁹ And it is clear that one of the purposes of the Public Announcement is to collect relevant data for the issuance of the “Measures of Management on Non-Financial Institutions Payment Services” which was issued in June 2010 and took effect in 1st September 2010.⁹⁰ The question here is whether the Public Announcement covers virtual currency issuers or not.

The author argues that the intention of this Public Announcement is not to cover virtual currency issuers. Because, from the timing perspective, this Public Announcement orders all the “special non-financial institutions” within the territory of the People’s Republic of China to enrol at the Central Bank or its relevant branches before 31st July, 2009. But the comprehensive rules for the regulation of virtual currency -- “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”⁹¹ was issued on Friday 26th of June, 2009, which is before 31st July 2009. If the Public Announcement intends to catch virtual currency issuers, the comprehensive virtual currency regulation rules should be issued later than 31st July 2009, therefore to allow the central government some time to analyse the data of “special non-financial institutions” collected in accordance with the Public Announcement, and make necessary adjustment in the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”.

Meanwhile, from the perspective of governmental departments function distribution, it is clear that this Public Announcement, issued by the People’s Bank of China, does not intend

⁸⁹ See the “Internet third party payment provider” Chapter of the thesis for details.

⁹⁰ See the “Internet third party payment provider” Chapter of the thesis for details.

⁹¹ See part 4.5 of this Chapter for details.

to cover virtual currency issuers. Because the People's Bank of China is responsible for monetary policy, fiscal policy and payment system regulation, etc.⁹² Virtual currency regulation, which is considered within Internet games regulations, are dealt by the Ministry of Commerce and the Ministry of Culture of the People's Republic of China. That is why the "Notice of Enhancing Regulatory Works on Internet Games Virtual Currency" was jointly issued by the Ministry of Commerce and the Ministry of Culture.

4.5 "Notice of Enhancing Regulatory Work on Internet Games Virtual Currency"

On Friday 26th of June, 2009, the Ministry of Culture and Ministry of Commerce of the People's Republic of China jointly issued a "Notice of Enhancing Regulatory Works on Internet Games Virtual Currency" to the public. The date of this Notice shows that the contents of this Notice was finalised on 4th of June, 2009, but it was not made available to the public until 26th of June, 2009.

The Notice was the result of long discussion amongst academics, journalists and Internet games operators as well as games players. It sets out the keynote of the Chinese government's attitude towards the regulation of virtual currency. Consequently as well as necessarily, this Notice will fundamentally influence the future development of the virtual currency and the Internet games, the virtual worlds and even the Internet as a whole.

Considering the significance of this Notice, the author has independently translated the full text of this Notice from Chinese to English and attached it in the Appendix of the thesis.

⁹² See full list of the responsibilities and functions of the People's Bank of China @ <http://www.pbc.gov.cn/publish/english/952/index.html> (8 January 2014).

Overall, this Notice is worthwhile of a huge credit and should be magnificently praised. It is a timely and good Notice. The author is summarising the key points of the Notice and providing his critical analysis below.

4.5.1 The first comprehensive and systematic regulatory Measures of virtual currency

First and foremost, before the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”, the regulation of virtual currency in China was in a piecemeal and uncoordinated manner. Different Notices and regulatory rules issued by different departments covered the regulation of virtual currency from different angles. As it has been discussed before, the “Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games” touches upon the regulation of virtual currency from gambling perspective. The “Notice on Further Enhancing the Regulatory Work of Cyber Cafes and Internet Games” attempts to regulate virtual currency while regulating cyber cafes. None of them explicitly and specifically targets the regulation of virtual currency. The official Reply issued by the China State Administration of Taxation on “individuals gain profits by trading virtual currency through the Internet must pay personal income tax” suffers from lack of feasibility and enforceability. With the issuance of the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”, a comprehensive regulatory framework for virtual currency has been established (although it is not a perfect one -- no law is perfect).

4.5.2 Defining “Internet games virtual currency”

Defining the concept of “Internet games virtual currency” is the foundation of regulating virtual currency.⁹³ Article 1 of the Notice provides a clear definition for “Internet games virtual currency”:

⁹³ Sina Games, “Explaining and understanding the ‘Notice of Enhancing Regulatory Works on Internet Games Virtual Currency’ ” @ <http://games.sina.com.cn/y/n/2009-06-29/1033321996.shtml> (8 January 2014).

“The Internet Games Virtual Currency described in this Notice is a kind of virtual exchange instrument which is issued by Internet games operation enterprises, purchased by games users *pro rata* directly or indirectly with legitimate currency, existing outside games programs, stored in the form of electromagnetic recordings within servers provided by Internet games operation enterprises and represents in specific digital units. Internet games virtual currency is used to exchange Internet games services provided by issuance enterprises within specified range and specified time. Existence forms of virtual currency include pre-paid card, pre-paid amounts of money or points and etc in the Internet games, but do not include games equipments from the Internet games activities.”

The definition of “Internet games virtual currency” given by this Notice has clarified the scope of “Internet games virtual currency”, and distinguished “Internet games virtual currency” from “Internet games virtual equipments”. The consideration behind this distinction, according to Mr. Tuo Zuhai (庹祖海), Deputy Director of the Department of Culture Market of the Ministry of Culture of the People’s Republic of China, is that “Internet games virtual equipments” are generated from Internet games and are playing a certain gaming functions with the Internet games; “Internet games virtual currency” is purchased directly or indirectly with legitimate currency. Their different sources and functions determined that different regulatory rules are needed.⁹⁴ To clarify the difference, items such as virtual sword in the Second Life is virtual equipment which can be generated in the games; items such as Q coins is virtual currency which can only be purchased through games operators or from other game players/speculators.

Therefore, article 26 of this Notice states:

⁹⁴ Mr. Tuo Zuhai (庹祖海), Deputy Director of the Department of Culture Market of the Ministry of Culture of the People’s Republic of China, explains the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency” @ <http://game.people.com.cn/GB/146480/146482/index.html> (8 January 2014).

“The name of an Internet game virtual currency issued by an Internet game operation enterprise must not duplicate the name of the virtual equipment in that game.

Regulatory rules on Internet games virtual equipments will be formulated by culture administrative departments of the State Council alone with other relevant departments and authorities.”

Although the author has also provided his own definition of “virtual currency” and explained why he adopted a wider approach to define the “virtual currency” in part 1.1 of this Chapter, the author supports the definition of “Internet games virtual currency” given by this Notice and understands that this definition is given for the sake of convenient regulation and administration.

4.5.3 Regulating market behaviours

First of all, the Notice distinguishes two types of Internet games virtual currency services which are “Internet games virtual currency issuance service” and “Internet games virtual currency exchange service”. “Internet games virtual currency issuance enterprise” means those Internet games operation enterprises which issue and provide virtual currency uses service. “Internet games virtual currency exchange service enterprise” means those enterprises which provide Internet games virtual currency exchange service platform for users. One enterprise is not allowed to engage in those two types of services at the same time.⁹⁵ Explained by Mr. Tuo Zuhai, the purpose of this stipulation is to prevent overissuing virtual currency and prevent manipulating virtual currency trade.⁹⁶

However, the author suggests that it is difficult to enforce this stipulation, because if one enterprise intends to engage both “Internet games virtual currency issuance service” and

⁹⁵ Article 2 of the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”.

⁹⁶ Mr. Tuo Zuhai (屠祖海), Deputy Director of the Department of Culture Market of the Ministry of Culture of the People’s Republic of China, explains the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency” @ <http://game.people.com.cn/GB/146480/146482/index.html> (8 January 2014).

“Internet games virtual currency exchange service”, it could register two separate subordinate enterprises and engage the two services at the same time.⁹⁷

Secondly, the most important article on regulating market behaviours in this Notice is article 8 which states:

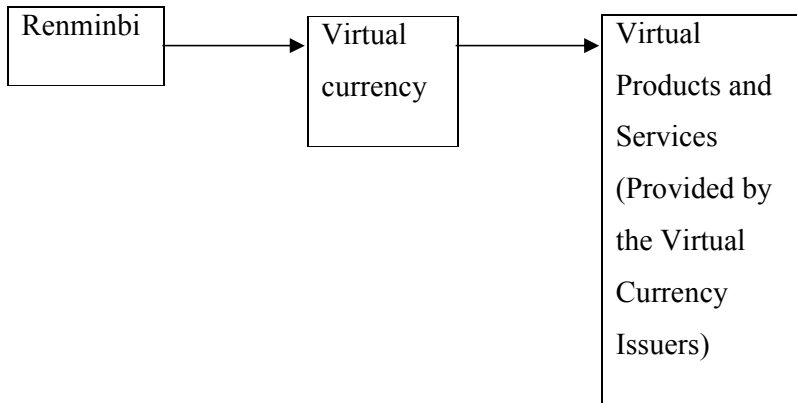
The use range of the virtual currency is confined to exchange virtual services provided by the issuance enterprise itself, but not allow to the payment and purchasing of real products, nor exchange for any product and service provided by other enterprises.

This purpose of article is preventing virtual currency from affecting Renminbi market and preventing virtual currency from striking the real economy (this article can be linked to the argument that ensuring systemic stability is an important rationale for the regulation of banking and financial sectors and electronic payment services.⁹⁸). As it has been analysed in part 3.1.1 of this Chapter, as long as the exchange of Renminbi to virtual currency is a one way process (apart from very few ‘black markets’ that provide double way conversion), and the virtual currency has formed a self-circulation system which provides no withdrawal path, virtual currency transaction will not cause any noticeable impact on the Renminbi market, and will not strike the real economy.

⁹⁷ This argument was inspired by Mr. Liu Xingliang (刘兴亮)’s blog “The main purpose of the new regulation of virtual currency” @ http://blog.sina.com.cn/s/blog_56c35a550100dxqo.html~type=v5_one&label=rela_articletagpub (8 January 2014).

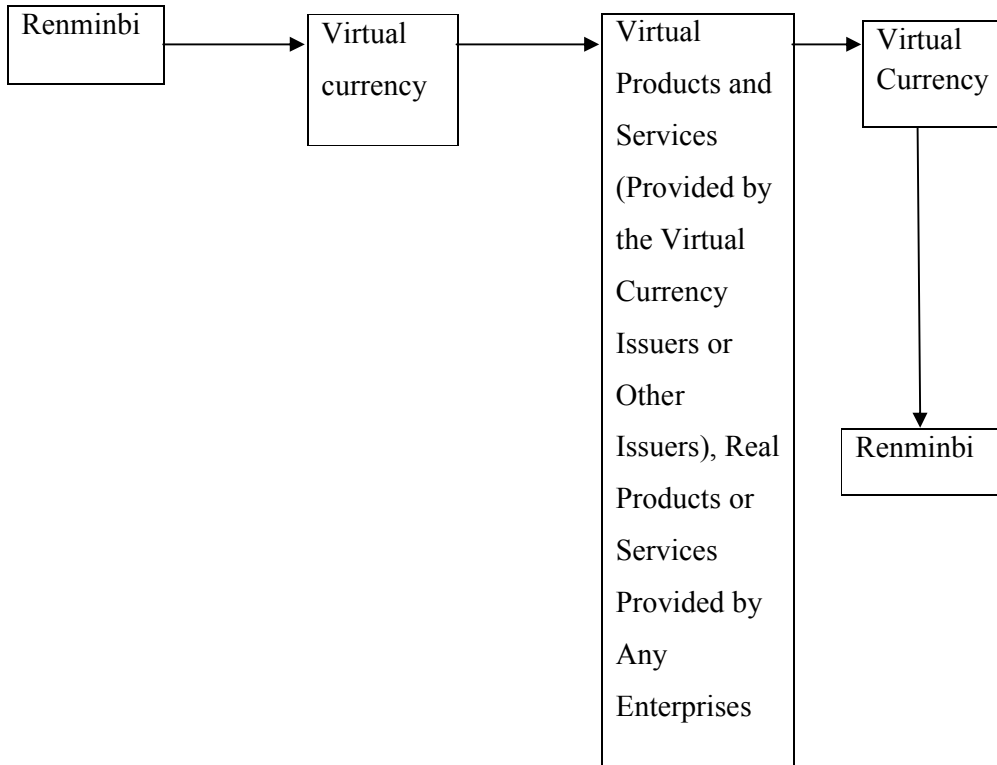
⁹⁸ See relevant theoretical discussions in part 2.2.2 in chapter 3 of the thesis.

In other words, ideally, virtual currency is supposed to circulate in this way:⁹⁹



⁹⁹ This chart was inspired by Mr. Liu Xingliang (刘兴亮)'s blog "The main purpose of the new regulation of virtual currency" @ http://blog.sina.com.cn/s/blog_56c35a550100dxqo.html?type=v5_one&label=rela_articletagpub (8 January 2014).

Virtual currency must not circulate in this way:



4.5.4 A strong consumer protection approach

This Notice adopts a strong “consumers protection” approach for Internet games virtual currency users (This approach can be linked to the argument that consumers protection is an important rationale for the regulation of banking and financial sectors and electronic payment services.¹⁰⁰) It will balance the positions between users and operators and equalize unequal bargaining power between the two parties. The consumer protection provisions within this Notice include article 3, 4, 7, 9, 10, 11, 14, 16, 17, and 18 which contains four key points.

¹⁰⁰ See relevant theoretical discussions in part 2.2.2 in chapter 3 of the thesis.

Firstly, consumers' economic interest pertaining to Internet games virtual currency are protected. For example, article 11 of this Notice requires that:

“A 60-day notice should be given before Internet games operation enterprises plan to terminate the supply of their products and services. At the time of termination, for those virtual currency which has been purchased but not been used by users, Internet game operation enterprises must refund the users with legitimate currency or with other forms accepted by the users.”

Secondly, consumers' private information and data pertaining to Internet games virtual currency are protected. For example, article 7 states:

“...When issuing Internet games virtual currency, Internet games operation enterprises must retain users' top-up records. The period of the record-retaining must not be less than 180 days from the date of top-up.”

Although this is just a data retention requirement, which does not directly address the consumer protection issue, the consumer can use the recorded data as an evidence to defend his/her rights in case that there is a dispute arising between the consumer and the Internet game operator.

Thirdly, dispute resolution among consumers has been established. For example, article 9 & 10 states:

“Internet games operation enterprises must adopt necessary measures as well as complain and adjustment procedures to protect users' lawful rights and interest; and enterprises must illustrate the measures and procedures clearly in notable positions of their websites.”

“When disputes occur during the use process of the Internet games virtual currency, users must produce personal valid identifications which are identical to their registered identifications information. After verifying the users’ identifications, Internet games operation enterprises must provide top-up and transfers records of the virtual currency, and deal with the disputes according to the complain and adjustment procedures. When users’ lawful rights and interest are infringed, Internet games operation enterprises must positively coordinate taking evidence and disputes resolution.”

Fourthly, young people who are under 18 years old are prevented from using virtual currency exchange services. Article 16 of the Notice states:

“Internet games virtual currency exchange service enterprises are not allowed to provide exchange services for people under 18 years old.”

Explained by Mr Tuo Zuhai, the reason behind this stipulation is that when young people purchase Internet games virtual currency to play games, it is an entertainment activity; however, when young people trade virtual currency, the nature of the activity changes, it becomes an economic activity.¹⁰¹ They are too young to understand the nature of the economic activity; therefore, it should be banned. The author fully supports this stipulation and believes that there are ethical and moral justifications behind this article.

4.5.5 Setting up an example for the world

Putting this “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency” in an international context, the issuance of this Notice shows that in the area of Internet industry,

¹⁰¹ Mr. Tuo Zuhai (屠祖海), Deputy Director of the Department of Culture Market of the Ministry of Culture of the People’s Republic of China, explains the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency” @ <http://game.people.com.cn/GB/146480/146482/index.html> (8 January 2014).

and in the Internet lawmaking region, China is not falling behind western developed countries. Instead, the measures that China has adopted and the valuable experiences that China has gained might be a reference for the rest of the world. The author suggests that the emergence of virtual currency or cyberspace money might be a global phenomenon. How to regulate it in law, here, China has already set up an example. The next step is to enforce the regulatory rules properly, monitor its effects (both positive and negative effects), and adjust the rules accordingly.

4.6 “Provisional Measures of Management on Internet Games”¹⁰²

On 3rd of June 2010, the “Provisional Measures of Management on Internet Games” was issued by the Ministry of Culture of the People’s Republic of China, and has taken effect from 1st of August 2010. This Provisional Measures is regarded as the first comprehensive regulatory rules for Internet games in China.¹⁰³ Article 2, 6, 18, 19, 20, 22, 29, 32, and 33 refer to the regulation of Internet games virtual currency. However, those articles are almost identical with the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”. Therefore, the author will not discuss the Measures further.

5. Conclusion

From basic definition to life cycle and industry chain, from economic justifications to ethical and moral arguments, from piecemeal and uncoordinated regulatory rules to comprehensive and systematic regulatory framework, the author has examined most relevant legal aspects of virtual currency and the regulation of virtual currency in China in this Chapter.

The author has also identified and extensively discussed the Chinese regulatory framework on virtual currency which consists of the “Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games”, “Notice on Further

¹⁰² See full text in Chinese @ http://www.gov.cn/flfg/2010-06/22/content_1633935.htm (8 January 2014).

¹⁰³ “The Ministry of Culture issued a Notice to enforce the “Provisional Measures of Management on Internet Games” @ <http://game.people.com.cn/GB/48604/48623/12304741.html> (8 January 2014).

Enhancing the Regulatory Work of Cyber Cafes and Internet Games”, the Official Reply by the China State Administration of Taxation on “individuals gain profits by trading virtual currency through the Internet must pay personal income tax”, the Public Announcement by the People’s Bank of China, “Notice of Enhancing Regulatory Work on Internet Games Virtual Currency”.

As the author has suggested in part 4 in chapter 3 of the thesis, there are three main aims for the regulation of new electronic payment services in China.

- Ensuring the safety, stability and soundness of the new electronic payment services
- Protecting consumers
- Promoting technological innovations

It is possible to assess the Chinese regulatory framework on virtual currency against the regulatory aims the author has identified and draw a conclusion. The conclusion is that the regulatory framework has focused and emphasized ensuring the safety, stability and soundness of the virtual currency system, and the protection of consumers. Especially the first comprehensive and systematic regulatory Measures of virtual currency -- “Notice of Enhancing Regulatory Work on Internet Games Virtual Currency” adopted a strong consumer protection approach. However, the regulators seem to have ignored the third aim – promoting technological innovations. On the one hand, as a new phenomenon in the Internet, the Chinese law and regulators should promote the development and innovation of virtual currency; on the other hand, the Chinese law should balance the innovation of virtual currency with consumer protection, young people protection and other social and ethical interest. This aim of “promoting technological innovations” links to light-touch regulation and technology neutrality principle which is discussed in part 3 in chapter 7 of the thesis.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

1. Introduction

1.1 Overview

The Internet is a vibrant arena of economical development and transformation that brings producers, distributors, and consumers together in an efficient and innovative manner. By doing so, it enables the exploration and implementation of economic transactions without having to build costly new facilities; people all over the world can use the Internet as a living lab for creating and developing new kinds of interactions for the production of value.¹

“The vibrancy of economic transactions online becomes tangible in relation to money. Money is multiplying on the Internet; new currencies are constantly being invented for company-created virtual worlds where people operate through personalized avatars. A fundamental difference between virtual worlds and the offline world is that virtual worlds can be owned by companies; this means that virtual worlds are often backed by venture capitalists who expect to make a profit. New currencies are used for managing and generating cash flows; they are designed as “special-purpose money” (Polanyi 1968) for certain forms of exchange. For instance, in Second Life, a special purpose currency (which is called virtual currency in the thesis) is used for purchasing clothes, furniture, and land and property for avatars.”² Also, for instance, in Paypal (which is called Internet third party payment in the

¹ Ruckenstein, Minna, University of Helsinki, “Currencies and Capitalisms on the Internet”, Volume 2, Number 4, Virtual Economies, Virtual Goods and Service Delivery in Virtual Worlds February 2010, *Journal of Virtual Worlds Research*, p.4.

² Ruckenstein, Minna, University of Helsinki, “Currencies and Capitalisms on the Internet”, Volume 2, Number 4, Virtual Economies, Virtual Goods and Service Delivery in Virtual Worlds February 2010, *Journal of Virtual Worlds Research*, p.5.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

thesis), a special purpose currency is used for purchasing a vast number of goods and services both online and offline.

The author has extensively discussed Internet third party payment and its regulation in China in Chapter 4, and virtual currency and its regulation in China in Chapter 5. The purpose of this Chapter is to examine the regulation of Internet third party payment and virtual currency in the European Union and United Kingdom, to compare the EU and UK regulatory regime with the Chinese regulatory regime. Based on the contents in chapter 1, 2, 3, 4, 5, and 6, in conclusion chapter of the thesis -- Chapter 7, the author will be able to investigate whether there are some good principles, practical measures or even unsuccessful lessons which China may learn from the EU and UK experiences, and from western regulatory theories.

Internet third party payment has been extensively discussed at part 4.1.2 of Chapter 1 and in Chapter 2. In China, leading Internet third party payment providers include Alipay, Tenpay, QuickMoney, etc. In the EU and UK, Paypal is the most important Internet third party payment provider. Other than Paypal, Neteller is also an important Internet third party payment provider in the UK with worldwide business reach.³

Regarding the virtual currency, as it has been discussed at part 1.1 of Chapter 3 of the thesis, with a global perspective, the author defines virtual currency as “a kind of newly emerging electronic payment instrument issued by Internet companies to be used by their users in relevant Internet companies’ platforms or online games (especially massively multiplayer online role-playing games) to perform the same economic functions as states-issued currency serves in the real world.” Examples of virtual currency discussed in this Chapter include Linden Dollars issued by Linden Lab and used in Second Life,⁴ World of Warcraft gold is

³ NETELLER (UK) Ltd (a wholly-owned subsidiary of Optimal Payments Plc) is authorised by the Financial Services Authority under the Electronic Money Regulations 2011 (900015) for the issuing of electronic money. See more details @ <http://www.neteller.com/> (8 January 2014).

⁴ Linden Dollar is the virtual currency being used in the virtual world Second Life. See more information about the Linden Dollar and Second Life @ <http://secondlife.com/> (8 January 2014).

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

issued by Blizzard Entertainment used in the World of Warcraft game,⁵ Aion Kinah is the virtual currency used in Aion Online,⁶ (Aion Kinah is obtained by completing quests, defeating monsters and even through the in-game auction house).⁷

It is worthwhile to mention that much of the virtual currency used in the European Union is issued by Internet games companies which originally came from the United States of America (the primary place of origin), South Korea and other countries outside the European Union. For example, Linden Dollars are issued by an American company called Linden Lab.⁸ Blizzard Entertainment is originally an American company, but now with offices across the globe and millions of players playing its games in more than a dozen languages.⁹ Aion Online is developed by a South Korea Company named NCsoft whose games entertain players around the world.¹⁰

1.2 Internet third party payment in the EU—with the example of Paypal Europe

Due to the importance and popularity of Paypal, and because Paypal is making use of European passport to operate in major European countries (such as France and the UK),¹¹ therefore, the author is using Paypal to illustrate how Internet third party payment provider is working in the EU.

⁵ World of Warcraft gold is issued by Blizzard Entertainment. See Blizzard Entertainment official website @ <http://us.blizzard.com/en-gb/> (8 January 2014). The World of Warcraft Chinese website is @ <http://www.battlenet.com.cn/features/zh/landing/wow> (8 January 2014).

⁶ <http://uk.aiononline.com/> (8 January 2014).

⁷ http://www.ige.com/aion-eu/kinah/aion-online-eu_en.html (8 January 2014).

⁸ See more introduction of Linden Lab @ <http://lindenlab.com/> (8 January 2014).

⁹ See more introduction of Blizzard Entertainment @ <http://eu.blizzard.com/en-gb/company/about/b20/> (8 January 2014).

¹⁰ See more introduction of NCsoft @ <http://www.ncsoft.net/global/aboutus/overview.aspx> (8 January 2014).

¹¹ Le More, Pauline & Mazza, Christelle, “Securing the transfer of money in the new technologies context: the case of the French online gaming sector”, *International Business Law Journal* 2011, 5, 555-568, p. 559.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

Paypal, a company founded in 1998,¹² has often been called “email money”, a name that is increasingly less accurate. A customer can open a Paypal account by giving their credit card or bank information in a simple transaction that can take up to five minutes. However, the account will not become active until the customer has validated the bank account or credit card used. This is usually performed by a small charge (for example, £0.01) made by Paypal to that account (the amount varies). The consumer then checks the amount and goes back to Paypal to verify it. Another way of verification is a code that shows up on the monthly credit card report, which must be then verified back in Paypal’s account management site.¹³

Once this account is created, the customer can send money to any person giving their email address and placing a money sum in an easy to use online form. Once the recipient receives the email, he must open a Paypal account; the money then is taken from the sender’s bank account or credit card and deposited into a new account in Paypal, acting almost like a viral payment system, and explaining the incredible growth of Paypal as a viable online payment method.¹⁴

Each Paypal consumer can choose to keep their money in an account with the company for further use, or can choose to have that amount of money credited to their bank or credit card account. It is important to point out that Paypal does not disclose the account information of both parties to each other, ensuring the security of the transactions.¹⁵

Paypal operates by placing a small charge to each online transaction. For customer accounts, the average sum charged for transactions under \$ 15 USD is \$ 0.30. For UK personal accounts the transaction is free,¹⁶ but the customer cannot receive credit card payments. For

¹² See details of Paypal history@ <https://www.paypal-media.com/history> (8 January 2014).

¹³ Guadamuz Gonzalez, Andres, Paypal: the legal status of C2C payment systems, *Computer Law & Security Report*. 2004, 20 (4), 293-299.

¹⁴ Sapsford, Jathon. “PayPal Sees Torrid Growth With Money-Sending Service”, *The Wall Street Journal*, February 16, 2000. @ <http://www.planetagenda.com/Pay%20Pal%20Wall%20Street.htm> (8 January 2014).

¹⁵ Sorkin, David. E. “Payment Methods for Consumer-to-Consumer Online Transactions”, *Akron Law Review* Volume 35, Number 1, 2001. p. 11-12. @ <http://www.uakron.edu/law/lawreview/v35/docs/sorkin351.pdf> (8 January 2014).

¹⁶ <https://www.paypal-marketing.co.uk/whypaypal/index.htm#costs> (8 January 2014).

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

premier and business accounts, the fees vary according to volume of transaction.¹⁷ When currencies conversion is need, there are also some fees.¹⁸

Because many customers leave money that they have received as means of payments in their accounts, Paypal appears to operate with these deposits to fund their transactions. According to Peter Thiel, the Former CEP and co-founder of Paypal, “The Paypal account doesn’t provide interest, so Paypal can invest any money left there until the user wants to spend it.”¹⁹ Paypal places the money deposited by users into a bank account at Wells Fargo Bank and into money market fund managed by them.²⁰

A recent development of Paypal is that Paypal allows customers to register their mobile phone with Paypal and then to send transaction instructions to Paypal from their phone. This allows customers to check their balance and make payments out of their Paypal account to other users or merchants. Customers can contact Paypal via SMS message, mobile web or using a conventional phone call and touch tones. Further, customers can send funds to any third party, identified by either an email address or mobile phone number. The recipient needs to register with Paypal to collect the funds.²¹ Essentially, this is an extension of the previous Paypal service. Under the Paypal service, customers transfer funds from their account with Paypal to other customers, who either use the funds to make further payments or claim the funds back from Paypal (who pays the funds into a conventional bank account or credit card account, or sends the customer a cheque). With the Paypal service, payments are effectively just ledger entries on Paypal’s books, decreasing the payer’s balance and

¹⁷ Guadamuz Gonzalez, Andres, Paypal: the legal status of C2C payment systems, *Computer Law & Security Report*. 2004, 20 (4), 293-299.

¹⁸ See details of the fees @ https://www.paypal.com/uk/cgi-bin/webscr?cmd=_display-fees-outside (8 January 2014).

¹⁹ See Peter Thiel’s view cited by Sapsford, Jathon. “PayPal Sees Torrid Growth With Money-Sending Service”, *The Wall Street Journal*, February 16, 2000. @ <http://www.planetagenda.com/Pay%20Pal%20Wall%20Street.htm> (8 January 2014).

²⁰ Guadamuz Gonzalez, Andres, Paypal: the legal status of C2C payment systems, *Computer Law & Security Report*. 2004, 20 (4), 293-299.

²¹ Bollen, Rhys, “Recent developments in mobile banking and payments”, *Journal of International Banking Law and Regulation* 2009, 24(9), p.454-469, p. 458.

increasing the payee' balance to effect a payment from the payer to payee (less any fee levied by Paypal, which is generally borne by the payer).²²

Having analysed the working mechanism of Paypal, it is sensible to point out here that Paypal Europe decided to be regulated as a credit institution rather than as an electronic money issuer.²³ Paypal Europe is duly licensed as a Luxembourg credit institution in the sense of Article 2 of the law of 5 April 1993 on the financial sector as amended and is under the prudential supervision of the Luxembourg supervisory authority, the Commission de Surveillance du Secteur Financier, with registered office in L-1150 Luxembourg.²⁴ Detailed legal analysis is placed in part 2, 3, & 4 of this chapter.

1.3 Virtual currencies, virtual property and economy in virtual worlds: how people interact economically in the virtual environments?

As a type of virtual property and particular economic phenomenon, virtual currency exists in the virtual world of massively multiplayer online role-playing games (MMORPG), thus, virtual currency need to be discussed along with virtual property and the virtual world.

The virtual worlds of massively multiplayer online role-playing games (MMORPG) opened the door to the creation of a new type of virtual property that looks more like a chattel or real property than intangible property. Virtual worlds are “digital [representations] of a physical space” that are often “created and maintained as an online game.”²⁵ Theodore Westbrook has explained a virtual world as follows:

²² Bollen, Rhys, “Recent developments in mobile banking and payments”, *Journal of International Banking Law and Regulation* 2009, 24(9), p.454-469, p. 458.

²³ Caplehorn, Robert, “Paypal Europe: reasons for becoming a bank”, *E-Commerce Law & Policy* 2007, 9 (6), 3

²⁴ Legal Mentions of Paypal@ https://www.paypal.com/uk/cgi-bin/webscr?cmd=p/gen/mentions_eu-outside (8 January 2014).

²⁵ Abramovitch, Susan & Cummings, David, “Virtual property, real law-the regulation of property in video games: Part 1”, *Entertainment Law Review*. 2010, 21 (1), p. 15.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

“Essentially, it is a host location that mimics aspects of our own universe. When a personal computer (PC) user logs into a virtual world, he is then represented by a visual depiction that acts as his proxy within this world, obeying his keyed and clicked commands. Unlike the typical console or non-networked PC game atmosphere, a virtual world is host to many such representative proxies, known as avatars, ranging from a few to over one million. These avatars perform various activities; they interact through ... communications, they move about the virtual world, and they manipulate the various aspects of the world that have been designed for such manipulation.”²⁶

Simply put, virtual worlds are simulated depictions of the physical real world, although at times fantastical encompassing virtual public spaces (such as stadiums, restaurants and malls) and virtual goods (such as t-shirts, helmets and guitars).²⁷

Virtual property is vital to the functioning of most virtual worlds as they are often based on virtual economic systems. The virtual property within these virtual worlds provides the incentive for players to participate, and to continue to participate, in virtual worlds. Virtual currencies in the virtual world of multiplayer online role-playing games (MMORPG) can be used to “purchase everything from experience points to spells, and virtual goods such as clothing and weapons”.²⁸ As the foundation for virtual economies that imitate many real world economies, especially western capitalist economies, virtual property can be seen to have many similarities to real world property.²⁹ For instance, in massively multiplayer online role-playing games (MMORPG) “virtual chattels existing in virtual worlds clearly mimic real world goods”: a player could hypothetically use his or her avatar to create or obtain a shovel, which could then be used in turn to build another piece of virtual property. No other player

²⁶ Theodore J. Westbrook, “Owned: Finding a place for virtual world property rights” (2006) 3 *Michigan State Law Review* 779, p. 783 @ <http://www.msulawreview.org/PDFS/2006/3/Westbrook.pdf> (8 January 2014).

²⁷ Abramovitch, Susan & Cummings, David, “Virtual property, real law-the regulation of property in video games: Part 1”, *Entertainment Law Review*. 2010, 21 (1), p. 15.

²⁸ Bradbury, Danny, “Are virtual-reality games the new Wild West, and if so, who will police them?” *Backbone Magazine* (27 October 2006) @ http://www.backbonemag.com/Magazine/E_Law_10270601.asp (8 January 2014).

²⁹ Lastowka, Greg and Hunter, Dan, “The Laws of the Virtual Worlds.” University of Pennsylvania Law School, Public Law and Legal Theory Research Paper series, Research paper No. 26, Institute for Law and Economics Research paper No. 03-10, p. 37-38. SSRN @ <http://ssrn.com/abstract=402860> (8 January 2014).

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

would virtually own that shovel and the shovel would be available to the player as long as he or she subscribes to the game. The player could also sell the shovel to another player for whatever currency system is available within the game.³⁰

In addition to swapping virtual items exclusively within the virtual worlds, players can swap virtual property amongst each other in the real world. In-game items can be exchanged for virtual currency and both virtual currency and in-game objects can be exchanged for real world money.³¹ For example, World of Warcraft EU gold can be swapped for GB pounds on a currency exchange platform called Internet Game Entertainment. These transactions occur as follows: one avatar finds another within the game who has a desirable piece of virtual property. After a negotiation, the deal is completed through an instant message screen and an online payment service such as Paypal. Since the goods all require a certain amount of virtual currency amassed, and the accumulation of virtual currency requires the expenditure of time, these trades “[amount] to a basic exchange of currency for time”.³² There is a real world value for the virtual goods and currencies.³³

Most virtual worlds and massive multiplayer online games and indeed social networking sites only have a currency issue at the point at which a subscriber or player joins the community or game. The right to participate on occasions is free as an inducement but then subsequently charges are levied on a subscription, “pay as you go” or level of interaction basis.³⁴

³⁰ Abramovitch, Susan & Cummings, David, “Virtual property, real law-the regulation of property in video games: Part 1”, *Entertainment Law Review*. 2010, 21 (1), p. 15. And also see Fairfield, Joshua, “Virtual property” Boston University Law Review, 2005, Volume 85, p. 1047; Indiana Legal Studies Research Paper No. 35.@ http://papers.ssrn.com/sol3/papers.cfm?abstract_id=807966 (8 January 2014).

³¹ See this point in general Stephens, Molly, “Sales of in-game assets: an illustration of the Continuing failure of intellectual property law to protect digital creators” 2002, 80 *Texas Law Review* 1513.

³² Bradbury, Danny, “Are Virtual-Reality Games The New Wild West, and if so, Who Will Police Them?” *Backbone Magazine* @ http://www.backbonemag.com/Magazine/E_Law_10270601.asp (8 January 2014).

³³ This paragraph is cited from Abramovitch, Susan & Cummings, David, “Virtual property, real law-the regulation of property in video games: Part 1”, *Entertainment Law Review*. 2010, 21 (1), p. 15.

³⁴ Bond, Robert, “Business trends in virtual worlds and social networks-an overview of the legal and regulatory issues relating to intellectual property and money transactions”, *Entertainment Law Review* 2009, 20 (4), 121-128.

In the above part 1.2 & 1.3 of this chapter, the working mechanism and economic sides of Internet third party payment and virtual currency have been discussed. It is time to discuss the legal aspects.

1.4 Electronic money and electronic money regulations

To date, no Directive or Regulation in the EU level has been introduced to specifically regulate Internet third party payment or virtual currency, and similarly, in the UK level, no laws and rules has been specifically made to catch the Internet third party payment or virtual currency. Laws that most closely link to the Internet third party payment and virtual currency are that of electronic money-related rules. Therefore, it is essential to understand and analyse the electronic money market in the EU, and the laws of electronic money both in the EU and UK level so as to figure out relevant regulatory approaches for the Internet third party payment and virtual currency.

Specifically, there are two European Union Directives which are most relevant: the Electronic Money Directive 2000³⁵ which has been replaced by the Electronic Money Directive 2009,³⁶ and the Payment Services Directive 2007,³⁷ Although the Electronic Money Directive 2000 has been replaced by the Electronic Money Directive 2009, it is still necessary to examine both the old and new Directives to demonstrate the development trend of the regulation of electronic money in the EU.

In contrast to the EU, the US approach is refreshingly simple. It is simple because it is an approach not to regulate at all. There are presently no special restrictions pertaining to the

³⁵ Directive 2000/46/EC of the European Parliament and of the Council of 18 September 2000 on the taking up, pursuit of and prudential supervision of the business of electronic money institutions. O.J. L 275 of 27.10.2000, p. 39-43.

³⁶ Directive 2009/110/EC of the European Parliament and of the Council of 16 September 2009 on the taking up, pursuit and prudential supervision of the business of electronic money institutions amending Directives 2005/60/EC and 2006/48/EC and repealing Directive 2000/46/EC. O.J. L 267 of 10.10.2009, p. 7-17.

³⁷ Directive 2007/64/EC of the European Parliament and of the Council of 13 November 2007 on payment services in the internal market amending Directive 97/7/EC, 2002/65/EC, 2005/60/EC and 2006/48/EC and repealing Directive 97/5/EC. O. J. L 319 of 05.12.2007, p. 1-36.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

issuing of e-money, and there are, so far, no government proposals for any future restrictions either.³⁸ Some academics raise the issue of risk and regulation, but policy makers including the former chairman of the Federal Reserve Alan Greenspan do not see any need for intervention.³⁹ Thus, the Federal Reserve took a fairly relaxed view on e-money, arguing that early regulation might stifle innovation.⁴⁰ If the abovementioned companies, such as Second Life and World of Warcraft, are issuing their virtual currencies in the US (actually they are doing so), they are doing so in a largely unregulated environment. If these currencies were issued in the EU, they might be subject to relevant regulations. This thesis is not going into detailed analysis of the US law, and the following analyses in this chapter is based on the assumption that if these virtual currencies are issued in the EU and what potential applications would occur.

Before extensively discussing the EU law, it is helpful to introduce the history and examples of the electronic money in accordance with the EU official document.

As it was summarised in the European Community Commission Staff working document⁴¹, the first electronic money products launched in the early 1990s were electronic purses. These services, enabling consumers to store electronic money on a chip of a smart card, are used to replace low-value cash payments at the point of sale. They are known as “cards based e-money”. Examples of these of schemes are:

³⁸ Kohlbach, Manfred, 'Making Sense of Electronic Money', 2004 (1) The Journal of Information, Law and Technology (JILT), @ http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2004_1/kohlbach/ (8 January 2014).

³⁹ Greenspan, Alan, writes: 'I am specifically concerned that we not attempt to impede unduly our newest innovation, electronic money, or more generally, our increasingly broad electronic payments system'. See full article @ http://www.cato.org/pubs/policy_report/cpr-19n2-1.html (8 January 2014).

⁴⁰ This difference of attitude between the Fed and the European Central Bank has sometimes led to the general judgement that payments are heavily regulated in Europe whereas regulators in the US supposedly intervene very little. However, such a view is mistaken. A closer look at payment regulation in the US shows that there are many layers, coming from federal agencies as well as from the states. Krueger, Malte, “E-money regulation in the EU” @ <http://www.paysys.de/download/Krueger%20e-money%20regul.pdf> (8 January 2014), and its reference Ramasastry, Anita (2001): E-Money Regulation in the United States, ePSO-Newsletter 11, November.

⁴¹ Draft Commission Staff Working Document Accompanying document to the Proposal for a Directive of the European Parliament and of the Council amending Directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions IMPACT ASSESSMENT {COM(2008)627 final} {SEC(2008)2572} p.7 http://ec.europa.eu/internal_market/payments/docs/emoney/sec-2008-2573-impact_ass_en.pdf (8 January 2014).

- Belgium PROTON system -- PROTON is a multipurpose prepaid card scheme launched by Banksys in February 1995. It is a microprocessor card which stores monetary value as opposed to tokens or units of service (as a phonecard does). It is designed to be a substitute for cash and is targeted at payments below EUR 15 at local retail outlets, vending machines, car parks, ticket machines, payphones and on public transports.⁴²
- Transport for London Oyster Cards-- Oyster card is a plastic smartcard customers can use instead of paper tickets in London public transport, such as London underground, buses, and some trains.⁴³
- Hong Kong Octopus Cards-- the Octopus card is a rechargeable contactless stored value smart card used to transfer electronic payments in online or offline systems in Hong Kong, the Octopus card system was the first contactless smart card system in the world and has since grown into a widely used payment system for virtually all public transport as well as some payment systems outside the transport sector in Hong Kong.⁴⁴

“Card-based e-money” offers advantages over cash especially when small, exact amounts have to be paid at unstaffed locations such as vending, parking, or ticketing machines. For banks, these services enable cost savings as they contribute to the increasing use of digital transactions in the EU, lowering the use of cash. They also enable cash-like transactions to be executed at a lower cost to the card issuer than credit or debit card payments since they do not require online authorisations.⁴⁵

⁴² Bank of International Settlement paper “Payment systems in Belgium” p. 13. @ <http://www.bis.org/cpss/paysys/BelgiumComp.pdf> (8 January 2014).

⁴³ See more details @ <http://www.tfl.gov.uk/tickets/14836.aspx> (8 January 2014).

⁴⁴ The definition is from Wikipedia @ http://en.wikipedia.org/wiki/Octopus_card (8 January 2014). See more details of the Octopus card @ <http://www.octopus.com.hk/home/en/index.html> (8 January 2014).

⁴⁵ Draft Commission Staff Working Document Accompanying document to the Proposal for a Directive of the European Parliament and of the Council amending Directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions IMPACT ASSESSMENT {COM(2008)627 final} {SEC(2008)2572} p.7 http://ec.europa.eu/internal_market/payments/docs/emoney/sec-2008-2573-impact_ass_en.pdf (8 January 2014).

Furthermore, it was also noted by the above Commission Staff Working Document that “the new types of e-money services have been developed and offer a secure means to purchase and sell goods and services on the Internet. These new types of money services are called “server-based”, in the sense that funds are not stored locally on chip cards, but kept at a “central server” (e.g. at the issuer). The most successful and widely known server-based e-money schemes to date fall essentially into the category of pre-funded personalised online payment schemes, involving the transfer of funds stored on a personalised online account (not including traditional bank deposits). The most well known example of these services is Paypal (which is an Internet third party payment provider). Accounts are typically accessible via Internet browser, email, and/or in some cases via mobile text message (SMS), and allow transfers between private persons and between consumers and merchants.”⁴⁶ It should be pointed out the virtual currency system can be considered as a type of “server-based” system, since the virtual currency is not stored locally on chip cards, but kept at a “central server”—the issuer of the virtual currency.

It should be noted that, although technically, Internet third party payment and virtual currency can be regarded as e-money, it does not necessarily mean that they are e-money caught by the definition of e-money under the EU Directives. Therefore, the author must provide detailed analysis on this regard in part 2, 3, 4, & 5 of this chapter.

2. Can the Electronic Money Directive 2000 and the Electronic Money Directive 2009 apply to Internet third party payment and virtual currency?

2.1 Background of the Electronic Money Directive 2000

⁴⁶ Draft Commission Staff Working Document Accompanying document to the Proposal for a Directive of the European Parliament and of the Council amending Directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions IMPACT ASSESSMENT {COM(2008)627 final} {SEC(2008)2572} p.7 http://ec.europa.eu/internal_market/payments/docs/emoney/sec-2008-2573-impact_ass_en.pdf (8 January 2014).

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

The primary purpose of the Electronic Money Directive 2000 is to create an authorisation and regulation structure for the issue of electronic money. The idea is that this structure will give non-bank institutions a clear right to be issuers (in place of the previously existing legal uncertainty) but only provided that they meet the necessary authorisation criteria and comply with certain rules in relation to the operation of their business. This Directive needs to be understood in conjunction with the parallel Directive 2000/28⁴⁷ which adds electronic money institutions to the definition of “credit institutions” for certain (but not all) purposes.⁴⁸

Overall, it is safe to say that the electronic money market in Europe has not evolved in the way that many predicted at the time the E-Money Directive 2000 was drafted, negotiated and adopted. However, certain market segments have developed significantly in recent years. Most stakeholders agree that more innovative solutions can be expected to emerge in coming years, and that the e-money market is far from reaching its full potential.⁴⁹

Regarding the reason why the whole electronic money market has not taken off as was anticipated, several Northern European countries like Denmark, Estonia and Finland, interviewees pointed out that the widespread use of credit and debit cards (which are almost universally accepted even for payments of small amounts), as well as online banking, meant that there was little demand for an additional electronic payment method like e-money.⁵⁰

When it comes to the regulatory framework of electronic money, the regulatory framework in the UK and elsewhere in the EU has undergone significant change by virtue of the implementation into the domestic law of the UK and the other Member States of the

⁴⁷ Directive 2000/28/EC of the European Parliament and of the Council of 18 September 2000 amending Directive 2000/12/EC relating to the taking up and pursuit of the business of credit institutions. O. J. L 275 of 27.10.2000, p. 37-38.

⁴⁸ Smith, Graham. J. h, “Internet Law and Regulation”, (4th ed., London: Sweet & Maxwell, 2007), p. 903.

⁴⁹ The Evaluation Partnership Limited, “Evaluation of the E-Money Directive (2000/46/EC) Final Report for the DG Internal Market The European Commission”, p. 32 @ http://ec.europa.eu/internal_market/payments/emoney/index_en.htm (8 January 2014).

⁵⁰ The Evaluation Partnership Limited, “Evaluation of the E-Money Directive (2000/46/EC) Final Report for the DG Internal Market The European Commission”, p. 42 @ http://ec.europa.eu/dgs/internal_market/docs/evaluation/e_money_directive.pdf (8 January 2014).

Electronic Money Directive 2000 which was required to be implemented in the UK (and all other EU Member States) by the end of April 2002.⁵¹

2.2 Definition of e-money in the Electronic Money Directive 2000

The Electronic Money Directive 2000 introduces a new concept of an “electronic money institution” which is defined as “an undertaking or any other legal person which issues a means of payment in the form of electronic money”. The concept of electronic money is defined as:

“monetary value as represented by a claim on the issuer which is:

- Stored on an electronic device;
- Issued on receipt of funds of an amount not less in value than the monetary value issued;
- Accepted as means of payment by undertakings other than the issuer.”⁵²

Two of the recitals to the Directive describe electronic money as “a surrogate for coins and notes”.⁵³ This description in the recitals does not form part of the definition, but it is instructive.

2.2.1 The first requirement

⁵¹ Smith, Graham. J. H, “Internet Law and Regulation”, (4th ed., London: Sweet & Maxwell, 2007), p. 902-903.

⁵² Art. 1 (3) (b), Directive 2000/46/EC of the European Parliament and of the Council of 18 September 2000 on the taking up, pursuit of and prudential supervision of the business of electronic money institutions. [2000] L 275/39.

⁵³ Recitals 3 & 7, Directive 2000/46/EC of the European Parliament and of the Council of 18 September 2000 on the taking up, pursuit of and prudential supervision of the business of electronic money institutions. [2000] L 275/39.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

Regarding the first requirement of electronic money in this Directive--stored on an electronic device—the value of the Internet third party payment is definitely stored in the form of digital records in an electronic device, i.e. the Internet third party payment providers' computer systems. Likewise, virtual currency is definitely stored in the form of digital record in electronic device of computer hardware, either in the computer hardware of the virtual currency issuers, or in the computer hardware of the virtual currency users. Thus, the author suggests that both the Internet third party payment and virtual currency meets the first requirement of the Directive.

Referring to the UK Financial Services Authority (FSA) Perimeter Guidance, PERG 3.3 of “Guidance on the scope of the regulated activity of issuing e-money”,⁵⁴ it reaches the same conclusion that Internet third party payment and virtual currency meets the first requirement “storage on an electronic device”.

The Perimeter Guidance states:

“Storage on an electronic device:

The definition of e-money says that for a product to be e-money, it must be stored on an electronic device.

E-money is an electronic payment product. The value is held electronically and payments using the value are made electronically.

⁵⁴ FSA Handbook “Guidance on the scope of the regulated activity of issuing e-money (PERG 3)”, “Elements of the definition of e-money” @ <http://fsahandbook.info/FSA/html/handbook/PERG/3/3> (8 January 2014). This link has been replaced by the link <http://fsahandbook.info/FSA/html/handbook/PERG/3A> (8 January 2014) due to the new FSA Handbook Guidance on the scope of the Electronic Money Regulations 2011 (PERG 3A), however, it is necessary to maintain the original link to show where the original reference came from.

The fact that the device may be magnetic does not stop it being an electronic device for the purpose of the definition of e-money. Thus, for example, value stored on a personal computer does not fall outside the definition merely because it is stored on the computer's magnetic hard disk. Similarly, value stored on a plastic card that uses magnetic stripe technology may also fall within the definition if the value is transferred for spending using electronic technology.”

However, the first requirement of the electronic money definition in the Electronic Money Directive 2000 has raised some debates, and some scholars believe that account-based systems⁵⁵ should not be caught by this requirement. And because Internet third party payment

⁵⁵ Although there are various types and terms of e-money, from a legal point of view, it is important to note that they generally fall into one of two categories. These categories of system will be described as “account-based” system and “cash-based” system. The two categories have their foundations long before the advent of the information technology and the Internet.

During the development of the banking system as we know it at present, two different forms of payment mechanism evolved using the services of precious metal dealers. In the first form, if “A” wanted to make a payment to “B”, then “A” would deposit an amount of precious metal such as gold with a bullion dealer. “A” would make payment to “B” by giving an instruction to the dealer to hold a certain amount of the gold for the benefit of “B”. Payment would be completed when the bullion dealer acknowledged that instruction and agreed to be bound by it (the acknowledgement and agreed to be bound by the instruction issues by “A”, can be compared with and is similar to the authorisation process by today's e-money system operators). “B” could then either go to the bullion dealer and require delivery of the gold that was now held on his behalf, or he could leave it with the dealer and use it as the deposit for a further payment transaction in which “B” was the payer. The system of payments by cheque that is used today is based on this original payment method and it is this payment methodology which underpins those new systems which will be described as “account-based”.

The second form of payment mechanism also involved “A” making a deposit of, say, gold with a bullion dealer. However, in this case “A” was issued with a certificate confirming the amount of gold which was being held on his behalf. A key feature of this certificate was that the bullion dealer accepted that the gold referred to in it would belong to whoever came to be the holder of the certificate (the certificate in today's real economy is banknotes and coins; and in today's e-money system, the certificate is the value stored in electronic device and held by the e-money owner). On this basis, “A” could make payment to “B” simply by transferring the certificate to “B” by whatever form of transfer was prescribed by the certificate. If the certificate was “payable” to the person named on the certificate or their order, then transfer was by means of writing B's name on the certificate as the person to whom “A” was directing payment should be made. If the certificate was payable to “bearer”, then transfer could be effected simply by delivery of the physical certificate. It is this payment methodology which evolved into the banknote and it is the methodology which underpins whose new systems which will be described as “cash-based”, albeit that the certificates we are thinking of consist of electronic impulses rather than pieces of payment.

It is also worth bearing in mind that some systems may inhabit a middle ground between the two approaches.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

and virtual currency are account-based systems, thus, according to this opinion, the Internet third party payment and virtual currency must not be covered by this requirement.

For example, Trystan Tether and Andrew Hallgarth argued⁵⁶ that:

“At a first look, this [the definition of e-money in the Directive] seems to be a wide ranging definition which should catch all the types of scheme currently thought of as electronic cash. However, on a close look it becomes apparent that value issued under a purely account-based system may not necessarily be caught within the definition of ‘electronic money’.”

and

“An account-based system does not have to issue monetary tokens so there is in fact no need for any ‘value’ to be ‘stored on an electronic device’. Even the wording of the recitals may not help since account-based systems are not really ‘a surrogate for coins or notes’, given that they do not involve the free circulation of negotiable instruments; they are rather more of a surrogate for debit card transfers or cheques.”

Partly due to the ambiguity, and more importantly because the biggest network money providers, other than Paypal, were the mobile telecoms, and the regulatory requirement not to engage in non-financial business would have put them out of business,⁵⁷ a second e-money Directive, the Electronic Money Directive 2009 has replaced the Electronic Money Directive

See the above analysis at T. Tether, “Payment Systems for E-Commerce”, C. Reed, I. Walden & L. Edgar (ed.) *Cross-Border Electronic Banking: Challenges and Opportunities* (2nd ed., London Hong Kong: LLP, 2000), p. 182.

⁵⁶ Smith, Graham. J. H. “Internet Law and Regulation”, (4th ed., London: Sweet & Maxwell, 2007), p. 903.

⁵⁷ See Professor Chris Reed, “How to Make Bad Law” in *Modern Law Review* 2010, 73 (6), 903-932.

2000 which hopefully will resolve issues of this kind (see detailed discussion of the Electronic Money Directive 2009 at part 2.3 of this Chapter).

2.2.2 The second requirement

In respect of the second requirement of electronic money in the Electronic Money Directive 2000 – “issued on receipt of funds of an amount not less in value than the monetary value issued”, it may lead to a misunderstanding that, if the electronic money issuer issues 1 Pound e-money, then the money being used to purchase that 1 Pound e-money should be not less than 1 Pound. As a matter of fact, the Electronic Money Directive 2000 doesn’t talk about equal amount, but rather equal value. Thus if World of Warcraft EU gold is always sold at 10 gold=£1, then that’s the value (£0.10 per gold). So if A give B 10 gold for £1, it could be assumed that B is issued for equal value. If A gives B 11 gold, then B is not issued for equal value.

The author suggests that Internet third party payment system meets the second requirement of electronic money in the Electronic Money Directive 2000, because most Internet third party payment providers (to be cautious, the author uses the word “most”, but not the word “all”) issue monetary value on receipt of funds of an amount equivalent to the monetary value. For example, in order to obtain 1 Pound Paypal e-money, a customer has to pay 1 Pound, which is issued on receipt of funds of an amount not less in value than the monetary value issued.

Regarding the virtual currency system, the author suggests that the second requirement of the electronic money in the Electronic Money Directive 2000 only makes sense if the virtual currency is denominated in national currency terms. Thus a PayPal Pound is equal to a Pound sterling, so the rule applies. However, virtual currency is not denominated in national currency terms. For example, an EU World of Warcraft Gold⁵⁸ is not equal to any national

⁵⁸ The World of Warcraft issued both EU World of Warcraft Gold and US World of Warcraft Gold. For the EU customers, the EU WoW Gold is governed by the EU law, according to the EU World of Warcraft Terms of Use stating in the Miscellaneous “This agreement shall be governed by and construed in accordance with the laws

currency, so the rule has nothing to apply to. Thus, the author suggests that virtual currency does not meet the second requirement.

In the UK, the FSA refused to implement this part of the Electronic Money Directive 2000, stating that:

“The definition of e-money says that for a product to be e-money, it must be issued on receipt of funds.”⁵⁹

The FSA did not require “monetary value issued on receipt of funds of an amount not less in value than the monetary value issued”, but merely “issued on receipt of funds”. Therefore, the author suggests that both the Internet third party payment and virtual currency have met this requirement of e-money definition in the UK, although not in the Electronic Money Directive 2000.

2.2.3 The third requirement

When it comes to the third requirement of defining e-money in the Electronic Money Directive 2000, “accepted as means of payment by undertakings other than the issuer” is certainly what Internet third party payment has been designed for. Monetary value issued by the Internet third party payment provider, for example Paypal, is accepted as means of payment by payees other than the issuer—for example, eBay sellers. Likewise, “accepted as means of payment by undertakings other than the issuer” is also what virtual currency has been designed for. Virtual currencies could be accepted by players or avatars as means of payment in relevant virtual worlds. For example, in the World of Warcraft game, the World

applicable in your country of residence.” @ http://eu.blizzard.com/en-gb/company/legal/wow_tou.html (8 January 2014).

⁵⁹ FSA Handbook “Guidance on the scope of the regulated activity of issuing e-money (PERG 3)”, “Elements of the definition of e-money” @ <http://fsahandbook.info/FSA/html/handbook/PERG/3/3> (8 January 2014). This link has been replaced by the link <http://fsahandbook.info/FSA/html/handbook/PERG/3A> (8 January 2014) due to the new FSA Handbook Guidance on the scope of the Electronic Money Regulations 2011 (PERG 3A), however, it is necessary to maintain the original link to show where the original reference came from.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

of Warcraft Gold can not only be accepted as means of payment by the World of Warcraft (the issuer), but can also be accepted as means of payment by players or avatars other than the issuer (the World of Warcraft) in the game platform. Therefore, the author suggests that virtual currency could meet the third requirement of e-money definition in the Electronic Money Directive 2000.

In the UK, the FSA has implemented the third requirement of electronic money in the Electronic Money Directive 2000 by stating that:⁶⁰

“For a product to be e-money, persons other than the issuer must accept it as a means of payment.”

The above statement from the FSA Handbook, PERG 3.3.10 G, means that the e-money holder must be able to use it to buy goods and services from persons other than the issuer.

Furthermore, the Handbook stated that “Thus, for example, electronic value issued by an employer to its employees that can only be used to buy food and drink from the employer in its canteen is not e-money. If monetary value can be spent with third parties, it does not stop being e-money just because the e-money can also be spent with the issuer. This is so even if in practice most of the e-money is spent with the issuer and only a small portion is ever spent with third parties.”

Therefore, in the UK context, it is clear that monetary value issued by Internet third party payment providers should be regarded as falling within the third requirement of the e-money

⁶⁰ FSA Handbook “Guidance on the scope of the regulated activity of issuing e-money (PERG 3)”, “Elements of the definition of e-money” @ <http://fsahandbook.info/FSA/html/handbook/PERG/3/3> (8 January 2014). This link has been replaced by the link <http://fsahandbook.info/FSA/html/handbook/PERG/3A> (8 January 2014) due to the new FSA Handbook Guidance on the scope of the Electronic Money Regulations 2011 (PERG 3A), however, it is necessary to maintain the original link to show where the original reference came from.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

definition according to the above FSA explanation. Meanwhile, virtual currency should be also treated as falling within the third requirement of e-money definition, because virtual currency holders are able to use the virtual currency to buy goods and services from persons other than the issuer. For example, an EU World of Warcraft Gold player is able to use the Gold to buy virtual goods and services from another EU World of Warcraft player in the context of the game.

In sum, from what has been analysed above, Internet third party payment could meet all three e-money requirements of the Electronic Money Directive 2000 so that it should be considered as e-money accordingly. However, virtual currency could meet the first and the third requirements of the definition of electronic money, but it could not meet the second requirement, therefore, we can draw the conclusion that virtual currency is not covered by the definition of electronic money in the EU Electronic Money Directive 2000, and therefore, is not subject to its regulation.

In the UK scenario, because both Internet third party payment and virtual currency could meet all the requirements stipulated by the FSA to implement the Electronic Money Directive 2000, therefore, both Internet third party payment and virtual currency should be regarded as e-money by definition. In the UK, most of the rules and guidance on e-money are contained in a specialist sourcebook within the “FSA Handbook of Rules and Guidance”.⁶¹ Also a “Perimeter Guidance”⁶² was released by the FSA to help people to understand whether any of their proposed activities involve issuing e-money or not and to help somebody using a particular prepaid electronic payments mechanism to understand its status under the Financial Services and Markets Act 2000 (FSMA).⁶³

⁶¹ The full text of the FSA specialist sourcebook on electronic money was available @ <http://fsahandbook.info/FSA/html/handbook/PERG/3> (8 January 2014) until 8 January 2014 which is the last day that this material is in force. Although the full text of this sourcebook has been replaced, the author believes that it is still necessary to maintain the link as a reference.

⁶² Financial Services Authority “Electronic money: Perimeter guidance” (February 2003). The full text of the document is available @ <http://www.fsa.gov.uk/Pages/Library/Policy/CP/2003/172.shtml> (8 January 2014).

⁶³ In deciding whether a particular scheme involves e-money or not, the FSA takes into account the substance of the scheme, in particular it is necessary for the FSA to consider whether the scheme involves:

- the issue of prepaid electronic monetary value that the holder can spend with third parties; or
- the provision by the issuer of some other sort of service.

2.3 Definition of e-money in the Electronic Money Directive 2009

Just like any other Directives, the European Commission has carefully evaluated the effects of the Electronic Money Directive 2000. In 2007, a modern, coherent and new legal framework for payment services (the Payment Services Directive 2007/64/EC which is discussed in part 3 of this Chapter) has been established at the European Community level on payment services in the internal market, it urged the European commission to promote the emergence of a true single market for electronic money services in the European Union.⁶⁴ Therefore, a new Directive, the Electronic Money Directive 2009 has replaced the Electronic Money Directive 2000, which aims to.⁶⁵

- Enable new, innovative and secure electronic money services to be designed;
- Provide market access to new companies;
- Foster real and effective competition between all market participants.

Article 2 of the Electronic Money Directive 2009 states the definition of electronic money:

“Electronic money means electronically, including magnetically, stored monetary value as represented by a claim on the issuer which is issued on receipt of funds for the purpose of making payment transactions as defined in point 5 of Article 4 of Directive

Financial Services Authority “Electronic money: Perimeter guidance” (February 2003), p. 3. The full text of the document is available @ <http://www.fsa.gov.uk/Pages/Library/Policy/CP/2003/172.shtml> (8 January 2014).

⁶⁴ This idea was inspired by the sentence “The general objective of the review of the EMD is to promote the emergence of a true single market for electronic money services in Europe” in European Commission SEC(2008) 2572 SEC(2008)2573, “Impact Assessment accompanying the Draft Proposal for a Directive of the European Parliament and of the Council amending Directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions Summary of the Impact Assessment”, p. 5. Available @ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SEC:2008:2572:FIN:EN:PDF> (8 January 2014).

⁶⁵ See more details in the European Commission Official Website @ http://ec.europa.eu/internal_market/payments/emoney/index_en.htm (8 January 2014).

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

2007/64/EC, and which is accepted by a natural or legal person other than the electronic money issuer;”

Point 5 of Article 4 of the Payment Services Directive 2007/64/EC states:

“ ‘payment transaction’ means an act, initiated by the payer or by the payee, of placing, transferring or withdrawing funds, irrespective of any underlying obligations between the payer and the payee;”

The definition of electronic money in the Electronic Money Directive 2009 can be broken down into three pieces. Namely, “electronic money” is monetary value as represented by a claim on the issuer:

- electronically (including magnetically) stored;
- issued on receipt of funds for the purpose of making payment transactions;
- accepted by a natural or legal person other than the electronic money issuer.

Comparing with the previous definition of “electronic money” in the Electronic Money Directive 2000, this definition is clearer and broader. Because in Internet third party payment system, value is electronically stored in computer systems; and it is issued on receipt of funds (in the case of Paypal, the funds could be GB Pounds or Euros or other currencies, since Paypal supports multiple currencies transactions) for the purpose of making payment transactions, and also accepted by a natural or legal person other than the electronic money issuer. Therefore, Internet third party payment could be covered by the new definition of electronic money in the Electronic Money Directive 2009.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

Likewise, because virtual currency is electronically stored in computer systems; and virtual currency is also issued on receipt of funds (paid by virtual currency buyers to virtual currency issuers) for the purpose of making payment transactions between virtual currency holders and virtual currency issuers, or between different virtual currency holders. Therefore, the author suggests that virtual currency can also be covered by this new definition of “electronic money” in the Electronic Money Directive 2009.

Regarding the implementation of the Electronic Money Directive 2009, article 22 of the Directive requires “Member States shall adopt and publish, not later than 30 April 2011, the laws, regulations and administrative provisions necessary to comply with this Directive.” In the UK, the competent authority FSA has published the “Electronic Money Regulations 2011/99” which has been in force from 30 April 2011. It defines “electronic money” as:⁶⁶

“electronic money” means electronically (including magnetically) stored monetary value as represented by a claim on the electronic money issuer which—

- (a) is issued on receipt of funds for the purpose of making payment transactions;
- (b) is accepted by a person other than the electronic money issuer; and
- (c) is not excluded by regulation 3;

Regulation 3 “Electronic money: exclusions” states:

For the purposes of these Regulations electronic money does not include—

⁶⁶ Part 1 Introductory Provisions, 2- Interpretation of the “Electronic Money Regulations 2011/99”. Available @ <http://www.legislation.gov.uk/ukxi/2011/99/part/1/made> (8 January 2014).

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

- (a) monetary value stored on instruments that can be used to acquire goods or services only- (i) in or on the electronic money issuer's premises; or (ii) under a commercial agreement with the electronic money issuer, either within a limited network of service providers or for a limited range of goods or services;
- (b) monetary value that is used to make payment transactions executed by means of any telecommunication, digital or IT device, where the goods or services purchased are delivered to and are to be used through a telecommunication, digital or IT device, provided that the telecommunication, digital or IT operator does not act only as an intermediary between the payment service user and the supplier of the goods and services.

The above Interpretation of the “Electronic Money Regulations 2011/99” and its Regulation 3 “Electronic money: exclusions” has included Internet third party payment as electronic money in this Regulations, and it also included virtual currency in the definition of electronic money in this Regulations, because:

- Internet third party payment system (for example: Paypal) electronically stored monetary value which is on receipt of funds for the purpose of making payment transactions; and is accepted by a person other than the electronic money issuer; and it is not excluded by regulation 3, because Paypal can be used not only in or on the Paypal premise, but also in a huge number of premises in the UK and all over the world.
- Virtual currency electronically stored monetary value which is on receipt of funds for the purpose of making payment transactions; and is accepted by a person other than the electronic money issuer. Furthermore, monetary value of virtual currency stored on instruments that can be used to acquire goods or services not only in or on the electronic money issuer's premises, but also in or on other premises. For example, in the World of Warcraft system, the World of Warcraft Gold EU can be used to acquire

goods or services not only in the World of Warcraft platform, but it can also be used as a trading object in Internet platforms such as Internet Game Entertainment (IGE).⁶⁷

- Also, there is a strong argument that the above “Point (b) of the Regulation 3 Electronic Money: Exclusion” excludes virtual currencies. Because all things bought in the virtual currency are consumed/used via the digital device (user’s computer) and the operator does more than just act as intermediary, because it defines and controls the nature of things which can be traded (except in Second Life) and to some extent controls the use made of them.

2.4 Selective key regulatory aspects of the Electronic Money Directive 2000 and the Electronic Money Directive 2009 on Internet third party payment and virtual currency

2.4.1 From “institutional regulation” approach to “functional regulation” approach

The Electronic Money Directive 2000 adopted an “institutional regulation” approach. The institutional regulation approach means that the Directive created a special legal framework for electronic money institutions (it should be noted that although the term “institution” is retained, all that is regulated is the activity of issuing e-money). This legal framework restricted the electronic money institutions’ activities to the issuance of electronic money and the provision of closely related financial and non-financial services, such as the administering of e-money and the issuing and administering of other means of payment. This implied that activities such as mobile telecommunications services or retailing could not be performed by electronic money institutions. Companies engaged in these businesses and willing to issue electronic money therefore had to split up their activities in two separate entities. Granting any form of credit was also an excluded activity.⁶⁸

⁶⁷ See buy and sell the World of Warcraft Gold EU @ http://www.ige.com/woweu/gold/worldofwarcrafteu_en.html (8 January 2014).

⁶⁸ Draft Commission Staff Working Document Accompanying document to the Proposal for a Directive of the European Parliament and of the Council amending Directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions IMPACT ASSESSMENT {COM(2008)627 final} {SEC(2008)2572} p.11 http://ec.europa.eu/internal_market/payments/docs/emoney/sec-2008-2573-impact_ass_en.pdf (8 January 2014).

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

The Electronic Money Directive 2009 adopted a “functional regulation”. Functional regulation sometimes is also named and referred as “activities regulation”. The “functional regulation” approach means that an electronic money institution can now carry on unrelated activities, whereas under the Electronic Money Directive 2000, it would have been restricted to issuing e-money and closely related services. So, for example, a mobile operator can now provide both network services and prepaid accounts,⁶⁹ and its activities in issuing e-money fall under the regulation of the Electronic Money Directive 2009.

When it comes to Internet third party payment providers and virtual currency issuers, the underlying meaning of the change from “institutional regulation” to “functional regulation” is different. For the Internet third party payment providers, e.g. Paypal, both Electronic Money Directives could cover the Internet third party payment providers, because the Internet third party payment providers were “electronic money institutions” under the special legal framework of the Electronic Money Directive 2000, and are also undertaking electronic money activities which is under the regulation of the Electronic Money Directive 2009 (it should be noted that 2009 Directive replaces the 2000 Directive, so only the new regime is in operation now). PayPal became a bank so it could provide credit and is subject to credit institution regulations.

However, for virtual currency issuers, e.g. the World of Warcraft Gold EU issuer, was not regulated by the Electronic Money Directive 2000, because they were not the “electronic money institutions” defined in the Directive, the issuance of the World of Warcraft Gold EU is merely a product among many other Internet games services provided by the Blizzard Entertainment EU.⁷⁰ Furthermore, in theory, the Blizzard Entertainment EU would have been in breach of the Electronic Money Directive 2000 if it had issued the World of Warcraft Gold in the EU, by providing other unrelated services at the same time.⁷¹ If the Blizzard Entertainment EU wishes to carry on engaging such a hybrid business under the Electronic

⁶⁹ Computer and Telecommunications Law Review 2011 (5) p.117- 118.

⁷⁰ <http://eu.blizzard.com/en-gb/> (8 January 2014).

⁷¹ Regarding the issue that where the gold was actually issued, the author has not found concrete evidence which explicitly stating the place of the issuance, but it is likely that the issuance takes place on the World of Warcraft servers, which are in the US.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

Money Directive 2000, it has to establish an associated company to issue the World of Warcraft Gold EU. After the adoption of the Electronic Money Directive 2009, virtual currency issuers, such as Blizzard Entertainment EU is legally allowed to engage the hybrid business which combines the issuance of virtual currency and many other Internet games activities.

The choice of “institutional regulation” approach and “functional regulation” approach is vitally important not only for the EU but also for China. The author will further discuss the theory of different regulatory approaches, the lessons that China may learn from the EU/UK experience and China’s choice in chapter 7 of the thesis.

2.4.2 Capital requirements

2.4.2.1 Initial capital requirements

The Electronic Money Directive 2000 set up the initial capital requirement of EUR 1 million for electronic money institutions which was deemed by a number of stakeholders to be too high and disproportionate with regard to the risk of the service. This high initial capital was an obstacle for smaller firms wishing to apply for an electronic money institution license.⁷² Meanwhile, the EUR 1 million in the Electronic Money Directive 2000 is much higher in comparison with the equivalent requirement for payment institutions under the Payment Services Directive 2007, which vary from EUR 20,000 for money remittance, to EUR 50,000 for mobile/digital payments, and up to 125,000 for other payment services.⁷³ Thus, article 4 of the Electronic Money Directive 2009 reduced the initial capital requirement of an electronic money institution from EUR 1 million to EUR 350.000.

⁷² Draft Commission Staff Working Document Accompanying document to the Proposal for a Directive of the European Parliament and of the Council amending Directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions IMPACT ASSESSMENT {COM(2008)627 final} {SEC(2008)2572} p.15 http://ec.europa.eu/internal_market/payments/docs/emoney/sec-2008-2573-impact_ass_en.pdf (8 January 2014).

⁷³ Art. 4, 6 & Annex of Directive 2007/64/EC of the European Parliament and of the Council of 13 November 2007 on payment services in the internal market amending Directives 97/7/EC, 2002/65/EC, 2005/60/EC and 2006/48/EC and repealing Directive 97/5/EC Text with EEA relevance.

The implication of the reduction of the initial capital requirement for Internet third party payment providers and virtual currency issuers is obvious and it is particularly beneficial for smaller players. More and more potential players will be encouraged and be able to participate in the market.

2.4.2.1 Ongoing capital requirements/own funds

Under the Electronic Money Directive 2000 (article 4), on top of initial capital requirements, electronic money institutions are also required to hold own funds which, at all times, should not be lower than the maximum between initial capital requirements (EUR 1 million) and a ratio of 2% of the issued electronic money. The 2% own funds requirement does not in itself appear to have given rise to major difficulties for authorised electronic money institutions (although its combination with other aspects of the Directive, e.g., initial capital requirements, limitation of investments, restrictions of activities, have led to complaint that the overall regime is excessive).⁷⁴ Also because electronic money institutions with e-money issued below EUR 5 million falls into the Waiver category of the Directive (article 8) which covers electronic money institutions generate a total amount of financial liabilities related to outstanding electronic money that normally does not exceed EUR 5 million and never exceeds EUR 6 million. Therefore, it can be calculated that electronic money institutions with e-money issued between EUR 5 million and EUR 50 million have the same capital requirement of EUR 1 million, representing a capital requirement of respectively 20% or 2% capital.⁷⁵ For electronic money institutions with e-money issued above EUR 50 million, there is no limit for the ongoing capital requirements which is equivalent to the amount of the outstanding e-money issued times 2%.

⁷⁴ Draft Commission Staff Working Document Accompanying document to the Proposal for a Directive of the European Parliament and of the Council amending Directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions IMPACT ASSESSMENT {COM(2008)627 final} {SEC(2008)2572} p.15 http://ec.europa.eu/internal_market/payments/docs/emoney/sec-2008-2573-impact_ass_en.pdf (8 January 2014).

⁷⁵ Draft Commission Staff Working Document Accompanying document to the Proposal for a Directive of the European Parliament and of the Council amending Directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions IMPACT ASSESSMENT {COM(2008)627 final} {SEC(2008)2572} p.15 http://ec.europa.eu/internal_market/payments/docs/emoney/sec-2008-2573-impact_ass_en.pdf (8 January 2014).

Article 5 of the Electronic Money Directive 2009 insists that the ongoing own funds of an electronic money institution shall not fall below the initial capital requirements (EUR 350,000) or 2% of the average outstanding electronic money whichever the higher. And also because the waiver article (article 9) of the Directive stipulates that “the total business activities generate an average outstanding electronic money that do not exceed a limit set by the Member State but that, in any event, amounts to no more than EUR 5,000,000” may enjoy the exemptions of the application of all or part of the procedures and conditions set out in the Directive. Therefore, it can be calculated that electronic money institutions with e-money issued between EUR 5 million and EUR 17.5 million have the same capital requirement of EUR 350,000, representing a capital requirement of respectively 7% or 2% capital. For electronic money institutions with e-money issued above EUR 17.5 million, there is no limit for the ongoing capital requirements which is equivalent to the amount of the outstanding e-money issued times 2%.

The reduction of the initial capital requirements as well as the lowering ongoing capital requirement may not have a significant impact on established international e-money giants such as Paypal and Neteller which processes billions of Dollars worth of transactions each year,⁷⁶ but it will make the electronic money market more accessible for small or medium-sized Internet third party payment providers and virtual currency issuers.

2.4.3 Limitations of investments and safeguarding rules

In terms of investments limitations and safeguarding rules, both the old and new Directives adopted prudential regulatory approaches. Compared with the old Directive, the new Directive is more tolerant and is willing to take a little bit more risk.

Under article 5 (limitations of investments) of the Electronic Money Directive 2000 and in conjunction with article 43 (risk weightings) & article 44 (weighting of claims for regional

⁷⁶ About Neteller @ <http://www.neteller.com/about/> (8 January 2014).

governments or local authorities of the Member States) of the Directive 2000/12/EC,⁷⁷ electronic money institutions are required to have investments which at least match their financial liabilities related to outstanding electronic money. The list of eligible investments is limited to the most liquid assets and fulfils an important function by protecting the float of electronic money issued,⁷⁸ for example, “cash in hand and equivalent items” and “asset items constituting claims on the European Communities”.

Under article 7 (safeguarding rules) the Electronic Money Directive 2009 and in conjunction with Annex 1 (calculating capital requirements for position risk) of the Directive 2006/49/EC⁷⁹, electronic money institutions are entitled to engage secure and low-risk activities and the specific risk capital charge must not be higher than 1.6%.

2.4.4 Issuance and redeemability

Article 3 of the Electronic Money Directive 2000 states that:

- 1. A bearer of electronic money may, during the period of validity, ask the issuer to redeem it at par value in coins and bank notes or by a transfer to an account free of charges other than those strictly necessary to carry out that operation.
- 2. The contract between the issuer and the bearer shall clearly state the conditions of redemption.
- 3. The contract may stipulate a minimum threshold for redemption. The threshold may not exceed EUR 10.

⁷⁷ Directive 2000/12/EC of the European Parliament and of the Council of 20 March 2000 relating to the taking up and pursuit of the business of credit institutions. O. J. L 126/1.

⁷⁸ Draft Commission Staff Working Document Accompanying document to the Proposal for a Directive of the European Parliament and of the Council amending Directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions IMPACT ASSESSMENT {COM(2008)627 final} {SEC(2008)2572} p.16 http://ec.europa.eu/internal_market/payments/docs/emoney/sec-2008-2573-impact_ass_en.pdf (8 January 2014).

⁷⁹ Directive 2006/49/EC of the European Parliament and of the Council of 14 June 2006 on the capital adequacy of investment firms and credit institutions (recast).

Redeemability was inserted in the Electronic Money Directive 2000 for consumer protection reasons, to ensure that customers can get at all time their money back. Other important factors were monetary policy concerns, as redeemability at par value ensures control of the money supply in the EU.⁸⁰

Redeemability appears to pose a problem for mobile network operators and electronic vouchers' issuers. Mobile operators are unable to split 'ex ante' customers' prepaid funds for mobile services and electronic money. The only way to apply this provision is to apply it to all the money stored on the prepaid card, whether or not it is used for prepaid payment services regulated under the Electronic Money Directive 2000 or for telecom services (voice calling, SMS and other telecom services) outside the scope of the Electronic Money Directive 2000. This is one of the main reasons why mobile network operators' products remain outside the Electronic Money Directive 2000. It is also unclear how funds which are never redeemed should be treated.⁸¹

In order to resolve those issues, article 11 "Issuance and redeemability" of the Electronic Money Directive 2009 adds some sophistication on the specific requirements of the redemption contracts by stating:

"1. Member States shall ensure that electronic money issuers issue electronic money at par value on the receipt of funds.

⁸⁰ Draft Commission Staff Working Document Accompanying document to the Proposal for a Directive of the European Parliament and of the Council amending Directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions IMPACT ASSESSMENT {COM(2008)627 final} {SEC(2008)2572} p.14 http://ec.europa.eu/internal_market/payments/docs/emoney/sec-2008-2573-impact_ass_en.pdf (8 January 2014).

⁸¹ Draft Commission Staff Working Document Accompanying document to the Proposal for a Directive of the European Parliament and of the Council amending Directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions IMPACT ASSESSMENT {COM(2008)627 final} {SEC(2008)2572} p.14 http://ec.europa.eu/internal_market/payments/docs/emoney/sec-2008-2573-impact_ass_en.pdf (8 January 2014).

2. Member States shall ensure that, upon request by the electronic money holder, electronic money issuers redeem, at any moment and at par value, the monetary value of the electronic money held.

3. The contract between the electronic money issuer and the electronic money holder shall clearly and prominently state the conditions of redemption, including any fees relating thereto, and the electronic money holder shall be informed of those conditions before being bound by any contract or offer.

4. Redemption may be subject to a fee only if stated in the contract in accordance with paragraph 3 and only in any of the following cases: (a) where redemption is requested before the termination of the contract; (b) where the contract provides for a termination date and the electronic money holder terminates the contract before that date; or (c) where redemption is requested more than one year after the date of termination of the contract.

Any such fee shall be proportionate and commensurate with the actual costs incurred by the electronic money issuer.

5. Where redemption is requested before the termination of the contract, the electronic money holder may request redemption of the electronic money in whole or in part.

6. Where redemption is requested by the electronic money holder on or up to one year after the date of the termination of the contract: (a) the total monetary value of the electronic money held shall be redeemed; or (b) where the electronic money institution carries out one or more of the activities listed in Article 6(1)(e) and it is unknown in advance what proportion of funds is to be used as electronic money, all funds requested by the electronic money holder shall be redeemed.

7. Notwithstanding paragraphs 4, 5 and 6, redemption rights of a person, other than a consumer, who accepts electronic money shall be subject to the contractual agreement between the electronic money issuer and that person.”

However, the problem raised by mobile network operators still cannot be resolved, because mobile network operators are still unable to split ‘ex ante’ customers’ prepaid funds for

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

mobile services and electronic money. If a customer pays £10 to a mobile network operator, is that a pre-paid fund for mobile services or is that e-money? The above article in the Electronic Money Directive 2009 does not make it clear. Thus, at this point in time, the problem can only be resolved by contract terms between the consumer and the mobile network operator.

A further thought is that, although in theory, it is not possible to distinguish pre-paid funds for mobile services from e-money according to both Electronic Money Directives, in practice, it may not be necessary to do so, because most consumers simply spend them together regardless their legal natures.

When it comes to the UK scenario, it is clear that Part 5 (points 39-46) “issuance and redeemability” of electronic money of UK Electronic Money Regulations 2011/99 states:⁸²has largely implemented the EU Electronic Money Directive 2009 at this point of “issuance and redeemability”, although there are a number of minor dissimilarities, for example, the UK Electronic Money Regulations 2011 stipulates “an electronic money issuer is not required under regulation 39(b) to redeem the monetary value of electronic money where the electronic money holder makes a request for redemption more than six years after the date of termination of the contract”.

⁸² The Electronic Money Regulations 2011 @ <http://www.legislation.gov.uk/uksi/2011/99/contents/made> (8 January 2014).

3. Can the EU Payment Services Directive 2007⁸³ apply to Internet third party payment and virtual currency?

3.1 Background of the Payment Services Directive 2007

In December 2005, the European Commission proposed the Directive with the aim of achieving a single market in retail payment services, to give providers fair and open access to payments markets and increase protection for consumers. The Directive, which was adopted by the European Council and the European Parliament in November 2007, aims at establishing a modern and comprehensive set of rules applicable to all payment services in the European Union. The target is to make cross-border payments as easy, efficient and secure as ‘national’ payments within a Member State. It also seeks to improve competition by opening up payment markets to new entrants, thus fostering great efficiency and cost-reduction. At the same time the Directive provides the necessary legal platform for the Single Euro Payments Area.⁸⁴ The UK has implemented the EU Payment Services Directive 2007 through the Payment Services Regulations 2009.⁸⁵

3.2 Scope of the Payment Services Directive 2007 and Internet third party payment and virtual currency

Article 2 “Scope” of the Payment Services Directive 2007 states,

“This Directive shall apply to payment services provided within the Community. However, with the exception of Article 73, Titles III and IV shall apply only where both the payer’s payment service provider and the payee’s payment service provider are,

⁸³ Directive 2007/64/EC of the European Parliament and of the council of 13 November 2007 on payment services in the internal market amending Directives 97/7/EC, 2002/65/EC, 2005/60/EC and 2006/48/EC and repealing Directive 97/5/EC Text with EEA relevance. OJ L 319, p. 0001-0036.5 December 2007.

⁸⁴ Official documents of the Payment Services Directive 2007 are available @ http://ec.europa.eu/internal_market/payments/framework/index_en.htm (8 January 2014).

⁸⁵ See full text of the UK Payment Services Regulations 2009 @ <http://www.legislation.gov.uk/ukxi/2009/209/contents/made> (8 January 2014).

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

or the sole payment service provider in the payment transaction is, located in the Community.”

It is unclear whether this Directive would cover Internet third party payment providers and virtual currency merely from the wording of article 2, thus it is necessary to understand the negative scope of this Directive. Would (k) and (l) of article 3 “negative scope” cover the Internet third party payment providers and virtual currency? If yes, then Internet third party payment providers and virtual currency is outside the scope of this Directive.

In Article 3 “Negative scope” point (k) states:

(k) Services based on instruments that can be used to acquire goods or services only in the premises used by the issuer or under a commercial agreement with the issuer either within a limited network of service providers or for a limited range of goods or services;

The author suggests that point (k) cannot apply to Internet third party payment providers or virtual currency because “premises” contains the meaning of “physical location”. For example, dinner tickets issued by a university refectory can only acquire goods and services only in the university refectory. In the context of virtual currency, there is no such “physical location” exists.

In Article 3 “Negative scope”, point (l) states:

(l) payment transactions executed by means of any telecommunication, digital or IT device, where the goods or services purchased are delivered to and are to be used through a telecommunication, digital or IT device, provided that the telecommunication, digital or IT device, provided that the telecommunication, digital or IT operator does

not act only as an intermediary between the payment service user and the supplier of the goods and services;

The authors suggest that point (l) cannot apply to Internet third party payment providers and virtual currency either, because although both the Internet third party payment providers and virtual currency are executed by means of telecommunication and Internet technologies, where the goods and services purchased are also delivered to and are to be used through the Internet, Internet third party payment providers and virtual currency operators do act only as intermediaries between payers and payees, and between virtual currency users (the payment service user) and the virtual currency operators themselves (the supplier of the goods and services). Therefore, the author suggests that both Internet third party payment and virtual currency are within the scope of the EU Payment Services Directive 2007 and should be regulated by this Directive.

3.3 Obligations placed by the Payment Services Directive 2007 on Internet third party payment providers and virtual currency operators

3.3.1 Initial capital requirements, own funds requirements and safeguarding rules

Article 6 of the Payment Services Directive 2007 set up three standards of initial capital requirements for payment institutions in accordance with the specific payment services they engage. The three standards are EUR 20,000, EUR 50,000, and EUR 125,000. The EUR 20,000 standard is applicable to “money remittance” payment services.⁸⁶ The EUR 50,000 is applicable to “execution of payment transactions where the consent of the payer to execute a payment transaction is given by means of any telecommunication, digital or IT device and the payment is made to the telecommunications, IT system or network operator, acting only as an intermediary between the payment service user and the supplier of the goods and services.”⁸⁷

⁸⁶ See point 6 of the Annex of the Payment Services Directive 2007.

⁸⁷ See point 7 of the Annex of the Payment Services Directive 2007.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

The EUR 125,000 is applicable to other payment services listed in point 1-5 of the Annex in the Payment Services Directive 2007.⁸⁸

The author suggests that Internet third party payment and virtual currency fall into point 7 of the Annex in the Payment Services Directive 2007, because their payment transactions are executed by means of telecommunications, digital and IT devices, and the telecommunications, IT system and network operators acting only as an intermediary between the payment service user and the supplier of the goods and services. Thus, the EUR 50,000 initial capital requirement is applicable to them. The standard EUR 50,000 is significantly lower than the initial capital requirement in article 4 of the Electronic Money Directive 2009 which is EUR 350,000. In the situation that both the Electronic Money Directive 2009 and the Payment Services Directive 2007 are applicable to both the Internet third party payment providers and virtual currency operators, the author argues that the higher standard EUR 350,000 stipulated in the Electronic Money Directive 2009 should apply. The reason can be explained with an analogic example. If a speeding driver should be fined £50 according to the national law, he/she should be fined £100 according to the local law, and he/she is obliged to pay the fine once, how much fine will he/she get eventually if both laws are applicable to him/her? It will be the £100 fine.

When it comes to own funds requirements, article 7 of the Payment Services Directive 2007 provides Method A, B and C to stipulate different measures of calculating the specific own funds requirements for different types of payment institutions. Article 5 (3) of the Electronic

⁸⁸ Point 1-5 of the Annex of the Payment Services Directive 2007 states:

1. Services enabling cash to be placed on a payment account as well as all the operations required for operating a payment account.
2. Services enabling cash withdrawals from a payment account as well as all the operations required for operating a payment account.
3. Execution of payment transactions, including transfers of funds on a payment account with the user's payment service provider or with another payment service provider:
 - execution of direct debits, including one-off direct debits,
 - execution of payment transactions through a payment card or a similar device,
 - execution of credit transfers, including standing orders.
4. Execution of payment transactions where the funds are covered by a credit line for a payment service user:
 - execution of direct debits, including one-off direct debits,
 - execution of payment transactions through a payment card or a similar device,
 - execution of credit transfers, including standing orders.
5. Issuing and/or acquiring of payment instruments.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

Money Directive 2009 has provided its own method -- Method D for electronic money institutions (see part 2.4.2 of this chapter for the specific calculation of the own funds). Which of those four calculation methods should govern the calculation of own funds requirement for Internet third party payment providers and virtual currency operators is determined which calculation method has the highest standard, and the reason is the same as the reason given in the previous paragraph.

In terms of the safeguarding rules in the Payment Services Directive 2007, article 9 of the Directive only provide a general and loose guideline for all payment institutions to safeguard the received funds. Referring to electronic money institutions, it is still subject to the stricter regulation in the Electronic Money Directive 2009.

In sum, comparing the Payment Services Directive 2007 with the Electronic Money Directive 2009, it is fair to suggest that the Payment Services Directive 2007 is a “general” law for all payment institutions in the EU whose aim is to establish a cross-border legal framework to facilitate various of payment institutions in a single EU market. Relatively speaking, the Electronic Money Directive 2009 is a “special” law of the Payment Services Directive 2007. It provides regulatory rules for electronic money institutions, and it covers Internet third party payment providers and virtual currency operators more specifically.

4. Other relevant laws apart from the Electronic Money

Directives 2000/2009 and the Payment Services Directive 2007

Apart from the Electronic Money Directive 2000 and 2009, and the Payment Services Directive 2007, there are some other e-money related Directives which are also relevant to Internet third party payment and virtual currency in the EU level and in the UK.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

Directive 2000/28⁸⁹ amends the definition of “credit institution” contained in Art. 1(1) of Directive 2000/12⁹⁰ so as to include an electronic money institution as defined in Directive 2000/46⁹¹. This has the effect of conferring on issuers of electronic money who are appropriately authorised in any one member state the same right to operate throughout the single market as Directive 2000/12 confers on other credit institutions, in effect a single “passport”. This is designed to foster the cross-border provision of electronic money services. The *quid pro quo* is that Directive 2000/46 subjects them to a degree of regulation, albeit less than is applicable to institutions which provide the full range of banking services.⁹²

Both Directive 2000/12 and Directive 2000/46 have been implemented in the United Kingdom by way of the Electronic Money Regulations (Miscellaneous Amendments) Regulations 2002⁹³ and the Financial Services and Markets Act 2000 (Regulated Activities) (Amendment) Order 2002.⁹⁴ (Internet third party payment and virtual currency [issued in the UK] should be regulated by these two Regulations, since it falls into the definition of e-money in the UK regulatory framework.) The UK government’s stated intention was to implement the Electronic Money Institutions Directive 2000 with “as light a touch” as was consistent with its obligations under the Directive. The primary aim was to strike the right balance between competition, consumer protection and financial stability, so as to not unduly

⁸⁹ Directive 2000/28/EC of the European Parliament and of the Council of 18 September 2000 amending Directive 2000/12/EC relating to the taking up and pursuit of the business of credit institutions. [2000] O. J. L275/37.

⁹⁰ Directive 2000/12/EC of the European Parliament and of the Council of 20 March 2000 relating to the taking up and pursuit of the business of credit institutions. [2000] O. J. L 126/1.

⁹¹ Directive 2000/46/EC of the European Parliament and of the Council of 18 September 2000 on the taking up, pursuit of and prudential supervision of the business of electronic money institutions. [2000] L 275/39.

⁹² In the UK, as it has been mentioned before, e-money regulation is undertaken by the FSA. In December 2001 the FSA published a Consultation Paper (CP117) on the Regulation of Electronic Money Issuers. That resulted in a specialist sourcebook on electronic money (ELM) being included in the FSA’s Handbook of Rules and Guidance. Further Guidance has been put on hold by the FSA pursuing the conclusion of the EU’s consultation on a “New Legal Framework for Payment; the Internal Market” COM (2003) 718, December 2, 2003. It should be noted that the UK government has decided that the Financial Services Compensation Scheme will not apply to e-money issuers. Consequently, customers have no access to compensation should an e-money issuer become insolvent (Therefore, customers in the UK also have no access to compensation should a virtual currency issuer become insolvent). E-money issuers are, however, included within the scope of the Financial Ombudsman Service. See Brindle, Michael & Cox, Raymond (ed.) *Law of Bank Payments*, (3rd ed., London: Sweet & Maxwell, 2004) p. 317, footnote 37.

⁹³ SI 2002/765. See full text of the Regulations @ <http://www.opsi.gov.uk/si/si2002/20020765.htm> (8 January 2014).

⁹⁴ SI 2002/682. See full text of the Order @ <http://www.opsi.gov.uk/si/si2002/20020682.htm> (8 January 2014).

burden existing electronic money issuers and encourage new entrants to the market (both from the banking sector and elsewhere).⁹⁵

Additionally, electronic money institutions are also subjected to the money laundering regime set out in Directive 91/308,⁹⁶ as well as certain parts of Directive 2000/12.⁹⁷

5. Conclusion

In this chapter, the author has examined the EU Electronic Money Directives, the Payment Services Directive 2007 and UK Electronic Money Regulations. Although there is no specific regulations on Internet third party payment virtual currency in the EU and UK level, two Electronic Money Directives and the Payment Services Directive 2007 should cover the regulation of Internet third party payment providers and virtual currency. The Electronic Money Directive 2009 can be regarded as a “special” law of the Payment Services Directive 2007 which provide practical and specific rules for Internet third party payment providers and virtual currency operators as well as electronic money institutions.

It is common perception that lawyers and legal academics tend to make a judgment whether a law is a good law or a bad one. The author would like to cite a proverb by the unique Hugging Saint Amma: Sri Mata Amritanandamayi, “There is nothing in this world that hasn’t nourished our growth in one way or another”. Similarly, in the legal field, “There is no law in this world that hasn’t nourished our growth understanding of the law in one way or another”. Thus, it is not necessary to distinguish or identify a so called “good law” or “bad law”. Every

⁹⁵ See the Treasury’s Consultation Document, Implementation of the Electronic Money Directive (October 2001), @ <http://www.hm-treasury.gov.uk/6288.htm> (8 January 2014). Also see a response to the consultation of Implementation of the Electronic Money Directive (March 2002), @ http://www.hm-treasury.gov.uk/d/emoney_response.pdf (8 January 2014)

⁹⁶ Council Directive 91/308/EEC of 10 June 1991 on prevention of the use of the financial system for the purpose of money laundering [1991] O. J. L166/77. This Directive was amended by Directive 2001/97 ([2001] O. J. L344/76) and has been implemented in the UK by the Money Laundering Regulations 2003 (SI 2003/3075).

⁹⁷ Art. 2 (1), Directive 2000/46/EC of the European Parliament and of the Council of 18 September 2000 on the taking up, pursuit of and prudential supervision of the business of electronic money institutions. [2000] L 275/39.

Chapter 6 Internet Third Party Payment, Virtual Currency and Their Regulation in the EU and UK

law is passed with a certain purpose which fits for its present circumstances. When a reform of a law is needed, it will come.

Chapter 7 Conclusion -- Lessons that China May Learn

Introduction

The regulation of Chinese Internet third party payment has been discussed in chapter 4, the regulation of virtual currency in China has been examined in chapter 5, the regulation of Internet third party payment and virtual currency in the EU and UK has been researched in chapter 6. In this conclusion chapter, the author is examining what lessons on regulatory measures and lawmaking experiences China may learn from the EU and UK, and from the western regulatory theories, as well as from its own regulatory practice. The lessons could be both positive and negative. A positive lesson means a successful regulatory principle or an appropriate specific regulatory measure that the Chinese regulator may take away from the EU and UK, and from the regulatory theories. A negative lesson means an unsuitable regulatory measure or a mistake that China should avoid to repeat.

1. Institutional regulation or functional regulation (activities regulation), EU's experience and China's choice

1.1 Theory of financial regulatory approaches

1.1.1 Four types of regulatory approaches in financial regulations

The choice of regulatory approach is an essential choice for the whole regulatory framework of any jurisdictions. All lawmakers, consciously or unconsciously, have to address this fundamental issue which is to be reflected in the law. There are four basic types of financial regulatory approaches: institutional regulation, functional regulation, regulation by objective, and integrated regulation. Functional regulation can also be named as activities regulation.

“Institutional regulation divides up mandates amongst agencies according to institutional type. Generally speaking, today, the mandate for several US Federal agencies correspond to this principle inasmuch as investment banks, state banks, national banks, bank holding companies, thrifts, and insurance companies all have separate lead regulators. China, Hong Kong and Mexico cleave to this approach.”¹

“Functional regulation divides up mandates according to activities—such as banking, securities trading, futures trading, and insurance activities and so on. Likewise, there are elements of functional regulation of this approach in the US current Federal financial regulatory regime, in for example the split between the Securities and Exchange Commission (SEC) for securities trading and the banking agencies for banking activities. Other countries, such as Brazil, France, Italy and Spain, have applied functional regulation but each in different ways.”²

“Regulation by objective is where different regulators take responsibility for different objectives, such as systemic stability, institutional safety and soundness, consumer protection and other aspects of the conduct of business, like transparency, fair market practices and disclosure. Twin Peaks is a sub-category of this approach where all of prudential regulation comes under one regulator and all of conduct-of-business regulation comes under another. Australia and the Netherlands have adopted this approach.”³

“Integrated regulatory approach is where all financial regulation is concentrated in a single agency. Canada, Germany, Japan and the UK provide examples.”⁴

¹ Taylor, Charles, “Choosing financial regulatory agency mandates” @ <http://fic.wharton.upenn.edu/fic/policy%20page/Choosing-Agency-Mandates.pdf> (8 January 2014). P. 2.

² Taylor, Charles, “Choosing financial regulatory agency mandates” @ <http://fic.wharton.upenn.edu/fic/policy%20page/Choosing-Agency-Mandates.pdf> (8 January 2014). P. 2.

³ Taylor, Charles, “Choosing financial regulatory agency mandates” @ <http://fic.wharton.upenn.edu/fic/policy%20page/Choosing-Agency-Mandates.pdf> (8 January 2014). P. 2.

⁴ Taylor, Charles, “Choosing financial regulatory agency mandates” @ <http://fic.wharton.upenn.edu/fic/policy%20page/Choosing-Agency-Mandates.pdf> (8 January 2014). P. 2.

1.1.2 Institutional regulation and functional regulation, the EU's application

Amongst the four types of regulatory approaches, institutional regulation and functional regulation are the two basic forms. (It should be pointed out that the issue of “choosing institutional regulation or functional regulation” is not a standalone question, instead, it entangles with other relevant issues such as regulators' roles and positions, definition issue, capital requirements, risk management, prudential supervision, etc. But the issue of regulatory approach could be abstracted out as an independent point to discuss.)

As the International Monetary Fund put it: “[because of] the expansion of activities of banks beyond the confines of what could be termed ‘traditional’, countries have begun to consider whether their financial regulatory structures, which were formulated in a seemingly outdated era, are still adequate (if not relevant) in today’s financial marketplace. Debate more often than not involves a discussion over functional versus institutional regulation. This debate is even relevant in the case of a mega-regulator as to how it should organize internally and coordinate its different departments.”⁵

“In the simplest of terms, institutional regulation places the supervision of certain institutions under the charge of a specified regulator or regulators. For instance, under this theory banks would be regulated by a specified banking agency, securities firms would be regulated by a specified securities agency and insurance companies would be regulated by a specified insurance agency. This has been the historic method of financial regulation (because in the original and traditional financial services industry, financial activities were far from interconnected and intertwined as nowadays⁶). A simple and straightforward approach, this theory fails to comport with modern realities which involve, for example, banks engaging in securities and insurance activities.”⁷

⁵ International Monetary Fund Legal Department, *Current Developments in Monetary and Financial Law* Volume 2. (Washington, D.C.: International Monetary Fund Legal Department, 2003). Norton, Joseph, “Supervisory trends in the twenty-first century”, p. 374. From Google Book review.

⁶ The sentence in the bracket was inserted by the author.

⁷ International Monetary Fund Legal Department, *Current Developments in Monetary and Financial Law* Volume 2. (Washington, D.C.: International Monetary Fund Legal Department, 2003). Norton, Joseph, “Supervisory trends in the twenty-first century”, p. 374 - 375. From Google Book review.

The author suggests that the institutional regulation contains four important distinctive features:

- A specific type of institution is created and defined by a law.
- The law can only be applied to this specific type of institution. Institutions other than this specific type of institution are not subject to the law.
- This specific type of institution can only undertake a number of specific activities stipulated by the law.
- Institutional regulation is based on first “who you are” (the identity of the institution); and the second “what you do” (the activities of the identified and qualified institution, this applies even if only a subset of activities falls within the regulatory definition (e.g. mobile telecoms undertaking payment services)⁸).

In the EU Electronic Money Directives scenario, the Electronic Money Directive 2000 creates a type of institution called “electronic money institution”. The Electronic Money Directive 2000 defines the meaning of this type of “electronic money institution” as an undertaking or any other legal person, other than a credit institution as defined in Article 1, point 1, first subparagraph (a) of Directive 2000/12/EC⁹ which issues means of payment in the form of electronic money.

“Electronic money” shall mean monetary value as represented by a claim on the issuer which is (i) stored on an electronic device; (ii) issued on receipt of funds of an amount not less in value than the monetary value issued; (iii) accepted as means of payment by undertakings other than the issuer.

⁸ See more discussions on “mobile telecoms undertaking payment services” in part 2.4.1 in chapter 6 of the thesis.

⁹ Directive 2000/12/EC of the European Parliament and of the Council of 20 March 2000 relating to the taking up and pursuit of the business of credit institutions. O.J. L 126/1.

Article 1, point 1, first subparagraph (a) of Directive 2000/12/EC¹⁰ defined “credit institution” as an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credits for its own account.

The Electronic Money Directive 2000 specifically regulates the defined “electronic money institution”. And it can only be applied to the electronic money institutions. Institutions other than the defined “electronic money institutions” are not subject to the regulation of the Electronic Money Directive 2000.

The defined “electronic money institutions” can only undertake a number of specific activities stipulated by the Electronic Money Directive 2000. Therefore, companies, such as mobile operators, which intends to engage both electronic money activities and other mobile telecommunications services, have to split up their business in to two or more than two legal entities.

Different from the institutional regulation, “functional regulation has been seen as an alternative approach,” summarised by the Legal Department of the International Monetary Fund, “ This theory separates regulatory responsibilities among agencies according to common activities or products, so that financial products, services and markets delivering similar benefits and risks can be subjected to substantially equivalent regulation and so that economic competition, rather than jurisdictional barriers or differences in supervision, can determine which products, services and markets succeed in the marketplace. In other words, functional regulation postulates that similar functions should be regulated similarly.”¹¹

¹⁰ It should be noted that the Directive 2000/12/EC is no longer in force.

¹¹ A further point is that the arguments for functional regulation are similar to those for online and offline equivalence. Professor Chris Reed’s article covers this @ <http://ijlit.oxfordjournals.org/content/early/2010/05/09/ijlit.eaq006.full.pdf+html> (8 January 2014) (sign in via Athens or institutional login). The reason why the online and offline equivalence issue is similar to functional regulation is because “A widely accepted principle of lawmaking is there should be equivalence between online and offline laws. The application of this principle requires the achievement of functional equivalence,

Accordingly, banking activities would be regulated by a banking agency, securities activities would be regulated by a securities agency and insurance activities by an insurance regulator.”¹²

Functional regulation is a relatively recent movement, but it is not perfect. The International Monetary Fund reports also provide disadvantages of the functional regulation approach: “Even though functional regulation promises to promote, inter alia, reduced duplication among regulators and increased fairness for regulated activities, it harbours serious shortcomings which render it problematic and prevent it from being incorporated wholesale as a modus operandi of financial marketplace supervision. First, the functions, much like institutions, are becoming increasingly difficult to distinguish. As the business of finance becomes ever more intertwined, the meshing of functional distinctions could make functional regulation as obsolete as strict institutional regulation seems to have become. Furthermore, in relation to financial conglomerates, functional regulation would have the effect of (i) subjecting these institutions to multiple regulators, thereby increasing their cost of compliance, and (ii) preventing any single regulator from gaining a “full picture” of the institution and its operations, which would have the potential effect of allowing certain regulatory issues to “fall between the cracks.” As a result, functional regulation cannot exclusively provide an adequate, efficient, or even, feasible method of supervision for these entities.”¹³

The author suggests that, in contrast to the institutional regulation, functional regulation (activities regulation) contains three distinctive important features:

irrespective of whether there is also formal equivalence of wording.” See abstract of Professor Chris Reed’s paper.

¹² International Monetary Fund Legal Department, *Current Developments in Monetary and Financial Law* Volume 2. (Washington, D.C.: International Monetary Fund Legal Department, 2003). Norton, Joseph, “Supervisory trends in the twenty-first century”, p. 375. From Google Book review.

¹³ International Monetary Fund Legal Department, *Current Developments in Monetary and Financial Law* Volume 2. (Washington, D.C.: International Monetary Fund Legal Department, 2003). Norton, Joseph, “Supervisory trends in the twenty-first century”, p. 375 - 376. From Google Book review.

Chapter 7 Conclusion – Lessons that China May Learn

- The law does not create any particular term/terminology for the purpose of regulation as the institutional regulation does.
- The law allows different kinds of institutions to undertake a certain type of activities or the same activities.
- Functional regulation (activities regulation) is based on “what you do” rather than “who you are”.

In the EU scenario, the Electronic Money Directive 2009 adopts the functional regulation (activities regulation) approach. As article 1 of the Directive states: “This Directive lays down the rules for the pursuit of the activity of issuing electronic money to which end the Member States shall recognise the following categories of electronic money issuer.” Article 1 of this Directive allows various kinds of institutions to undertake the activity of issuing electronic money. Those institutions include (a) credit institutions as defined in point 1 of Article 4 of Directive 2006/48/EC; (b) electronic money institutions as defined in point 1 of Article 2 of this Directive; (c) post office giro institutions which are entitled under national law to issue electronic money; (d) the European Central Bank and national central banks when not acting in their capacity as monetary authority of other public authorities; (e) Member States or their regional or local authorities when acting in their capacity as public authorities.

Although in Article 2 of the Electronic Money Directive 2009, the meaning of the “electronic money institution” is also given, the purpose is not to define what the “electronic money institution” is. Instead, the purpose is for the Electronic Money Directive 2009, to clarify that if a legal person has been granted authorisation under Title II to issue electronic money, then it should be regarded as an “electronic money institution” under this Directive; natural or legal persons who are not electronic money issuers, must be prohibited from issuing electronic money (article 10).

Thereafter, the Electronic Money Directive 2009 continue to address what legal rights and obligations those institutions (which engage the business of issuing electronic money) have, such as general prudential rules, initial capital requirements, own funds requirements, activities those institutions may or may not undertake, safeguarding requirements, and so on so forth.

1.2 The reason why the EU electronic money regulatory regime switched from institutional regulation to functional regulation (activities regulation)

In order to assess market reactions of the Electronic Money Directive 2000 and evaluate the necessity of updating and revising the Directive, the European Commission has consulted widely among electronic money stakeholders. Those electronic money stakeholders include representatives from banking associations, payment institutions and mobile operators,¹⁴ such as O2,¹⁵ Vodafone,¹⁶ UK Treasury,¹⁷ Transport for London,¹⁸ MasterCard International,¹⁹ the British Bankers Association²⁰ and so on so forth. Different electronic money stakeholders held different opinions about the Electronic Money Directive 2000. However, there is one common view which was shared amongst most electronic money stakeholders. The view is that the Electronic Money Directive 2000 went against the development of electronic money hybrid business which is a general technological and market trend. In other words, the institutional regulatory approach adopted in the Electronic Money Directive 2000 has prevented hybrid business, such as mobile operators, from engaging electronic money business, discouraged new entrants, restricted competition and hindered technological innovation. European Commission's questionnaires answered by electronic money stakeholders have provided concrete evidence for this view.

¹⁴ "Application of the E-money Directive to mobile operators, Consultation paper of DG Internal Market".

¹⁵ Questionnaire on the E-Money Directive (2000/46/EC) – O2 Response, Comments of the O2 Group on the Questionnaire issued by DG Internal Markets on the 14 July 2005 Ref E-Money 003/2005.

¹⁶ Vodafone response to the consultation on the electronic money Directive (Ref: E-money 003/2005).

¹⁷ Questionnaire on the Electronic Money Directive (2000/46/EC), answered by the UK Treasury.

¹⁸ Three specific issues raised by Transport for London to the European Commission further to the European Commission's "Questionnaire on the Electronic Money Directive (2000/46/EC)".

¹⁹ Questionnaire on the Electronic Money Directive (2000/46/EC) answered by MasterCard on the Electronic Money Directive (2000/46/EC).

²⁰ British Bankers' Association answers European Commission's Questionnaire on the Electronic Money Directive (2000/46/EC).

Vodafone addressed the European Commission’s questionnaire on the Electronic Money Directive 2000.

Question 14 Restrictions of activities:

a) Is the limitation of E-Money institutions’ activities too restrictive?

Yes; at present this prevents hybrid organizations from offering e-money. Either hybrid organizations must be excluded from the definition of e-money or the e-money Directive must be re-drafted entirely to enable hybrid organizations to offer e-money. In addition, there is no clear justification for this restriction. It does not offer protection to e-money bearers; in fact it reduces protection to them.²¹

b) Does the limitation of activities discourage new entrants, restrict competition or hinder innovation?

Yes, for the reasons set out above.²²

O2 addressed the European Commission’s questionnaire on the Electronic Money Directive 2000.

“One of the key aims of the Directive was to provide certainty as to the level of regulation. However, this appears to have acted as a straight jacket; defining a limited number of business models and did not address one of the most significant emerging models, that of hybrid businesses. Hybrid businesses should be explicitly covered in any changes to the Directive.”²³

Furthermore, O2 argued in the questionnaire that:

²¹ Vodafone response to the consultation on the Electronic Money Directive (Ref: E-money 003/2005). p.8.

²² Vodafone response to the consultation on the Electronic Money Directive (Ref: E-money 003/2005). p.9.

²³ Questionnaire on the E-Money Directive (2000/46/EC) – O2 Response, Comments of the O2 Group on the Questionnaire issued by DG Internal Markets on the 14 July 2005 Ref E-Money 003/2005. p. 1.

“Hybrid institutions raise three main problems for the current Directive as drafted.²⁴

1. The amount of stored e-value that is subsequently used for e-money services (however defined) is only known on an ex-post basis.
2. Redeemability-E-money (as defined) is not created until the mobile airtime balance is converted into a payment to a third party service provider (or their account – as defined under the new guidelines). Consequently there is in practice nothing to redeem.
3. Capital requirement – ex-post assessment of exposure rather devalues the requirement to set aside capital to cover outstanding e-money balances. If in the case of hybrid organisations:
 - a. e-money isn't created until a transaction takes place then there is no outstanding e-money balance, just an e-value balance; the redeemability requirement is not really applicable.
 - b. hybrid organisations may through the course of their existing businesses have significant available capital to cover inflows and outflows of cash; in these cases there appears little value in ring fencing, with the attendant costs, relatively small amounts of money.”

International payment tycoon MasterCard International provided similar view when answering the European Commission questionnaire.²⁵

“Question 1 b, has a level playing-field between Electronic Money Institutions and other pre-paid payment service providers issuing E-Money been achieved?”

MasterCard answered that,

“In our view the Directive has not been applied consistently to other pre-paid payment service providers that issue e-money. Firms that only deal with e-money or other

²⁴ Questionnaire on the E-Money Directive (2000/46/EC) – O2 Response, Comments of the O2 Group on the Questionnaire issued by DG Internal Markets on the 14 July 2005 Ref E-Money 003/2005. p. 4.

²⁵ Questionnaire on Electronic Money Directive (2000/46/EC) answered by MasterCard on the Electronic Money Directive (2000/46/EC).

financial products have in the main been dealt with in a manner that has ensured a level-playing field. Where an organisation has offered e-money and pre-paid services to consumers and merchants even though their main line of business is not in E-Money financial services, we believe that a far from level playing field has been achieved. In particular, the beneficial treatment of Mobile Telephone Operators in relation to the use of pre-paid airtime poses a threat to the success of the more traditional E-Money Directive are being undermined by a different regulatory treatment being given to Mobile Telephone Operators, seemingly founded on their use of a different delivery channel.”

Question 14 a, “is the limitation of E-Money institutions’ activities too restrictive?”

MasterCard answered that,

“We believe that the current restrictions should be relaxed to allow associated activities to be undertaken, including those typically undertaken by payment providers.”

As a result, the European Commission decided to revise and update the 2000 Directive. Switching the regulatory approach from “institutional regulation” in the Electronic Money Directive 2000 to “functional regulation (activities regulation)” in the Electronic Money Directive 2009 is one of the major issues which have been revised and updated.

1.3 China’s situation and China’s choice in the regulatory approach of Internet third party payment

As it has been extensively discussed in chapter 2 of the thesis, in China, the Internet third party payment is regarded as non-financial institutions payment services and is under the regulation of the “Measures of Management on Non-Financial Institutions Payment Services”. The People’s Bank of China is the regulator.

The author suggests that the People’s Bank of China has adopted functional regulatory approach, rather than institutional regulatory approach, in the “Measures of Management on Non-Financial Institutions Payment Services”, and Internet third party payment is also regulated under the functional regulatory approach in the Measures, because:

- The law does not create any specific term for the purpose of regulation as the institutional regulation does.

The “Measures of Management on Non-Financial Institutions Payment Services” did not create any specific type of institutions, such as “Non-Financial Institutions Payment Services Providers” or something likewise.

- The law allows different kinds of institutions to undertake a certain type of activities or the same activities.

As long as payment services licences can be obtained (see part 3.1 of chapter 2 of the thesis for details of the licensing point), the “Measures of Management on Non-Financial Institutions Payment Services” allows different kinds of non-financial institutions to undertake a certain type of activities. Article 2 of the Measures states, “Non-Financial Institutions Payment Services in the Measures means that acting as agencies, Non-Financial Institutions provide some or all of the following funds transfer services to payers and payees:

- (1) Network payment;
- (2) Pre-paid cards issuance and acceptance;
- (3) Bank cards acquiring services
- (4) Other payment services stipulated by the People’s Bank of China

Network payment in the Measures means funds transfers between payers and payees through public Internet or specialised networks, which include currency transfers,

Internet payment, mobile phone payment, fixed telephone payment, digital TV payment, etc.

Pre-paid cards in the Measures means that prepaid value is issued with commercial purposes, and used outside issuers to purchase commodities and services. Pre-paid cards can be issued in forms of cards and passwords with magnetic, chips or other technologies.

Bank cards acquiring services in the Measures means acquiring currency funds on behalf of bank cards chartered merchants through points of sales (POS).”

- Functional regulation (activities regulation) is based on “what you do” rather than “who you are”.

The “Measures of Management on Non-Financial Institutions Payment Services” concerns what payment activities are undertaken. It does not care what kinds of institutions are undertaking those payment activities, as long as they are not financial institutions.

On this regards, the problem of “preventing hybrid business from engaging electronic money business” arising from institutional regulation in the Electronic Money Directive 2000 in the EU would not occur in China’s Internet third party payment market. Instead, the functional regulatory approach embedded in the “Measures of Management on Non-Financial Institutions Payment Services” could accommodate and facilitate both sole Internet third party payment services business and hybrid business, encourage new entrants and competition, and promote technological innovation. As a matter of fact, by the end of 2011, 101 payment services licences have been issued by the People’s Bank of China to non-financial institutions. Those licensed non-financial institutions include both pure Internet third party payment providers, such as QuickMoney; and hybrid Internet third party payment

services providers including mobile operators, such as China Mobile, ChinaUnicom and China Telecommunications.²⁶

1.4 China's situation and China's choice in the regulatory approach of virtual currency

As it has been extensively discussed in chapter 3 of the thesis, in China, virtual currency is comprehensively regulated by the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”. The Ministry of Commerce and Ministry of Culture of the People's Republic of China are regulators.

Similar to the Internet third party payment, the author also suggests that the Ministry of Commerce and Ministry of Culture have adopted functional regulatory approach, rather than institutional regulatory approach, in the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”, and virtual currency is also regulated under the functional regulatory approach in the Notice, because:

- The law does not create any specific term for the purpose of regulation as the institutional regulation does.

The “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency” did not create any specific institution, such as “Internet Games Virtual Currency Providers” or something likewise.

- The law allows different kinds of institutions to undertake a certain type of activities or the same activities.

²⁶ Xu, Jieyun (徐洁云), “The fourth batch of payment services licenses are likely to be issued by the 2012 Chinese New Year, enterprises are competing for mobile payment services.” *The First Finance Daily* @ <http://ec.iresearch.cn/54/20120105/160813.shtml> (8 January 2014).

As long as approval can be obtained by enterprises from departments of culture administration, article 2 of the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency” allows any enterprise to undertake either Internet games virtual currency issuance service or Internet games virtual currency exchange service. This means that it is the activities of virtual currency issuance and exchange services which is under the regulation of the Notice, not enterprises.

- Functional regulation (activities regulation) is based on “what you do” rather than “who you are”.

The “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency” concerns what enterprises do. It does not care the nature of the enterprises.

Therefore, similar to the Internet third party payment, problem of “preventing hybrid business from engaging electronic money business” arising from institutional regulation in the Electronic Money Directive 2000 in the EU would not occur in China’s Internet games virtual currency market.

1.5 Transition in a big picture

China adopts functional regulatory approach for both Internet third party payment and Internet games virtual currency. Readers might ask: is this a coincidence? The author argues that, no, it is not a coincidence. It is a general trend in the financial regulatory regime. The Chinese leaders’ speeches in various important occasions could back up this argument.

The Governor of the People’s Bank of China Zhou Xiaochuan (周小川) said in the Working Conference of China National Foreign Banks in 2004:

“Constant changes of market demands and continuous emergence of intertwined products are increasingly calling for establishing the notion of functional regulation to accommodate changing situations and enhancing coordination.”²⁷

The Deputy Governor of the People’s Bank of China Wu Xiaoling (吴晓灵) also said in 2004 China International Finance Forum:

“A unified system must be established for financial products which are essentially in the same legal relationship, so as to implement functional regulation; rather than making legislations and principles in accordance with institutions. Financial regulation must not restrict the freedom of property transactions, instead, it should let citizens realise risks, learn to identify risks, be willing to bear risks and control the risks in a bearable range when exercise their property rights.”²⁸

To further understand the issue of institutional regulation and functional regulation in Internet third party payment and Internet games virtual currency in China, it is helpful to view this issue in a bigger picture. The bigger picture is that China is undergoing a major transition in financial regulatory system.²⁹ Shifting from pure institutional regulation to a combination of institutional regulation and functional regulation assisted by other regulatory approaches is one of important elements within the major transition.

²⁷ “This World will separate after long time united, and also will do the opposite after long time splitting: the changing history of financial regulation”, *China Securities*, @ http://www.cs.com.cn/bxtd/200610/t20061016_1005305.htm (8 January 2014). Governor Zhou Xiaochuan’s original speech in Chinese is “市场需求的不断变化和业务交叉性产品的不断出现，日益要求树立功能监管观念，适应形势，加强协调。”

²⁸ “This World will separate after long time united, and also will do the opposite after long time splitting: the changing history of financial regulation”, *China Securities*, @ http://www.cs.com.cn/bxtd/200610/t20061016_1005305.htm (8 January 2014). Deputy Governor Wu Xiaoling’s original speech in Chinese is “对同一法律关系的金融产品应建立统一的制度，实行功能监管，而不能按机构分类来制定规章制度。金融监管不应限制财产交易的自由，而应该让公民在行使财产权时意识到风险、学会识别风险、愿意承担风险、把风险控制 在承受能力范围之内。”

²⁹ See reference book, Calomiris, Charles, (ed.) *China’s Financial Transition at a Crossroads*, (New York: Columbia University Press, 2007). Also see Chen, Hongyi, Jonung, Lars and Unterobderster, Olaf, “Lessons for China from financial liberalization in Scandinavia”, European Commission Economic Papers 383 August 2009, http://ec.europa.eu/economy_finance/publications/publication15805_en.pdf (8 January 2014).

Since the transition of financial regulation in China deserve another thesis to discuss, therefore, the author shall not go into details in this thesis, but just briefly mention that functional regulatory approach is not adopted by accident, it is in a bigger picture of the major transition.

1.6 Shortcomings of functional regulation in context

Another point which needs to be raised is that no regulatory approach is perfect, so is the functional regulation which also contains potential shortcomings. In part 1.1.2 of this chapter, some general shortcomings of functional regulation have been raised according to the International Monetary Fund report, which include:

- “As the business of finance becomes ever more intertwined, functions, much like institutions, are becoming increasingly difficult to distinguish; the meshing of functional distinctions could make functional regulation as obsolete as strict institutional regulation seems to have become.”

In the context of Internet third party payment and Internet games virtual currency, functions are not difficult to distinguish because they are straightforward. Technically, it is clear which service is an Internet third party payment service, and under which circumstances Internet games virtual currency is issued and exchanged.

- “In functional regulatory scenarios where multiple regulators exist, multiple regulators may prevent any single regulator from gaining a “full picture” of the institution and its operations, which would have the potential effect of allowing certain regulatory issues to “fall between the cracks; which would also have the potential effect of regulating activities in an overlapping manner.”

In the context of Internet third party payment regulation, there is only one regulator—the People’s Bank of China, therefore, the potential shortcoming of multiple regulators would not occur. In terms of regulating criminal activities through Internet third party payment providers, such as money laundering, the “Measures of Management on Non-Financial Institutions Payment Services” has made it clear that the People’s Bank of China and its branches have the obligation to regulate money laundering issues in accordance with relevant anti-money laundering legislations and stipulations.³⁰

However, in the context of regulating Internet games virtual currency, at least two Ministries—the Ministry of Commerce and Ministry of Culture are involved in implementing the “Notice of enhancing Regulatory Works on Internet Games Virtual Currency”. If previous Notices and Rules are also considered, more regulators shall participate. For example, the “Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games” was jointly released by four Chinese governmental departments (see part 4.1 of chapter 5 of the thesis). The “Notice on Further Enhancing the Regulatory Work of cyber Cafes and Internet Games” was jointly issued by 14 Chinese central governmental departments (see part 4.2 of chapter 5 of the thesis). It would be difficult for outsiders to know exactly how those governmental departments and ministries cooperate with each other in detail. But it is clear that if those multiple regulators cannot cooperate well, the shortcoming of functional regulation will be revealed, and functional regulation may not be able to provide an adequate and efficient regulatory system for Internet games virtual currency.

To sum up lesson 1, China has learned the EU experience on institutional regulation and functional regulation in terms of regulating Internet third party payment and Internet games

³⁰ Article 36 of the “Measures of Management on Non-Financial Institutions Payment Services”.

virtual currency. China has already incorporated the lesson into relevant Measures, Notices and legislations.

2. Lesson 2: Clearer and wider definition

2.1 EU’s experience on defining “electronic money” in the Electronic Money Directives

Since electronic money lies in the heart of the Electronic Money Directive 2000 and the Electronic Money Directive 2009, both Directives have provided definitions of “electronic money”. However, one of the problems of the regime created by the Electronic Money Directive 2000 related to a lack of clear definition of what amounted to “e-money” for the purpose of the 2000 Directive and for the implementing legislation in each Member State.³¹

The concept of “electronic money” is defined in article 1 of the Electronic Money Directive 2000 as:

“monetary value as represented by a claim on the issuer which is:

- Stored on an electronic device;
- Issued on receipt of funds of an amount not less in value than the monetary value issued;
- Accepted as means of payment by undertakings other than the issuer.³²”

³¹ Mitton, Adam, “Can there be a better future for e-money in the EU?”, (this article was first published in *E-Finance&Payments Law & Policy*, 2010, 4(2), 12-13) @ http://www.harbottle.com/hnl/pages/article_view_hnl/5988.php (8 January 2014).

³² Art. 1 (3) (b), Directive 2000/46/EC of the European Parliament and of the Council of 18 September 2000 on the taking up, pursuit of and prudential supervision of the business of electronic money institutions. [2000] L 275/39.

In relation to the first part, it was unclear whether the definition would apply to Internet payment schemes where the e-money was held in an account, rather than on a physical device such as a smart card. The uncertainty was created by wording in the Directive that electronic money can be considered a surrogate for coins and banknotes and the implication is that there should be some physical element to electronic money (as there would be with a smartcard).³³ As Recital (3) of the Electronic Money Directive 2000 states:

“For the purposes of this Directive, electronic money can be considered an electronic surrogate for coins and banknotes, which is stored on an electronic device such as a chip card or computer memory and which is generally intended for the purpose of effecting electronic payments of limited amounts.”

In relation to the third part, questions have arisen as to whether the definition of electronic money would or should include electronic vouchers, mobile network operators' prepaid services and smartcards for public transport, such as the Oyster card in London. To illustrate the degree of uncertainty and ambiguity in relation to mobile network operators and use of prepaid airtime to pay for third party services, the Evaluation Report³⁴ notes that, although there was no evidence that the 2000 Directive was being applied to any mobile network operators, Member States' approaches differed considerably. Some (including the UK) followed European Commission guidance issues in 2005 to the effect that, if a scheme is implemented such that there is no direct debtor creditor relationship between the third party merchant and the consumer, that scheme should not be considered e-money. Other Member States decided not to apply the 2000 Directive, pending further clarification from the EU Commission. One Member State, however, reported that there was no issue to consider as all mobile network operators had a banking licence and were appropriately regulated anyway.³⁵

³³ Mitton, Adam, “Can there be a better future for e-money in the EU?”, (this article was first published in *E-Finance & Payments Law & Policy*, 2010, 4(2), 12-13) @ http://www.harbottle.com/hnl/pages/article_view_hnl/5988.php (8 January 2014).

³⁴ The Evaluation Partnership Limited, “Evaluation of the E-Money Directive (2000/46/EC) Final Report for the DG Internal Market The European Commission”, @ http://ec.europa.eu/internal_market/payments/emoney/index_en.htm (8 January 2014).

³⁵ Mitton, Adam, “Can there be a better future for e-money in the EU?”, *E-finance & Payments Law & Policy*, 2010, 4(2), 12-13).

In response to the ambiguity of the Electronic Money Directive 2000, the Electronic Money Directive 2009 has amended the definition of “electronic money” to monetary value as represented by a claim on the issuer:

- electronically (including magnetically) stored;
- issued on receipt of funds for the purpose of making payment transactions;
- accepted by a natural or legal person other than the electronic money issuer.

The requirement that claims be stored on an electronic device has been replaced with the requirement that the claims are electronically or magnetically stored. In addition, Recital 8 states that the definition of e-money should apply to e-money stored on a server managed by the e-money holder. In relation to the other areas of uncertainty, the 2009 Directive addresses these not in the substantive definition of e-money, but in the Recitals. For example, Recitals 5 & 6 provide that the Directive should not apply to instruments such as store cards, public transport cards, meal vouchers or vouchers for services (unless such a specific purpose instrument develops into a general purpose instrument) or to the situation where a customer/subscriber pays an mobile network operator and there is no direct payment or debtor-creditor relationship³⁶ between the subscriber and the third party provider of digital goods or services.³⁷

³⁶ There are five basic mobile operators’ business models which reflect five types of legal relationships between customers and mobile network operators.

Business modal 1: A mobile operator offers content to its customers via a “portal” without specifying the origin of the content. Therefore, the product/service belongs to the mobile operator itself, or it is re-sold and supplied by the mobile operator, or it is sold and/or supplied by a third party but without any information to the customer. In practice, the purchase is made using the portal as a catalogue. In this example, the customer has only one counterparty: the mobile operator. The e-value is spent to buy something presented as an ancillary product/service of the mobile operator.

Business model 2: A mobile operator offers its customers content through a “portal” and it is clearly apparent that some products or services are produced and/or supplied by third parties. However, the mobile operator appears as “the seller” to the customer. In this context, the payment is likely to be made to the mobile operator in exchange of what appears one of its ancillary services. Again, there is no question of e-money, because the card is not used as a real multi-purpose card (intended also to pay third parties). It will also be interesting to assess who is responsible for the product/service in case of default, error in delivery etc. More details on these

From the amendment history of the definition of “electronic money” in the Electronic Money Directive 2000 and the Electronic Money Directive 2009, there are at least two points that China may consider to learn from the EU experience: clearer definition and wider approach.

Firstly, it is important to provide a clear definition of “electronic money” to avoid ambiguity when the regulators attempt to regulate it. Secondly, on the basis of a clear definition, it is necessary to adopt a relative wider approach to define “electronic money”. As the Recital 8 of the Electronic Money Directive 2009 states:

“That definition should be wide enough to avoid hampering technological innovation and to cover not only all the electronic money products available today in the market but also those products which could be developed in the future.”

arrangements could clarify if, despite the technical arrangement adopted to sell the product/service, the content must be considered as sold by the third party and this third undertaking is the real counterparty.

Business model 3: A mobile operator offers content through a “portal”, and where certain products or services are clearly produced, supplied and sold by third parties. In this context there are three visible actors and the card is likely to be used as a real multi-purpose card. The mobile operator appears as mere “carrier” of communications or of the digital content, if any.

Business model 4: Access to services through a channel other than the mobile operator’s portal. The customer may call a specific phone number or connect himself to a webpage, and make his purchase via voice-call, SMS, or web message. In this case, the mobile operator appears as a mere technical intermediary for the communication allowing the order and the delivery of the content on the handset (examples: logos, screen savers, games news, horoscope, music, ring tones, videos, etc). In this case, as in the case described in business model 3, as well as for the exception described in business model 2, there are three visible actors: a customer (purchaser), a merchant (seller and supplier of the content) and the mobile operator (technological intermediary for this new form of e-commerce). The pre-paid card becomes a multi-purpose card and its-value is used to pay a provider other than the issuer. The requirements of the Electronic Money Directive 2000 will be met.

Business model 5: a case exists where mobile operators are themselves in no doubt that the e-value used as mean of payment is de facto e-money. For example, a customer may dial a phone number and pay for a parking space; buy a soft drink from a vending machine or orders a CD or a pizza to be delivered at home. In these cases, there is no confusion or overlap between the communication service and the product/service paid, or the origin of the product or service, neither by the customer nor by the phone company.

“Application of the E-money Directive to mobile operators, Consultation paper of DG Internal Market”, p. 10-11.

³⁷ Mitton, Adam, “Can there be a better future for e-money in the EU?”, (this article was first published in *E-Finance & Payments Law & Policy*, 2010, 4(2), 12-13) @

http://www.harbottle.com/hnl/pages/article_view_hnl/5988.php (8 January 2014).

2.2 Legal definitions of Internet third party payment and virtual currency in China

2.2.1 Legal definition of Internet third party payment

In the primary regulatory rules of Internet third party payment, the “Measures of Management on Non-Financial Institutions Payment Services”, the definition of Internet third party payment is not given. As a matter of fact, the term “Internet third party payment” is not explicitly used in the Measures. Instead, the Measures employs “network payment” to cover a wide range of payment services.

Article 2 of the Measures defines that:

“Network payment in the Measures means funds transfers between payers and payees through public Internet or specialised networks, which include currency transfers, Internet payment, mobile phone payment, fixed telephone payment, digital TV payment, etc.”

The author suggests that the definition of “network payment” is a clear and wide one, although it does not further specify the definition of currency transfers, Internet payment, mobile phone payment, fixed telephone payment, and digital TV payment.

It is a clear definition because, unlike the definition of “electronic money” in the EU Electronic Money Directive 2000, it will not lead to wordings ambiguity of any kind.

It is a wide definition because the definition of “network payment” would have enough volume and space to cover not only current existing payment services but also accommodate payment services in the foreseeable future. To the best of the author’s knowledge and imagination, no matter how technology evolves, payment services have to rely on network in the next decades to come. This wide definition is also helpful for the Measures to achieve its

goal, which is to catch all non-financial institutions that provide payment services. After all, the Measures are not specifically designed to regulate the Internet third party payment.

2.2.2 Legal definition of virtual currency

In contrast to the Internet third party payment, in the primary regulatory rules of Internet games virtual currency, the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency”, the definition of Internet games virtual currency is clearly provided in article 1 which can be broken down into 6 points:

- (1) “The Internet Games Virtual Currency described in this Notice is a kind of virtual exchange instrument which is issued by Internet games operation enterprises;
- (2) purchased by games users *pro rata* directly or indirectly with legitimate currency;
- (3) existing outside games programs;
- (4) stored in the form of electromagnetic recordings within servers provided by Internet games operation enterprises and represents in specific digital units;
- (5) Internet games virtual currency is used to exchange Internet games services provided by issuance enterprises within specified range and specified time.
- (6) Existence forms of virtual currency include pre-paid card, pre-paid amounts of money or points and etc in the Internet games, but do not include games equipments from the Internet games activities.”

The author suggests that this definition is neither clear nor wide enough for two reasons:

First, point (2) requires Internet games virtual currency is “purchased by games users *pro rata* directly or indirectly with legitimate currency.” It is clear what “purchasing directly with legitimate currency” means. However, it is unclear what “purchasing indirectly with

legitimate currency” means. The only one possibility the author can guess³⁸ is that a virtual currency is purchased with a different virtual currency. E.g. I buy Q coins with legitimate currency, and then use those Q coins to buy a different virtual currency. If this is what the original meaning of the Ministry of Commerce and Ministry of Culture, the author would suggest that it is better to make it clear – “it is purchased by games users *pro rata* either with legitimate currency or with a different virtual currency”, in point (2) of the definition.

Second, point (3) requires “Internet games virtual currency exists outside games programs.” However, games players understand that Internet games virtual currency could exist both inside and outside games programs.³⁹ Internet games virtual currency existing outside games programs can be purchased with legitimate currency and used to buy commodities and services which are offered by Internet companies. For example, Q coins can be regarded as a type of Internet games virtual currency existing outside games programs. There is also Internet games virtual currency existing inside games programs, for example, “Happy bean” is a sort of payment instrument existing within several specific QQ games programs. Unlike the Q coins, the “Happy bean” is not only issued by Tencent company, but also it can be created by the game itself through various means, such as winning a lottery in the game, playing the game for a longer time to receive awards for encouragement, skilfully spending considerable amounts of time and energy to play the games, etc.⁴⁰

Since one of the main aims of the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency” is to protect users’ rights and interest, the author suggests that users’ interest on Internet games virtual currency existing both inside and outside should be protected. As a matter of fact, in China’s legal practice, the court has started to support users’ claims on virtual property lost. “Red Moon” case is the first virtual property rights dispute

³⁸ Lawmakers should not let people guess the original meaning of the law.

³⁹ Lei, Teng (雷腾), “understanding and explaining the ‘Notice of Enhancing Regulatory Works on Internet Games Virtual Currency’ ” @ http://blog.sina.com.cn/s/blog_608718000100dxbh.html (8 January 2014).

⁴⁰ Meng, Ming (孟明), “Harms caused by virtual currency transaction and its regulatory approaches”, Journal of China Three Gorges University (Humanities & Social Sciences) (三峡大学学报, 人文社会科学版), Sep. 2007, Vol 29, No. 5.

case in China.⁴¹ The essential argument of this case is that the court believes that users' hard-earned game items (including Internet games virtual currency) and his virtual status should be protected. Although China is not a case law country, and courts' judgments cannot constitute legally binding documents, it demonstrates the development trend and spirit of the Chinese legal system when the law meets new technologies.

Furthermore, regarding point (3) of the definition of "Internet games virtual currency"—"existing outside games programs", how about if there is virtual currency which exists both inside and outside games programs? In this case, this definition will fall into a dilemma.

Based on the arguments in last two paragraphs, the author suggests that law makers should either remove point (3) from the definition of "Internet games virtual currency" or change it into "existing inside or outside games programs".

Third, point (4) requires "Internet games virtual currency" -- "stored in the form of electromagnetic recordings within servers provided by Internet games operation enterprises and represents in specific digital units". This is not a technological neutral approach to for definitions, and it is too narrow to accommodate technological innovation and development. A good counterargument is cloud computing.⁴² In cloud computing technology, data stored in the form of electromagnetic recordings are not necessarily within servers provided by Internet games operation enterprises. It could be stored within other servers or in the Internet in a

⁴¹ This intriguing case involved a 24-year-old man named Li Hongchen who was a dedicated player of a MMORPG called "Red Moon". Through Mr Li's time, effort and money, he had managed to accumulate, inter alia, virtual biochemical weapons. The virtual weapons formed an integral part of the game play and had extreme value to Mr Li. Not only were the virtual items of great sentimental value to Mr Li but he had also spent money to gain them. Mr Li's virtual property was stolen by a hacker and he wanted remedy for his loss. The judge made an interesting decision. "Blaming security holes in the servers of online gaming company Beijing arctic ice technology Development Company, the court held the company liable for the theft of the Mr Li's hard-earned game items and status. In addition to rearming the gamer, who unsuccessfully lobbied the company and even police in the matter, it is not clear whether or not arctic ice also will have to damages claimed by LI." Lee, Matthew, "Online Role Play Games – The Legal Response", Hertfordshire Law Journal 4 (2), 72-80 @ http://www.herts.ac.uk/fms/documents/schools/law/HLJ_V4I2_Lee.pdf (8 January 2014).

⁴² It is difficult to precisely define what cloud computing is. Wikipedia provides a relatively good explanation: "Cloud computing is the delivery of computing as a service rather than a product, whereby shared resources, software, and information are provided to computers and other devices as a metered service over a network (typically the Internet)." @ http://en.wikipedia.org/wiki/Cloud_computing (8 January 2014).

cloud system. In this case, would point (4) of the definition apply? Point (4) shows that the lawmakers did not consider the issue of technology neutrality. The author suggests that learn the lesson from the new definition of “electronic money” in the EU Electronic Money Directive 2009, replacing the current point (4) with a simpler and wider term “electronically stored” or something similar.

To sum up, the second lesson that China could learn from the EU experience in terms of definition is to make the definition as clear as possible and as wide as possible, so as to avoid wordings ambiguity and hindering technological innovations

3. Lesson 3: Light-touch regulation

3.1 EU’s experience on light-touch regulation

In drafting the proposal for the E-Money Directive 2000, the European Commission put a strong emphasis on competition and innovation. The Commission saw e-money as an essential tool to foster e-commerce, and as a field with a new and quickly evolving technology in which Europe might be able to take a lead. It was therefore keen to create a relatively “light” legal framework that would encourage innovation.⁴³ In other words, at the initial stage of the Electronic Money Directive 2000, a light-touch regulation policy had been deeply embedded.

As it has been discussed in part 4 of chapter 3 of the thesis, the UK Parliament Better Regulation Executive (BRE) has provided a definition of light-touch regulation. It writes that “Better Regulation is about providing protection whilst minimising the cost to business, the public and third sectors ... To this end, the Better Regulation Executive is working to change

⁴³ The Evaluation Partnership Limited, “Evaluation of the E-Money Directive (2000/46/EC) Final Report for the DG Internal Market The European Commission”, p. 18 @ http://ec.europa.eu/internal_market/payments/emonney/index_en.htm (8 January 2014).

the culture of regulation in the UK towards a light touch approach that regulates only when necessary and keeps protections high, but burdens low”.⁴⁴

In the context of the EU Electronic Money Directive 2000 and the Electronic Money Directive 2009, the light-touch regulatory regime is reflected particularly in five aspects:

- Reducing initial capital requirements
- Lessening limitation of investment rules
- Adopting technology neutrality approach
- Allowing hybrid organisations to engage in electronic money business
- Adopting waiver schemes

First, the Electronic Money Directive 2009 attempts to reduce the regulatory burdens faced by new entrants,⁴⁵ and adopts a light-touch regulatory regime. The initial capital requirement has been reduced from €1 million to €350,000. As the 2006 evaluation reports concludes: “The initial capital requirements in particular seem to represent a significant barrier to market entry. This is widespread support among the industry, as well as among certain national authorities, to lowering the initial capital required.”⁴⁶

Second, limitation of investment rules (article 5 of the Electronic Money Directive 2000) has been replaced by safeguarding rules (article 7 of the Electronic Money Directive 2009) which

⁴⁴ UK Parliament, Select Committee on Regulators First Report, Chapter 4: “How regulators work—self-discipline and self-evaluation” @ <http://www.publications.parliament.uk/pa/ld200607/ldselect/ldrgltrs/189/18907.htm> (8 January 2014).

⁴⁵ Mitton, Adam, “Can there be a better future for e-money in the EU?”, (this article was first published in *e-finance&payments law & policy*, 2010, 4(2), 12-13) @ http://www.harbottle.com/hnl/pages/article_view_hnl/5988.php (8 January 2014).

⁴⁶ The Evaluation Partnership Limited, “Evaluation of the E-Money Directive (2000/46/EC) Final Report for the DG Internal Market The European Commission”, p. 82 @ http://ec.europa.eu/internal_market/payments/emoney/index_en.htm (8 January 2014).

is another important element of the EU light-touch regulatory regime on electronic money regulation.

Third, in order to avoid hampering technological innovation, both Electronic Money Directives adopts technological neutrality approach to define electronic money, i.e. it does not enter into technical specifications. The definition of e-money only states that it is “stored on an electronic device” in article 1 of the 2000 Directive and “electronically (including magnetically) stored” in article 2 of the 2009 Directive. Thus, both Directives are potentially applicable to all types of electronic money irrespective of the technology used, and does not pre-judge or exclude from its scope any forms of e-money that may arise in the future.⁴⁷

As world leaders announced in the Global Industry Leaders’ Forum: Enabling Tomorrow’s Digital World:

“To create a regulatory environment conducive to investment and innovation, regulation should be light-touch, predictable and stable.”⁴⁸

And

“Light touch regulation should focus more on overseeing licence compliance and anti-competitive behaviour as opposed to strictly controlling all operational steps undertaken by operators. For example, ensuring that a technology-neutral spectrum

⁴⁷ The Evaluation Partnership Limited, “Evaluation of the E-Money Directive (2000/46/EC) Final Report for the DG Internal Market The European Commission”, p. 75 @ http://ec.europa.eu/internal_market/payments/emoney/index_en.htm (8 January 2014).

⁴⁸ “Global Industry Leaders’ Forum: Enabling Tomorrow’s Digital World”, p. 2 @ <http://www.itu.int/ITU-D/partners/GILF/2010/documents/GILF-recommendations-en.pdf> (8 January 2014).

allocation policy is in effect – it is the operator who needs to assess the technology and market risk, not the regulator.”⁴⁹

Four, another important element which reflects the “light-touch regulation” approach of the new EU Electronic Money Directive 2009 is that electronic money institutions will be able to carry out mixed/hybrid business in addition to issuing electronic money.⁵⁰ This issue links with institutional regulation and functional regulation, please refer to 1.1 & 1.2 of this chapter for details.

Five, the waiver regime allows national regulators to exempt small e-money issuers from any or all of the requirements of according to article 8 (waiver) of the Electronic Money Directive 2000 and subsequently article 9 (optional exemptions) of the Electronic Money Directive 2009.

3.2 Is the regulation of Internet third party payment and Internet games virtual currency in China a light-touch regulation?

The author suggests that the regulation of Internet third party payment in China is not a light-touch regulation. Because the current licensing scheme imposed by the “Measures of Management on Non-Financial Institutions Payment Services” on Internet third party payment providers is too restrictive, since its minimal registration capital requirements are too high. See part 3.1.2 of chapter 4 of the thesis where the author has provided detailed analysis on this issue.

Also, the author suggests that the regulation of Internet games virtual currency in China is not a light-touch regulation either. Because, in the “Notice of Enhancing Regulatory Works on

⁴⁹ “Global Industry Leaders’ Forum: Enabling Tomorrow’s Digital World”, p. 3 @ <http://www.itu.int/ITU-D/partners/GILF/2010/documents/GILF-recommendations-en.pdf> (8 January 2014).

⁵⁰ The changes were summarised by the UK Financial Services Authority (FSA) @ <http://www.fsa.gov.uk/Pages/About/What/International/emoney/index.shtml> (8 January 2014).

Internet Games Virtual Currency” it does not adopt technological neutrality approach to define what “Internet games virtual currency” is. This non-technological neutrality approach is a heavy regulation which would potential hamper the development of technology and relevant market. See part 2.2.2 of this chapter for detailed discussion.

To sum up, the third lesson China could learn from the EU experience is to adopt light-touch regulatory approach and implement its components into China law. These components include reducing initial capital requirements for licensing, lessening limitation of investments, and incorporating technological neutrality approach and so on so forth.

4. Conclusion for this chapter as well as for the whole thesis

In the thesis, the author has systematically and comprehensively studied the working mechanisms of new electronic payment services in China, western regulatory theories on banking and financial sectors in relation to the regulation of the new electronic payment services, the regulation of electronic money in relation to new electronic payment services in the EU and UK, specific regulatory measures of the new electronic payment services in China, and lessons that China may learn from the western regulatory theories and the EU/UK regulatory experience. The author concludes the thesis by identifying the fundamental findings of the research:

First, both the western regulatory theories and the Chinese practice strongly justify that the new electronic payment services should be regulated in China.

Second, although, generally speaking, the current regulation on the new electronic payment services is still in a piecemeal and uncoordinated manner, China has made some good progress which deserves credits and praises. In some areas, e.g. the regulation of virtual currency, the valuable experience China has gained, and the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency” China has issued, has already set up

an example for the rest of the world on how to tackle specific regulatory issues arising from virtual currency which is already a global phenomenon.

Third, in terms of how to improve the current regulatory framework on the new electronic payment services, China needs to learn lessons and consider to do the following things:

- (1) The licensing scheme for the regulation of Internet third party payment providers is too restrictive, and it should be lessened.
- (2) As it has been examined in chapter 5 of the thesis, the current rules of virtual currency consists of more than 5 pieces of regulatory documents. They are three Notices, one Reply, and one Provisional Measures. China should converge those piecemeal rules into one piece of legislation which has a higher legal hierarchy than those Notices, Reply and Provisional Measures.
- (3) The regulator of Internet third party payment is the People's Bank of China which is a single regulator. However, multiple regulators are regulating Internet games virtual currency, which include the Ministry of Commerce, the Ministry of Culture, the State Administration for Industry & Commerce, the Ministry of Public Security, the Ministry of Information Industry, the Ministry of Education, the Ministry of Finance, the People's Bank of China, the Central Society Comprehensive Control Office and so on so forth.⁵¹ This multiple regulators phenomenon links to the piecemeal nature of the regulatory rules. China should replace these multiple regulators with a single regulator, so as to improve regulatory efficiency and avoid regulatory conflicts among so many different regulatory bodies.
- (4) According to the lesson 1 discussed in part 1 in chapter 7, China has learned the EU experience on institutional regulation and functional regulation in terms of regulating Internet third party payment and Internet games virtual currency. And China has already incorporated the lesson into relevant Measures, Notices and legislations. This should be regarded as a positive lesson. However, the author would like to provide a

⁵¹ See part 4 (in particular part 4.2 & 4.5) in chapter 5 of the thesis for the full list of the multiple regulators.

reminder that China should not stick in one single regulatory approach when dealing with forthcoming complicated challenges. China should be able to flexibly make good use of all kinds of regulatory approaches and strategies to meet its regulatory aims.

- (5) China should learn from the EU/UK experience and to make the definition of important legal terms, for example, the definition of “Internet games virtual currency”, as clear as possible and as wide as possible, so as to avoid wordings ambiguity and hindering technological innovations.
- (6) Ensuring the safety, stability and soundness of the new electronic payment services, protecting consumers, and promoting technological innovations are the three main aims of regulating the new electronic payment services. In general, China has primarily focused on achieving the first two aims, but has not addressed the third aim sufficiently. This insufficiency can be resolved by adopting light-touch regulatory approach and technological neutrality approach, and incorporating their components into the Chinese regulatory rules.
- (7) Last but not least, apart from regulating the legal and economic aspects of the new electronic payment services, China must not ignore ethical, moral and social aspects of the new electronic payment services. The new payment technologies can be used for both good and bad purposes. The good sides include make funds transfer quicker and easier, and make people’s life more convenient. There are also some bad sides. For example, young people may become mentally addicted to Internet games and virtual currency transactions which can cause severe family and social problems, such as violence, cheating, theft, and anti-social behaviours. The regulation of the new electronic payment services should assist in driving out the bad and encouraging the good.

Appendix

Full Text of the English version of the “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency” (translated by Wen Li)

On Friday 26th of June, 2009, the Ministry of Culture and Ministry of Commerce of the People’s Republic of China jointly issued a “Notice of Enhancing Regulatory Works on Internet Games Virtual Currency” to the public. From the stamp wordings of this Notice, it shows that the contents of this Notice was finalised on 4th of June, 2009, but it was not made available to the public until 26th of June, 2009.

After long discussion amongst academics, journalists and Internet games operators as well as games players. This Notice is setting up the keynote of the Chinese government’s attitude towards the regulation of virtual currency. Consequently as well as necessarily, this Notice will fundamentally influence the future development of the virtual currency and the Internet games, the virtual worlds and even the Internet as a whole.

Considering the significance of this Notice, the author is independently translating this Notice from Chinese to English by himself, and thereafter, providing some comments and observations and attempting to figure out the detailed outlines of what is going on in the “Regulation of Virtual Currency” Chapters.

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Appendix

Ministry of Culture and Ministry of Commerce of the People's Republic of China, "Notice of Enhancing Regulatory Works on Internet Games Virtual Currency"

(“文化部，商务部关于加强网络游戏虚拟货币管理工作的通知”)

All Departments (Bureaus) of Culture in all provinces, autonomous regions, and municipalities directly under the Central Government; Bureau of Culture and Bureau of Commerce in the Production and Construction Corps of Xinjiang; General Brigades of Administrative Law Enforcement of Culture Markets in Beijing, Tianjin, Shanghai, Chongqing, and Ningxia Hui Nationality Autonomous Region:

In recently years, with the rapid development of Internet games, Internet games virtual currency is widely used within business services provided by the Internet games. The Internet games virtual currency has promoted the development of Internet games industry; in the mean time, it brings new economic and social problems. The problems primarily reflect at three aspects: the first is the lack of protection of users' rights and interest; the second is the lack of supervision of market behaviours; the third is constant disputes arising from the use of Internet games virtual currency.

In order to regulate the business order of Internet games market, on the basis of the spirits of the "Provisional Stipulations of Internet Culture Management" (互联网文化管理暂行条例), the "Notice on Further Enhancing the Regulatory Work of Cyber Cafés and Internet Games" (关于进一步加强网吧及网络游戏管理工作的通知) (文市发[2007]10号), and the "Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games" (关于规范网络游戏经营秩序查禁利用网络游戏赌博的通知) (公通字[2007]3号), agreed by the People's Bank of China, the Notice of enhancing regulatory works on Internet games virtual currency is issued below:

1. Strictly Controlling Market Entry, Enhancing Main Body Regulation

Appendix

(1) The Internet Games Virtual Currency described in this Notice is a kind of virtual exchange instrument which is issued by Internet games operation enterprises, purchased by games users *pro rata* directly or indirectly with legitimate currency, existing outside games programs, stored in the form of electromagnetic recordings within servers provided by Internet games operation enterprises and represents in specific digital units. Internet games virtual currency is used to exchange Internet games services provided by issuance enterprises within specified range and specified time. Existence forms of virtual currency include pre-paid card, pre-paid amounts of money or points and etc in the Internet games, but do not include games equipments from the Internet games activities.

(2) Departments of culture administration must strictly control market entry, enhance the regulation on Internet games virtual currency issuance body and Internet games virtual currency exchange service provider body. Enterprises which are engaging “Internet games virtual currency issuance service” and “Internet games virtual currency exchange service”, must comply with the regulation of the “State Council’s Decision on Enacting Administrative Permission for Administrative Approval Projects Which are Necessarily Needed”(the State Council Order No. 412) (国务院对确需保留的行政审批项目设定行政许可的决定) (国务院第 412 号令) and the “Provisional Stipulations of Internet Culture Management” (互联网文化管理暂行条例)”. All enterprises which provide the two services specified above, must meet relevant requirements of setting up For-profit Internet culture units, and apply to culture administration departments in the enterprise’s local province for the initial approval, and thereafter, report to the Ministry of Culture of the People’s Republic of China for the final approval. “Internet games virtual currency issuance enterprise” means those Internet games operation enterprises which issue and provide virtual currency uses service. “Internet games virtual currency exchange service enterprise” means those enterprises which provide Internet games virtual currency exchange service platform for users. One enterprise is not allowed to engage in those two types of services at the same time.

(3) Enterprises which apply for the “Internet games virtual currency issuance service” are not only required to provide relevant materials according to laws and regulations, but also required to provide the following information in their business development reports: the form

Appendix

of virtual currency, the range of issuance, the purchasing price of one single unit virtual currency, redemption moods when services are terminated, users' purchasing methods (including cash payment, bank cards payment, Internet payment and so on so forth), protection measures of users' rights, protection measures of technology security and etc.

(4) Enterprises which operate "Internet games virtual currency exchange service" must comply with relevant stipulations on electronic commerce (platforms) services required by commerce governing bodies. When applying for this type service, except providing legally required materials, enterprises must provide the following information in their business development reports: models of services (platforms), users' purchasing methods (including cash payment, bank cards payment, Internet payment and so on so forth), protection measures of users' rights, binding situation between users' accounts and real-name bank accounts, protection measures of technology security and etc.

(5) Enterprises which are already providing Internet games virtual currency issuance or exchange services, must apply relevant business to culture administrative departments within three months after the issuance of this Notice; otherwise, culture administrative departments should investigate and punish in accordance with the "Provisional Stipulations of Internet Culture Management" (互联网文化管理暂行条例)". Approval documents of the culture administrative departments should be forwarded to the Ministry of Commerce of the People's Republic of China and the People's Bank of China.

2 Regulating Issuance and Exchange Behaviours, Preventing Market Risks

(6) Internet games operation enterprises should issue virtual currency in the right and proper amounts in light of their own business situation and products operation situation. It is strictly forbidden to maliciously issue virtual currency with the purpose of occupying pre-paid funds. The total quantity of virtual currency issued by Internet games operation enterprises must be quarterly reported to the enterprises' local provincial culture administrative departments.

Rewording this!!

Appendix

(7) Except purchasing the virtual currency with legitimate currency, Internet games operation enterprises are not allowed to provide virtual currency to users in any other way. When issuing Internet games virtual currency, Internet games operation enterprises must retain users' top-up records. The period of the record-retaining must not be less than 180 days from the date of top-up.

(8) The use range of the virtual currency is confined to exchange virtual services provided by the issuance enterprise itself, but not allow to the payment and purchasing of real products, nor exchange for any product and service provided by other enterprises.

(9) Internet games operation enterprises must adopt necessary measures as well as complain and adjustment procedures to protect users' lawful rights and interest; and enterprises must illustrate the measures and procedures clearly in notable positions of their websites.

(10) When disputes occur during the use process of the Internet games virtual currency, users must produce personal valid identifications which are identical to their registered identifications information. After verifying the users' identifications, Internet games operation enterprises must provide top-up and transfers records of the virtual currency, and deal with the disputes according to the complain and adjustment procedures. When users' lawful rights and interest are infringed, Internet games operation enterprises must positively coordinate taking evidence and disputes resolution.

(11) A 60-day notice should be given before Internet games operation enterprises plan to terminate the supply of their products and services. At the time of termination, for those virtual currency which has been purchased but not been used by users, Internet game operation enterprises must refund the users with legitimate currency or with other forms accepted by the users.

Appendix

Internet games continuously suspend for 30 days due to the cease of service access, technological malfunction and any other reasons caused by Internet games operation enterprises themselves, should be regarded as terminations.

(12) Internet games operation enterprises must not change a unit of Internet game virtual currency purchasing price; when new types of virtual currency are to be issued, relevant materials listed in Provision 3 of this Notice must be put on records in culture administrative departments.

(13) Those Internet games operation enterprises which do not support the exchange of Internet games virtual currency must adopt technological measures to ban the function that Internet games virtual currency transferring among users' accounts. Reference

(14) When providing Internet games virtual currency-related exchange services, Internet games virtual currency exchange service enterprises must stipulate users to use valid identifications to register with real names, and bind with domestic bank accounts which are identical with real-name registration information. Internet games virtual currency exchange service provider enterprises must retain users' relevant transaction records and accounts records for at least 180 days since the transaction day.

(15) Internet games virtual currency exchange service enterprises must establish liability inquisition system for illegal transactions and set up technological measures, strictly distinguish the true and false transactions information, and ban illegal transactions. Internet games virtual currency exchange enterprises must delete false transactions information and terminate exchange services in due course when knowing that some Internet games virtual currency is illegal acquired or being reported and has verified so.

Appendix

(16) Internet games virtual currency exchange service enterprises are not allowed to provide exchange services for people under 18 years old.

(17) Internet games virtual currency issuance enterprises and exchange service enterprises must adopt positive measures to protect the security of personal information. Enterprises must positively cooperate and provide relevant records when relevant departments conducting investigation according to laws and regulations.

(18) Internet games operation enterprises which provide virtual currency transfers services among users must adopt technological measures to retain the transfer records, and the retaining time of relevant records must not be less than 180 days.

3. Strengthening Market Supervision, Strictly Fighting Against Illegal and Criminal Activities by Using Virtual Currency such as Gambling

(19) According to requirements of the “Notice on Regulating Business Order of Internet Games and Prohibiting Engaging Gambling through Internet Games” (关于规范网络游戏经营秩序查禁利用网络游戏赌博的通知) (公通字[2007]3号) by the Ministry of Public Security and Ministry of Culture of the People’s Republic of China, all places must cooperate with public security authorities to severely punish Internet games with gambling characters, and severely fight against illegal and criminal activities which engage gambling with Internet games virtual currency.

(20) On the basis that users directly invest cash or virtual currency, Internet games operation enterprises must not distribute games equipments or virtual currency by sortition, staking, random drawing or any other way by chance.

Appendix

(21) Internet games virtual currency issuance and exchange services enterprises must positively cooperate with regulatory authorities to fight against “stealing accounts”, “private servers”, “plug-in” and so on with technological tools.

(22) For those “private servers” and “plug-in” websites of Internet games which provide online payment services and affirmed by the Ministry of Culture of the People’s Republic of China, the Ministry of Culture is obligatory to report to the People’s Bank of China.

4. Intensifying Efforts to Enforce the Law, Purifying Market Environment

(23) For those enterprises engaging Internet games virtual currency issuance and exchange services without permission, culture administrative departments above the provincial level must investigate and punish the enterprises according to the “Provisional Stipulations of Internet Culture Management” (互联网文化管理暂行条例)。

(24) For those Internet games virtual currency issuance and exchange services enterprises which violate the requirements in this Notice, culture administrative departments and commerce governing bodies must notify them to improve within time limit. If the improvement is not satisfactorily conducted within the time limit, relevant authorities will investigate and punish according to laws and regulations.

(25) Establishing regulatory working coordination mechanism on Internet games virtual currency, intensifying efforts to fight against illegal activities such as “stealing accounts”, “private servers”, “plug-in”, illegal profit-making, money laundering and etc. Different departments and authorities should termly communicate, coordinate with each other, timely report relevant situations, and fulfil the regulatory works of Internet games virtual currency within their own ranges of obligations.

Appendix

(26) The name of an Internet game virtual currency issued by an Internet game operation enterprise must not duplicate the name of the virtual equipment in that game. Regulatory rules on Internet games virtual equipments will be formulated by culture administrative departments of the State Council alone with other relevant departments and authorities.

Hereby Notices

The Ministry of Culture and the Ministry of Commerce of the People's Republic of China

4th June, 2009

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