

PUTTING THE CART BEFORE THE HORSE

E-Money and Regulation in the EU: Lessons from Japan. What Does the
Future Hold for E-Money in Europe?



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1 Introduction

Payment, according to one definition, is “The fulfillment of a promise; the performance of an agreement. A delivery of money, or its equivalent in either specific property or services, by a debtor to a creditor.”¹ Payments can be divided into two main categories - payments utilizing paper-based instruments (e.g. cash or checks) and electronic payments. Generally, electronic payments involve the transfer of monetary value digitally or electronically.²

The European Commission has described payments as the "oil in the wheels of the Internal Market". Therefore, the objective of the Commission is to achieve a Single Euro Payment Area, in which citizens and businesses can make cross-border payments as easily, safely and efficiently as they can within their own countries and subject to identical charges.³

While there are multiple ways to complete a payment, this thesis will deal with electronic payment methods in general and electronic money in particular. It will attempt to examine the current state of the electronic money market in Europe while drawing comparisons with Japan, a country that is often put forward as an e-money success story. It will also try to answer the question whether e-money can have a future in the European Union, while focusing on the past and present legislative efforts as well as other factors.

¹ As defined in West's Encyclopedia of American Law < <http://legal-dictionary.thefreedictionary.com/payment>> last viewed March 6, 2011

² Credit transfers and direct debits as well as credit and debit card transactions are examples of electronic payments.

³ EU Commission <http://ec.europa.eu/internal_market/payments/index_en.htm> last viewed March 6, 2011

1.1 E-Money: A Real World Example

In his article⁴ Jean J. Luyat details the case of Kozo Matsuoka, a Japanese information technology worker who travels regularly between Fukuoka to Tokyo. His cell phone is probably the most important item he takes on his trips. This is because it contains a contactless integrated circuit (or IC)⁵ chip programmed with data from three separate electronic money issuers. Kozo purchases prepaid electronic funds from Suica, Pasma and Edy⁶ on a regular basis. He can recharge or top up his prepaid accounts at recharging booths, normally found close to public transit stations or convenience stores. The purchase of prepaid funds can be recorded directly onto the IC chip in Kozo's phone or on a remote server. He commonly purchases between ¥40 000 and ¥60 000 of prepaid e-money each month. When he uses the funds the amount that he spends is rarely greater than ¥2 000⁷ at any given time. The average value of electronic money transactions in Japan was ¥732⁸ in fiscal 2008⁹, so Kozo's spending habits are in line with those of the average Japanese. He uses the electronic funds for public transport, vending machine purchases, to shop at convenience stores and other retail locations. As of March 2009 there were 480 000 terminals throughout Japan.¹⁰

Kozo can purchase a sandwich or pay for a tax by simply waving his mobile phone in front of an IC chip reader. A transaction completed this way takes less than a second, which is both expedient and convenient. He uses his Suica and Pasma accounts to pay for bus and train rides in the Tokyo area. The IC chip in his phone opens the automatic entry

⁴ Luyat (2009), pp 525-526

⁵ An IC chip is a tiny integrated circuit that not only stores but also processes information. It can be incorporated into payment cards, mobile phones and other devices. Contactless technology allows a reader device to communicate with the chip from a distance, without physical contact.

⁶ These e-money issuers are among the 8 major e-money issuers surveyed in the Bank of Japan (BOJ) Report on E-Money - Developments in Electronic Money in Japan during Fiscal 2008.

⁷ The current exchange rate as of 10.03.2011 is ¥115 to the Euro. Source: <http://www.xe.com>

⁸ BOJ Report on E-Money (2009), p 3

⁹ Fiscal 2008 runs from April 2008 - March 2009

¹⁰ BOJ (2009), p 2

and exit turnstiles, while the ticket cost is subtracted from the prepaid balance with the fare calculated based on the length of his trip.

In other words, the ease and convenience of electronic money have become an indispensable element of Kozo's everyday life. Beyond ease and convenience, there are other advantages as well. Kozo's Edy account is connected to an airline mileage reward program, so he earns mileage points while making purchases.

1.2 Subject Matter and Research Method

The example above illustrates that electronic money has grown to become a major method of payment in Japan. On the other hand, electronic money in the European Union has not been nearly as successful in replacing other types of payment.¹¹ In the EU as a whole there are only a limited number of fully licensed electronic money institutions (ELMIs) and the e-money volume remains low.¹² E-money services continue to be a fairly niche product and are used by a small fraction of consumers. The EU Commission's 2008 proposal for a new directive on electronic money states "electronic money is still far from delivering the full potential benefits that were expected".¹³ At the same time, the development of electronic payment services is considered important because it can contribute to reduced payment costs and economic growth.

With the above-mentioned details and the growing importance of electronic payment methods providing an incentive, this paper will explore the underlying factors as to why electronic money has been languishing as a method of payment in Europe, while it has been enjoying its current success in Japan. The European legislative framework will be surveyed in attempt to answer the question why the original E-Money Directive¹⁴ was ineffective in reaching its goals.¹⁵ Since Japan is a country that has enjoyed widespread use

¹¹ Acceptance and adoption of e-money in both Japan and Europe will be discussed in Section 2.2

¹² See EC *Proposal* COM(2008)627 final, p 2

¹³ *Id.*

¹⁴ Directive 2000/46/EC

¹⁵ As evidenced by its repeal and replacement in 2009 by Directive 2009/110/EC and the e-money market not meeting expectations. See Section 2.2.1

and acceptance of prepaid payment instruments¹⁶, the European E-Money Directive will be compared with the key legal provisions in Japan pertaining to electronic money. A question to be answered is whether the regulatory differences are responsible for the dissimilar prominence of e-money as a payment method in each of the two jurisdictions. Additionally, the paper will also analyze whether the adoption of recent legislative instruments such as the Payment Services Directive¹⁷ and the new E-Money Directive¹⁸ can be successful in their attempt to harmonize the payment services market and to spur the growth and wide acceptance of electronic money as a payment medium.

Existing literature in the form of magazine articles, books, and reports will be used in the quest to answer the above questions. Statistics from the European Central Bank, the Bank of Japan and other sources will be consulted. Further, the relevant legislative instruments will also be referred to and analyzed.

1.3 Structure

This thesis is organized in the following manner:

Chapter 2 attempts to illustrate what e-money is and why it is important as a means of payment. Then, it examines statistics from both Europe and Japan in an effort to compare the growth trends and adoption rates of e-money in each area. The chapter continues to evaluate the various factors, such as payment culture, technology, business strategies and legal environment that could account for the success of electronic money or the lack of it.

Chapter 3 investigates the impact of the regulatory environment on e-money development in the European Union. The original E-Money Directive is reviewed in detail. The review includes the Directive's background, the reasons for its adoption, its main features, and the achieved results weighed against the Directive's goals. The chapter concludes with a discussion of the regulatory problems pertaining to mobile network operators in Europe and the issues arising from PayPal's activities as a globally successful e-money issuer.

¹⁶ See Section 2.3.2

¹⁷ Directive 2007/64/EC

¹⁸ Directive 2009/110/EC

Chapter 4 discusses the central features of the Japanese regulatory framework. The emphasis in this chapter falls on the Prepaid Card Law, which regulated prepaid instruments in Japan for a period of 20 years. The chapter continues with the reasons for the Law's repeal and replacement and draws a comparison with the legislative regime in the European Union.

Chapter 5 contains an analysis of the Payment Services Directive and its effect on the European payment services market in general and on e-money in particular. Next, the new E-Money Directive is reviewed, chiefly with regard to the changes it introduces to the prudential framework in the EU. The chapter attempts to draw a comparison between the revised regulatory regime in Europe and that of Japan.

The thesis comes to an end with a summary of the main arguments and conclusions.

2 Electronic Money as a Payment Alternative

The first section of this chapter examines what electronic money actually is and how it can be defined. It looks at its advantages and disadvantages. The second section drills into the numbers to compare the acceptance and adoption rates of e-money in the European Union and Japan. The chapter concludes with an assessment of the factors that are accountable for the growth and adoption of e-money as a payment method.

2.1 E-Money Defined

Money in general takes on a number of roles in the realm of economic activity. It serves several purposes. It is a medium of exchange, because it is widely accepted in exchange for goods and services being sold by people. It is a store of value that can be put aside and used in the future. Finally it is a unit of account, providing a standard for comparing the value of different goods and services. By its nature electronic money includes all these functions. It can also be regarded as a cash alternative.¹⁹

The way electronic money works is that a prepaid card or account is first credited with electronic units denominated in the currency of the country in which the scheme is operating.²⁰ It is also technically possible to store currency in different denominations, and some schemes do advertise such services for customers traveling abroad.²¹ When a consumer makes a purchase, value is transferred from the consumer's account to the merchant via a retailer terminal or through an online transaction, approximating the manner cash is spent.

¹⁹ Recital 2 of the original EMD states that electronic money can be considered as an electronic surrogate for coins and banknotes

²⁰ Brindle & Cox (2010), p 267

²¹ See for example the Cash Passport service of Travelex at <<http://www.cashpassport.com/>> last viewed April 25, 2011

On a worldwide level there is still no unified definition of e-money. Different people and different administrative bodies have categorized and described electronic money in a variety of ways.²²

According to the EU Commission electronic money is:

A digital equivalent of cash, stored on an electronic device or remotely at a server. One common type of e-money is the 'electronic purse', where users store relatively small amounts of money on their payment card or other smart card, to use for making small payments.²³

In other words, stored-value payment instruments can be divided into two groups: those that store information on an integrated circuit (IC) chip built into the card and those that utilize a remote server as a storage medium. Further, "e-money can also be stored on (and used via) mobile phones or in a payment account on the internet".²⁴ The legal definition of electronic money in the EU has evolved after first being set in the original E-Money Directive²⁵ because it was subsequently amended by the new E-Money Directive.²⁶ The two directives and the definition of e-money will be discussed in more detail further below in the paper.²⁷

The Consumer Advisory Board of the Federal Reserve Board of the United States has described e-money as money that moves electronically. It primarily takes the form of card-based and computer-based products (often referred to as stored-value cards and network money, respectively) that are independent of a bank account. Electronic money can be used at a point of sale or directly in a person-to-person transaction without the intervention of an

²² *Id.*

²³ EU Commission < http://ec.europa.eu/internal_market/payments/emoney/index_en.htm > last viewed March 6, 2011

²⁴ *Id.*

²⁵ Directive 2000/46/EC, Article 1(3)(b)

²⁶ Directive 2009/110/EC, Article 2(2)

²⁷ See Sections 3.2 and 4.2

outside entity. It can be moved around or spent through telephone lines or computer networks.²⁸

Japan has taken a different approach altogether. It has sidestepped the question as to what is electronic money. Instead, it has elected to regulate prepaid vouchers, which could be either electronic or paper based.²⁹ It was not until recently that server-type prepayments were also grouped together with prepaid vouchers.³⁰

2.1.1 Advantages of E-Money

Having a suitable method of payment is vital to the development of business activity and electronic money is a method of payment that can be used in both online and offline settings. The development of trade and business activity can in turn lead to increased investments, new employment opportunities, enhanced competitiveness and economic growth in general.³¹ In other words, a quick and convenient payment medium such as electronic money can be advantageous by facilitating commerce at the retail level since consumers would be more likely to make a purchase if the transaction can be completed in a quick, easy and convenient way. This in turn will give rise to further economic benefits. Electronic money is deemed beneficial for multiple other reasons as well.

First of all, e-money can offer ease of use and simplicity not available with other payment methods. This was illustrated above in the case of Kozo Matsuoka. The ability to make a payment without entering PIN numbers and security codes can speed up both online and offline transaction and lead to increased trading volume and the introduction of new products and services. In the field of mobile commerce, for instance, GSM Europe contends that the take-up of new, innovative products and services is dependent upon the availability of simple payment mechanisms. Additionally, pre-payment options have

²⁸ Yang (2005)

²⁹ See generally Luyat (2009)

³⁰ See Nagashima Ohno & Tsunematsu (2009)

³¹ See Recital 2 of Directive 2000/31/EC on electronic commerce.

already played a key role in stimulating new mobile services and will be vital to the success of new 3G content offerings.³²

Second, electronic money is looked upon as a payment medium that is particularly suitable for micropayments³³ or where the use of credit or debit cards can be cumbersome or expensive. Not only can card transactions be difficult for consumers and merchants to complete, but the fees the merchant incurs can sometimes add up to more than the purchase amount itself. Sellers also have to deal with chargebacks³⁴ eating into their profits. In this way, card fees pose a threat to the development of online and mobile commerce.³⁵ Economists consider transaction costs as a form of economic friction - the decrease of economic friction will result in greater productivity.³⁶ Having a low cost payment method will enable vendors to offer low-ticket items, which could be especially beneficial to industries such as publishing, software and online gaming.

Third, e-money can be useful in distance selling commerce (online and mobile) by enabling users who are unable or unwilling to use credit or debit cards to complete purchase. Users may be reluctant to use credit/debit cards because they do not want to divulge their account details³⁷, for example. Or they may not be able to obtain a credit/debit card due to a lack of good credit history or a banking relationship. Persons under 18 are significant consumers of products and services purchased through online or mobile channels. Yet, they may not be able to obtain certain bank cards.³⁸ Furthermore, unbanked consumers in general can benefit if available e-money solutions offered the ability to transfer funds from person to person, as a substitute to using cash. This can be of

³² GSME *Response to Commission E-Money Consultation*, (2004), p 2

³³ An electronic transaction consisting of the transfer of a very small sum of money. See <<http://www.investorwords.com/3052/micropayment.html>> last viewed April 25, 2011

³⁴ A chargeback is when a buyer reverses a credit card payment for any reason, for example claiming that the payment was fraudulently made, dissatisfaction with the goods and services received, etc.

³⁵ Tripunitara & Messerges (2007), p 104

³⁶ Baddeley (2004), p 239

³⁷ By using a prepaid payment instruments consumers do not share bank account, credit or debit card details with the merchant. This reduces the risk of fraud, since only the prepaid funds are at risk.

³⁸ Mansour 2007, p 2

particular significance in developing countries where the penetration of banking services is low.³⁹

Lastly, it is expected that electronic money will have the capacity to reduce the production, storage and usage costs of cash (bank notes and coins) in the same way that convertible paper currencies reduced these costs for commodity based money (e.g. gold and silver). Nevertheless, it is unlikely that governments will have a more than a limited involvement in the issuance of e-money.⁴⁰

2.1.2 Disadvantages of E-Money

Despite its benefits, e-money has certain limitations. Regular cash does not automatically convert into e-money. The e-money user needs to find a recharging machine or a sales clerk with a POS terminal and either one has to be specific to the brand of e-money involved.⁴¹ A server-based account (such as PayPal) also requires extra steps to be funded. Subsequently, the user needs to remain aware of how much value remains on the prepaid account to avoid running out of funds at an inconvenient moment. One type of e-money cannot usually be converted into another and each one has its own peculiarities.⁴²

One of the biggest drawbacks of electronic money is that it is not universally accepted. It is distinct from fiat money because it is not considered legal tender and as a result, creditors are not obligated to accept it as a payment (while they cannot object to a payment in legal tender).⁴³ The ability to accept prepaid cards, for example, depends on the merchant's participation in the relevant card scheme. In the United Kingdom major card issuers (such as MasterCard and Visa) now provide prepaid cards that are branded with the logos of the card scheme and the issuer.⁴⁴ However, only merchants having a merchant

³⁹ This is demonstrated by the success of services such as M-PESA in Kenya, which is a mobile phone-based money transfer service. In three years, since 2007, it has attracted over 9.5 million customers, in a country with only 8.4 million bank accounts. For further details see: Tarazi & Breloff (2010)

⁴⁰ Baddeley (2004), p 241

⁴¹ Mainwaring et al. (2008), p 23

⁴² *Id.*

⁴³ Baddeley (2004), p 241

⁴⁴ Brindle & Cox (2010), p 266

agreement with the ability to accept cards belonging to the card scheme can receive payments with these prepaid cards. Most other prepaid card schemes belong to the category of proprietary closed systems⁴⁵ and can be used, for instance, only for public transport or on university campuses.⁴⁶ As their electronic money gains acceptance, issuers may begin marketing their e-money services for other uses. This is a trend seen in Japan, where retailer companies that initially focused on their own company group, began promoting electronic money use outside of it.⁴⁷

Another argument is that while electronic money has been advertised as a solution for privacy conscious consumers most often that is not the case. An e-money scheme can be either unaccounted - meaning that the electronic money circulates without transactions being recorded - or accounted. If a scheme is operating on an accounted basis it provides customers with a way to check their transaction history, online or otherwise.⁴⁸ Most e-money schemes, however, do not provide such anonymity.

Nonetheless, one would think that the pros of electronic money outweigh its cons and it should prove to be a viable payment option both online and offline. To further explore this, let us look at the statistics regarding e-money usage in the European Union and Japan.

2.2 Acceptance and Adoption - A Look at the Numbers

2.2.1 Europe

The role of electronic money remains marginal in the EU. It has not undergone the rapid growth that was originally foreseen despite its benefits over other types of payment methods.⁴⁹ There has been only a modest increase in the use of e-money over the years. The total value of outstanding electronic money balances was estimated at around 0.1% of banknotes and coins in circulation in December 2007, an increase of 0.04% from December

⁴⁵ A closed system is one where the holder of electronic money can purchase goods and services only from the issuer. In an open system, goods and services can be purchased from a number of participating merchants.

⁴⁶ Brindle & Cox (2010), p 266

⁴⁷ BOJ Report on E-Money (2009), p 3

⁴⁸ Brindle & Cox (2010), p 267

⁴⁹ ECB *Electronic Money Institutions* (2008), p 9

2000.⁵⁰ In 2008 there was a manifold increase in software-based⁵¹ e-money and as a result, total outstanding e-money measured as percentage against total outstanding currency jumped to 0.16%.⁵² A more telling indicator though of the general acceptance of electronic money is the number of transactions. The number of e-money transactions as percentage of all non-cash payments in the euro area was 0.3% in 2000, 0.8% in 2007 and 1.5% in 2009⁵³, exhibiting a trend similar to that of the outstanding e-money balances. The e-money market was growing in absolute terms, yet as a proportion of all cashless payments it remained stable between 2002 and 2007.⁵⁴ It appears that the growth rate has picked up in recent years but still the percentages are still exceptionally small.

The number of e-money issuers in Europe has trended up as well. Still, there are relatively few issuers using the passporting provisions of the E-Money Directive. The EMD Evaluation revealed there were 9 licensed ELMIs in 5 EU Member States with three additional in Norway. 72 entities in 7 Member States were registered as operating under a waiver of which 57 were found in the UK and the Czech Republic.⁵⁵ E-money was issued by traditional credit institutions in at least 15 Member States.⁵⁶ By 2007 it was estimated that there were 24 licensed e-money issuers in the EU in 7 Member States. 13 of those were based in the UK. The number of institutions operating under a waiver had grown to 94. Again, the Czech Republic and the UK accounted for the bulk of them - 77 altogether. As

⁵⁰ *Id.*

⁵¹ Refers to e-money products accessed through a computer that transfer electronic value over telecommunication networks such as the Internet.

⁵² Bank for International Settlements (BIS), <<http://www.bis.org/publ/cpss95.htm>> last viewed April 1, 2011

⁵³ ECB Statistical Data Warehouse

<http://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=169.PSS.A.U2.F000.IEM.Z00Z.NP.X0.20.Z0Z.Z> last viewed March 31, 2011

⁵⁴ *Id.*

⁵⁵ The Evaluation Partnership (TEP), *Evaluation of the E-Money Directive (2000/46/EC) Final Report* (2006), p 4, hereafter referred to as *TEP Final Report*

⁵⁶ *Id.*, p 38

regards institutions utilizing the so called "European Passport" was assessed at no more than 10, with most of those based in the UK.⁵⁷

The above numbers illustrate that there is an increasing interest in the European market for electronic money. Even though e-money usage can currently be labeled as insignificant compared to other payment methods it has begun growing at a faster pace. The number of ELMIs has been increasing as well, which could mean e-money could be on its way to fulfill its promise. Nevertheless, there are a number of factors that can be responsible for the take-up and development of electronic money. These will be dealt with in the next section. But first, let us compare the situation in the European e-money market with that of Japan.

2.2.2 Japan

Japan is often cited as a success story for electronic money. In fact, it is only second to Hong Kong in adopting stored-value digital payments for everyday transactions.⁵⁸ Moreover, e-money in Japan continues to exhibit remarkable growth. Both the total volume and value of transactions settled with electronic money in 2008 increased by 40% compared with the previous fiscal year.⁵⁹

The statistics reported by the Bank of Japan, however, do not track software-based e-money. Further, the BOJ figures are not, for most part, directly comparable with those provided by the ECB. Even so, the numbers for hardware-based products or prepaid cards give us a sufficient enough overview of the widespread use and growth of the e-money in Japan.

The value of outstanding electronic money as a percentage of coins and banknotes in circulation was comparable to that in Europe. E-money represented 0.10% of total cash in circulation in March 2008 and 0.11% a year later.⁶⁰ This shows that even in Japan the amount of outstanding electronic money is significantly less than the amount of outstanding

⁵⁷ ECB *Electronic Money Institutions* (2008), p 10

⁵⁸ Mainwaring et al. (2008), p 21

⁵⁹ BOJ (2009), p 3

⁶⁰ BOJ (2009), p 6

cash. Nevertheless, in a country with a population of 127 million⁶¹ there were 105 million e-money cards issued by the end of March 2009 (representing a year over year increase of 30.3%). E-money accounts built into mobile phones represented 12 million of the above number.⁶² To put these numbers in perspective there were 410 million debit cards issued as of December 2008 and 293 million credit cards as of fiscal year 2006. These figures show the significant penetration of electronic money instruments. What is more, in Japan there are 500 or so smart card services⁶³ and the number of terminals where e-money is accepted has also grown rapidly, reaching 480 000 in March 2009, with a year over year growth of 34%.⁶⁴

The statistics that really illustrate the widespread usage of e-money in Japan are those that show the number and value of transactions for different card payment instruments. While electronic money remains a payment method used mostly for small amounts - the average transaction value was ¥732 - the total value of settled transactions surpassed that of debit cards in fiscal 2008.⁶⁵ While credit cards were responsible for the bulk of card transactions in Japan or 75%, e-money represented approximately 18% of the total number of card transactions, a noteworthy achievement unto itself. In fact, the number of e-money transactions was greater than the volume of debit card purchases and ATM withdrawals combined.⁶⁶ In 2009 by contrast, card transactions in Europe accounted for 38.4% of all non-cash payments and electronic money payments for 1.1%.⁶⁷ Stated differently, the number of e-money transactions equaled only about 2.9% of the volume of card transactions.

⁶¹ *Id.*, supra note 60, BIS

⁶² BOJ (2009), p 2

⁶³ The Economist (2007), *A Cash Call*

⁶⁴ BOJ (2009), p 2

⁶⁵ *Id.*, p 8

⁶⁶ *Id.*

⁶⁷ ECB Statistical Data Warehouse, < <http://sdw.ecb.europa.eu/reports.do?node=1000001441> > last viewed April 2, 2011

A development that is seen in Japan and not yet encountered in Europe is the spread of contactless credit cards, which do not require authorization by signature or PIN.⁶⁸ Their use is similar to that of prepaid electronic money and they are sometimes referred to as "post-pay electronic money".⁶⁹ This goes to show that technology is helping credit cards to compete with electronic money. Other than the regulatory environment, technology is but one of the factors responsible for the varying degree of popularity and relative importance of various payment methods in different jurisdictions. These factors will be addressed in the next section.

2.3 Factors Responsible for the Growth and Adoption of E-Money

2.3.1 Payment Culture

It has been stated that the rapid success of e-money in Japan is partly due to "cultural attitudes and dense urban living".⁷⁰ It is a given that the payment culture and the payment habits of consumers in any country predetermine to a certain degree the type of payment methods that are used. Further, in order for consumers to change their payment behavior they would need to see the clear benefits of a new payment method - such as greater convenience, better security, privacy, etc.

One of the main differences between Japan and Europe is that the Japanese have a preference for cash payments⁷¹, while European consumers tend to use debit and credit cards more often and for smaller transactions⁷². A telling fact is that in 2009, the outstanding currency in circulation outside of banks was €5026⁷³ per person in Japan,

⁶⁸ BOJ (2009), p 7

⁶⁹ *Id.*

⁷⁰ Halpin and Moore (2009), p 567

⁷¹ See Mann (2002), p 1061

⁷² A comparison of ECB and BOJ figures reveals that on average credit and debit card transactions in Japan involve greater amounts than those in Europe.

⁷³ ¥601 738 equals €5026 at an exchange rate of ¥119.72/€ as of April 2, 2011

while only €2 339 per person in the Euro Area, with per capita GDP being in a similar range.⁷⁴

Taking into account that electronic money is a product that is considered a surrogate for coins and banknotes⁷⁵ and the Japanese predilection for cash it may be logical that stored-value cards will have a wider use in Japan and will experience faster growth than elsewhere. Moreover, Japan is a country with little street crime, so it is safe for Japanese adults to carry large amounts of cash, which they tend to do.⁷⁶ So, if for the Japanese it is common to carry cash amounts greater than ¥10 000⁷⁷, it may come naturally to hold prepaid electronic instruments of similar amounts.⁷⁸

It may also be argued that debit cards can be regarded as a substitute for cash to a degree.⁷⁹ Debit cards were adopted comparatively late in Japan⁸⁰ and as illustrated above⁸¹ debit card usage represents only a small share of card transactions. On the other hand, credit card payments have their own peculiarities.⁸² The Japanese preference for cash payments and the relative lack of payment substitutes in the form of card payments may have been a contributing factor to the growth and spread of e-money.

⁷⁴ BIS <<http://www.bis.org/publ/cpss95.htm>> last viewed April 1, 2011

⁷⁵ E-Money Directive, Recital 3

⁷⁶ Luyat (2009), p 531. See also Mann (2002), p 1061

⁷⁷ See Mann (2002), p 1061. ¥10,000 equals approximately €84

⁷⁸ See Luyat (2009), p 531

⁷⁹ A 2004 consumer survey in the US reported that 48.5% of debit card users reported that debit cards serve as a substitute for cash. See Borzekowski (2008), p 892

⁸⁰ Luyat (2009), p 531

⁸¹ See Section 2.4.2. See also BOJ (2009), p 8

⁸² There are several types of credit card transactions in Japan and the consumer must declare his choice of transaction at the time of purchase. The overwhelming majority (85%) are "ikkai barai" where the card issuer is automatically paid the full purchase amount at the end of the monthly card cycle. In this way "ikkai barai" approximates debit card use. The *credit* features of credit cards are relatively unattractive, because the payment schedule is prearranged and cannot be paid off sooner or later than scheduled. For more details see Mann (2002)

In contrast, debit cards are well established as a payment method in Europe. In 2009 cards with a debit function represented 66.4% of all payment cards in the EU.⁸³ Survey data show that while consumers still prefer to pay with cash for small amounts, they tend to reach for their cards as the value of the transaction increases. The younger the consumer, the more likely he or she is to use a payment card instead of cash.⁸⁴ Generally, there is a longstanding familiarity and trust associated with card use in the EU, which may help explain the lagging market for e-money. It remains to be seen whether consumer perceptions and payment habits will change in the future.

2.3.2 Technology

Technological developments are really important for the adoption of a payment method such as electronic money, because technology will affect the convenience and security of a payment method, attributes which in turn are necessary to gain consumer trust. For merchants and payment system distributors cost is the all-important factor. However, better security (in the form of reduced fraud potential), increased convenience (less time and labor consuming) and wider consumer acceptance will all result in lower costs.

One feature that is characteristic of e-money payments in Japan is the use of contactless payments via technologies such as NFC.⁸⁵ Contactless payment provides consumers speed and convenience absent in cash transaction with banknotes and coins. An electronic money payment operation can be completed in a fraction of a second.⁸⁶ The integration of payment functions into mobile phones (or *keitai* as their known in Japan) provides added convenience. This integration makes carrying additional payment cards redundant as many handsets take on the functions of cash, keys, credit cards and ID.⁸⁷ Moreover, the Japanese generally consider their phones secure and the handsets can be locked remotely in the event of loss or theft to protect the cash, credit and information on

⁸³ ECB, <<http://sdw.ecb.europa.eu/reports.do?node=1000001453>> last viewed April 2, 2011

⁸⁴ Bergman et al. (2007), p 2

⁸⁵ Halpin and Moore (2009), p 567

⁸⁶ Luyat (2009), p 532

⁸⁷ The Economist (2007), *A Cash Call*

them.⁸⁸ Contactless and NFC technology along with using mobile phones as payment instruments are only at a trial stage in Europe. There has been interest in NFC payments within the UK and trials conducted by the mobile operator O2 and the e-money issuer sQuid.⁸⁹ Currently, there are also efforts by Visa Europe and Wireless Dynamics Inc. to bring NFC payments to iPhone users. There are ongoing trials in Turkey and the UK and Visa Europe intends to engage its member banks and partner mobile operators in Italy, France, Poland, Spain, and Switzerland to further commercialize the service.⁹⁰ It remains to be seen whether these schemes will gain widespread consumer acceptance.

2.3.3 Business Strategies

It appears that the required prerequisites for an electronic money scheme to be successful are a sound business model and filling a niche that meets the needs of both consumers and merchants.

For example, PayPal is arguably the most successful online payment service in the world. It was founded in the US as a company in 1998 and has grown rapidly since and expanded throughout the world.⁹¹ PayPal's growth was initially based on filling a market niche as it concentrated on person to person (P2P) payments and payments in connection with online auctions.⁹² The United States is a country where checks are widely used for payments and there is no widely accessible payment medium for person to person (P2P) electronic payments.⁹³ PayPal was able to fill that gap by allowing its account holders to send money via the internet, email, telephone or text message without sharing financial information.⁹⁴

PayPal's growth was also linked to the success of eBay since it positioned itself as a convenient payment method for online auctions. eBay actually purchased PayPal in

⁸⁸ *Id.*

⁸⁹ Halpin and Moore (2009), p 567

⁹⁰ See Wireless Dynamic Inc. <<http://www.wdi.ca/news.shtml#news13>> last viewed April 2, 2011

⁹¹ Edwards (2005), p 179

⁹² Seese et al. (2008), p 243

⁹³ *Id.*, p 242

⁹⁴ Brindle & Cox (2010), p 378

2002.⁹⁵ PayPal has brought to consumers and merchants a flexible payment platform that allows integration into online auctions and web storefronts. This platform allows sellers to automatically fill in the payment order for the buyer and the payee is immediately notified once a payment is made. Further, PayPal also offers buying protection.⁹⁶

PayPal derives its revenues from fees charged to merchants for receiving payments and from surcharges on currency conversions. It does not charge for the issuance or redemption of electronic funds, even though some forms of funds withdrawal from a PayPal account may incur a fee.⁹⁷

By contrast, the success of stored-value cards in Japan comes from the implementation of e-money schemes by retailers and railway companies, not financial institutions.⁹⁸ These issuers do not normally generate income from payment transactions. Stored-value cards, however, do help improve the issuers' main business by creating convenience and efficiency.⁹⁹

For example, Suica has its origins as a train fare card for the JR East railway in Japan. It was implemented as a way to reduce ticket collector costs and increase efficiency at the turnstile.¹⁰⁰ Suica came into use in 2001 but it was not until 2004 that its wider payment function was launched. Railroad commuting is widely used in the densely populated urban areas in Japan and by adding a payment function to fare cards, the railways merely extended the cards' functionality.¹⁰¹ Moreover, the railway companies in Japan often serve as tenants and developers of the areas surrounding train stations. This gives them the leverage to extend the acceptance of their payment cards to stores and vending machines in those areas.¹⁰²

⁹⁵ *Id.*

⁹⁶ Seese et al. (2008), p 246

⁹⁷ See <<https://www.paypal.com/cgi-bin/webscr?cmd=p/gen/fees-outside>> last viewed April 3, 2011

⁹⁸ Luyat (2009), p 533

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.*, p 534

In a similar fashion, Japanese retail chains such as the Aeon group and others instituted stored-value cards in order to gather customer data and strengthen customer relationships.¹⁰³ The BOJ E-Money Report indicates that retailer companies, initially only focusing on providing e-money services within their group companies, began promoting usage outside their group.¹⁰⁴ Additionally, vending machine operators started to accept multiple brands of electronic money.¹⁰⁵

It becomes clear that electronic money can be successful when it plays a synergistic role to business activities outside the payment arena. This is demonstrated by the success of PayPal as payment method for online auctions and the growth of e-money in Japan when introduced by railways and retailer chains.

2.3.4 Regulatory Environment

The regulatory environment plays a crucial role in the development of any market sector. Companies need stability and certainty from a legal standpoint to be able to develop their business strategies. Regulation brings with it certain overheads, such as compliance costs and regulatory hurdles for businesses to overcome. These need to be factored into the business models of electronic money issuers. Therefore, with regard to electronic money, first there is a need for clarity where and to which businesses e-money regulation applies. Second, the regulatory requirements need to be proportionate to the risks they attempt to mediate. There is a fine line between necessary regulation in the interest of consumer protection and financial system stability, and regulation that is too stringent and stifles business growth and innovation.

Furthermore, as far as the European market is concerned, there is a need for consistency between the various jurisdictions. Consistency is needed if the objective is to achieve a single European market for financial services in general and e-money in particular, a market facilitating the provision of cross-border payment services. Differing prudential requirements between jurisdictions are a consideration that may weigh on an e-

¹⁰³ *Id.*, p 533

¹⁰⁴ BOJ Report on E-Money (2009), p 3

¹⁰⁵ *Id.*

money issuer's decision whether or not to expand to a more regulated jurisdiction. A decision not to expand can affect the economic viability of its money issuing business by hampering the achievement of economies of scale that can be attained by operating in more than one jurisdiction.¹⁰⁶

2.3.5 Other Considerations

For a payment method to be successful, however, it is also necessary that it reaches critical mass, wide acceptance and economies of scale. Undoubtedly, PayPal had a helping hand from eBay's popularity. In Japan, however, there were other factors at play that contributed to the success of e-money. Most importantly, standardization and accessibility of technologies have had a crucial role.¹⁰⁷ The contactless payment technology that has made a most vital contribution to this success is called FeliCa or Felicity Card.¹⁰⁸ It was developed by FeliCa Networks, a subsidiary of Sony and NTT DoCoMo (a primary MNO in Japan).¹⁰⁹ This technology was licensed to ensure compatibility between services and operators and then subsequent cooperation between operators and manufacturers of handset equipment.¹¹⁰ In addition, FeliCa provided integrated turnkey solutions and made investments amounting to €40,000,000 to ensure retailers had the ability to read mobile devices.¹¹¹

As a point of contrast, the early development of e-money in Europe was plagued by technological incompatibilities and competition between payment providers that hindered user acceptance. The case of Chipknip and Chipper illustrates that. The two companies were competing providers of smart card payment technologies that were launched in the Netherlands in the early 1990s.¹¹² The two systems were not compatible with each other. Consumer usage was minimal and remained low even after Chipper International decided

¹⁰⁶ ECB *Electronic Money Institutions* (2008), p 31

¹⁰⁷ Halpin and Moore (2009), p 567

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² Abrazhevich, et al. (2009), p 413

to discontinue operations in the Dutch markets and merged with Chipknip.¹¹³ In 2004, only 127 million transactions were made with Chipknip, compared to 1.25 billion made with debit cards.¹¹⁴

There was, however, an additional important factor for the Japanese success story in the e-money sphere and namely, the relaxation of financial rules allowing non-banks to provide financial services.¹¹⁵ This only confirms that the regulatory environment has an essential part to play, a part to be examined in greater detail in the chapters that follow.

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ Halpin and Moore (2009), p 567

3 Regulatory Environment in the EU

This chapter will explore and analyze the legislative regime in the European Union. Its first section contains a detailed analysis of the original E-Money Directive, which was instrumental in establishing the legal framework for electronic money in the EU. The second section of the chapter examines the issues arising from the application of the Directive to certain categories of e-money issuers such as mobile network operators (MNOs). The chapter closes with a case study of PayPal - a prominent e-money institution - that has been able to operate successfully in multiple jurisdictions.

3.1 Original E-Money Directive

3.1.1 Background

In contrast to other countries, such as the USA and Japan, European central banks began advocating in-depth regulation of e-money early on. In a 1994 report, the European Monetary Institute (EMI)¹¹⁶ urged that only credit institutions be allowed to issue e-money.¹¹⁷ The EU Commission had a different view and proposed a Directive on Electronic Money Institutions in an effort to prevent the formation of a fragmented regulatory framework for e-money at the national level that could prove harmful to the internal market and restrict competition and innovation in the payment sector.¹¹⁸ Some of the Commissions objectives with the proposed directive were: to facilitate the development of e-commerce, to create legal certainty, to encourage new market entrants (non-banks), and to stimulate competition and e-money product innovations.¹¹⁹

¹¹⁶ The EMI was the predecessor of the European Central Bank

¹¹⁷ ECB *Report on Electronic Money* (1998), p 1

¹¹⁸ Krueger (2002), p 1

¹¹⁹ *Id.*

The European Central Bank had substantial objections¹²⁰ and put forward a number of requirements in its 1998 Report on Electronic Money. The ECB had the following concerns: impact of e-money on monetary policy, protection of customers and merchants, efficient functioning of payment systems, stability of financial markets, protection against criminal abuse, among others.¹²¹ The report presented requirements for prudential supervision, solid and transparent legal arrangements, technical security, protection against criminal abuse, monetary statistics reporting, redeemability of e-money at par value, and ability of central banks to impose reserve requirements on e-money issuers.¹²² Further, the ECB reiterated the position of the EMI's 1994 Report that it is preferable to limit the issuance of e-money to credit institutions.¹²³

The E-Money Directive was finally adopted in September of 2000 and the implementation deadline was set for not later than 27 April 2002.¹²⁴ It was one of the first directives adopted in the field of payment systems.¹²⁵ It took, however, more than two years of protracted negotiations between the various stakeholders, and chief among them were the European Commission, the central banks of the members states and the European Central Bank (ECB).¹²⁶ In the end, consumer protection¹²⁷ and safeguarding the integrity and stability of the financial system¹²⁸ were among the main goals behind Directive's adoption. The advocates of better consumer protection succeeded in implementing the stricter provisions they wanted. Most of the ECB's proposals were incorporated into the final version of the Directive.¹²⁹

¹²⁰ *Id.*

¹²¹ ECB *Report on Electronic Money* (1998), p 1

¹²² *Ibid*, pp 1-2

¹²³ *Id.*, p 29

¹²⁴ Directive 2000/46/EC, Article 10(1)

¹²⁵ Weber (2001), p 300

¹²⁶ Krueger (2002), p 1

¹²⁷ Directive 2000/46/EC, Recitals 4, 9 and 17

¹²⁸ Directive 2000/46/EC, Recital 14

¹²⁹ Krueger (2002), p 3

The Directive as adopted only called for minimum harmonization and differences in the implementation at the national level arose.¹³⁰ Member States were given considerable latitude in transposing the main principles of the Directive, more so than other similar legal instruments.¹³¹ Member States had the option to waive some or all of the provisions of the E-Money Directive.¹³² However, if an e-money institution operated under a waiver, its registration could not be passported to other EU countries.¹³³

3.1.2 Central Features

In contrast to some countries outside of the EU, such as Australia, the United States and Japan, the EU did limit the issuance of electronic money to banking or similarly regulated institutions.¹³⁴ There is a common agreement among European policy analysts that issuing electronic currency is comparable to taking bank deposits.¹³⁵ The EMD creates a special category of a credit institution or "electronic money institution"¹³⁶ that is subject to special regulatory provisions. In this way, issuers of electronic money who have obtained the appropriate authorization in one Member State can in effect operate throughout the single market, possessing a so-called single passport. This was intended to foster the cross-border provision of electronic money services.¹³⁷

The evaluation of the E-Money Directive conducted by external consultants for the European Commission and the DG Internal Market observed significant differences in the national rules implementing the Directive. These differences could be observed primarily in three main areas: first, the implementation of the waiver; second, the interpretation of the definition, scope and applicability, and the existence or not of a customized set of rules

¹³⁰ Commission Staff Working Document on the Review of the E-Money Directive (2006) , p 7, hereafter to as *EC Working Document* (2006)

¹³¹ Weber (2001), p 301

¹³² Directive 2000/46/EC, Article 8(1)

¹³³ *Id.*, Article 8(2)

¹³⁴ Bollen (2007), p 17

¹³⁵ *Id.*

¹³⁶ See Directive 2000/28/EC, Article 1(1)

¹³⁷ Brindle & Cox (2010), p 386

regarding management, administrative and accounting procedures, internal control mechanisms, etc.¹³⁸

3.1.3 Analysis of Definitions

3.1.3.1 Definition of E-Money

The E-Money Directive defined electronic money as:

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.¹³⁹

There were several problems with this definition. Firstly, while the EMD was attempting to be technologically neutral in (i), this has resulted in an ambiguity and different interpretations. The term electronic device was not defined in the directive, and as a result it could include a wide range of devices. At the time of adoption, the most common applications of e-money were either smart cards with a built-in IC chip or a software wallet on the holder's PC.¹⁴⁰ If we take debit cards, for example, their monetary value is not stored on an electronic device or on the card itself, and whereas they serve as a means of payment they are not covered by the definition of e-money.¹⁴¹ E-money was assumed to be analogous to notes and coins in the physical world and as such payment had to take place by physical transfer of monetary units. The Directive envisaged that the electronic funds will be in the physical possession of the user.¹⁴² With the development of technology and mass communications, it became possible for payment services providers to remotely hold the customers' money, and simply reassign the funds to the merchant's account at the time of

¹³⁸ TEP *Final Report* (2006), p 5

¹³⁹ Directive 2000/46/EC, Article 1(3)(b)

¹⁴⁰ Reed (2007), p 281

¹⁴¹ Weber (2001), p 302

¹⁴² Reed (2010), p 916

payment.¹⁴³ Therefore, a point of contention was whether such payment services involved value "stored on an electronic device" and consequently, whether the EMD applied. This was of particular importance to mobile telephony providers as will be illustrated later on in this paper.

Secondly, part (ii) of the e-money definition led to varying national implementations.¹⁴⁴ This part, which does not allow issuance of e-money for payment less than its value, was added on the initiative of the ECB to prevent e-money institutions from issuing e-money at a discount and creating artificial value and in such a way potentially expanding the money supply in an uncontrollable way.¹⁴⁵ The UK authorities, for example, had expressed concern that this provision would legalize rather than inhibit credit creation by e-money institutions.¹⁴⁶ Other member states were worried that the inclusion of the clause would allow¹⁴⁷ e-money issued at a discount to fall outside the definition of electronic money and not be covered by the Directive. As a result, seven member states omitted the part stating "of an amount not less in value", including it instead as a substantive clause or requirement for e-money issuers.¹⁴⁸

Thirdly, criterion (iii) of the definition, whereby e-money "is accepted as a means of payment by undertakings other than the issuer" was also subject to interpretation and clarification. For example, Belgium replaced "means of payment" with "an instrument of payment" for better clarity; Germany specified that e-money is accepted as a means of payment without being legal tender. Most significantly, Estonian law stipulated that e-money should be accepted by at least one undertaking other than the issuer, and it must have a direct creditor/debtor relationship with customer. The goal of this was to make clear

¹⁴³ Reed (2007), p 281

¹⁴⁴ TEP *Final Report* (2006), p 48

¹⁴⁵ *Id.*

¹⁴⁶ Malte (2002), p 3

¹⁴⁷ TEP *Final Report* (2006), p 48

¹⁴⁸ *Id.*

whether prepaid products provided by mobile operators should be regarded as electronic money.¹⁴⁹

With consumer protection in mind some countries established a general maximum amount or purse limit that each e-money account or device could hold. This was intended to limit the potential losses to customers in the event the issuer became insolvent.¹⁵⁰ Additionally, certain member states introduced other, more general changes to the definition of e-money. These commonly added additional criteria with the intention to further clarify the definition.¹⁵¹ These varying implementations could not have helped the emergence of a single market for e-money payment services. It was pointed out that the purse limit, for example, was likely to have impact market development in countries where it was set at a low level. As a result, at least one company from such a country was considering obtaining a license elsewhere.¹⁵²

3.1.3.2 Definition of Electronic Money Institutions

As discussed, electronic money institutions are a subcategory of credit institutions.¹⁵³ Nevertheless some sources have indicated that Member States have, in fact, adopted two separate approaches in defining ELMIs - one approach regards them as a subcategory of credit institutions and the other as a separate category of organization with a license to issue e-money. The Evaluation of the E-Money Directive concluded that these differences were primarily semantic.¹⁵⁴ Differences did exist, however, in the manner rules pertinent to banks were applied to ELMIs. In most EU countries separate rules for e-money institutions did not exist, and they were subject to the rules applicable to traditional credit institutions.¹⁵⁵ This, on the other hand, may have resulted in rules that are two burdensome

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*, p 49, The limits were set as follows: Austria - €2,000; Denmark - €300; Estonia - €300; Greece - €300; Ireland - €5,000; UK - £1,000.

¹⁵¹ *Id.*

¹⁵² *Id.*, p 51

¹⁵³ Directive 2000/28/EC, Article 1(1)

¹⁵⁴ TEP *Final Report* (2006), p 51

¹⁵⁵ *Id.*, p 52

for the successful development of the e-money market. In Germany, for instance, ELMIs are treated just like banks, having to submit monthly balance sheets to the Bundesbank. Additionally, the managing directors of an ELMI were required to have previous experience in leading a bank. Last but not least, an application for an ELMI license was to be accompanied by ex ante proof of profitability of the business model.¹⁵⁶

Such strict rules may have stifled the development of an emerging e-money market dependent on technological innovation. Some stakeholders have even considered the rules and regulations applicable to ELMIs in the UK as burdensome. This is so even while a "specialist sourcebook" or lighter and more targeted regulations have been set up in the UK for ELMIs as a result of continued dialog between the competent authorities and the industry.¹⁵⁷

3.1.4 Prudential Framework

The EMD created a legal framework that allowed non-banks to become e-money issuers by being treated as a subcategory of credit institutions. Both types of entities are allowed to issue e-money and it was assumed that this approach will encourage competition by permitting new non-bank market entrants into the market.¹⁵⁸ In order to maintain a level playing field different prudential requirements applied. While the supervisory regime for ELMIs was made lighter notably in the area of reduced initial capital requirements and the non-applicability of certain rules relevant to credit institutions, this was compensated by restrictions in other areas, such as restriction on business activities, limitation on investments and a requirement outstanding e-money to be backed at all times by liquid assets.¹⁵⁹ In essence, the pillars of the regulatory framework set up by the EMD are the following five areas: the capital and reserve requirements, the limitations on activities, the limitations on investments, redeemability of electronic money and the principles of sound and prudent operations.

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*

¹⁵⁸ Weber (2001), p 304

¹⁵⁹ Directive 2000/46/EC, Recitals 11 and 12

When conducting the Evaluation of the E-Money Directive the consultants reviewed how the above requirements were implemented at the national level and queried national authorities, non-bank money issuers, banks and mobile network operators (MNOs) as to their opinions regarding the suitability of the regulations.

3.1.4.1 Limitations on Activities

Firstly, an important restriction on e-money issuers is that they are not allowed to engage in business activities that are not closely related to the issuance and administration of e-money. The EMD specifically prevents ELMIs from granting credit.¹⁶⁰ Further, they are not allowed to have holdings in undertakings engaging in business activities extraneous to e-money issuance.¹⁶¹

National authorities from all member states have reported that the restrictions on activities have been imposed without changes.¹⁶² While surveyed banks agreed that the conditions are appropriate in order to ensure stability of the payment systems, both e-money issuers and MNOs thought the restrictions should be relaxed. E-money issuers had expressed concern that the inability to grant credit would place them at a disadvantage. The feedback of MNOs was that the conditions were too restrictive and discouraged the development of the mobile sector, in effect preventing mobile operators from issuing e-money.¹⁶³ There was a general apprehension that new entrants would be discouraged, competition restricted and innovation hindered.

3.1.4.2 Capital and Reserve Requirements

Secondly, ELMIs are required to have not less than €1 million of own initial capital. Further, the own funds of money issuers should not fall below that amount.¹⁶⁴ Another important requirement relative to reserves is that the own funds of ELMIs must be at least

¹⁶⁰ *Id.*, Article 1(5)

¹⁶¹ *Id.*

¹⁶² *Id.*, p 57

¹⁶³ *Id.*, p 55

¹⁶⁴ *Id.*, Article 4(1)

2% of the aggregate e-money issued at all times.¹⁶⁵ For instance, if an issuer maintains only the minimum €1 million own capital, it can issue a maximum of €50 million of e-money.

Some Member States had chosen to increase the initial capital requirement from €1 million to €1.2 million in Hungary, €2.2 million in France and €3 million in Greece.¹⁶⁶ Even the €1.0 million capital requirement was last viewed as too high by the majority of non-banks and MNOs surveyed as well as some national authorities. The main argument was that the requirements were not proportionate to the risks.¹⁶⁷ Some of the concerns were that small e-money issuers could have difficulties transitioning to fully fledged ELMIs and the use and development of e-money could be impacted.¹⁶⁸

3.1.4.3 Limitations on Investments

Thirdly, e-money issuers are obligated to maintain a 100% float, which means that their investments cannot amount to less than the financial liabilities related to electronic money.¹⁶⁹ Additionally, these investments have to be in highly liquid, low risk assets.¹⁷⁰

The limitations on investments were transposed uniformly across the member states with some differences in the details, in particular with regard to Article 5(4) EMD, stating that Member States shall impose "appropriate limitations" on the market risks ELMIs may incur from the permitted investments.¹⁷¹ In the stakeholder survey there was again a clear division between the responses of banks and those of ELMIs and MNOs. Banks believed that the current limitations are appropriate, while non-bank e-money issuers and MNOs held that the limitations are too restrictive, even more so than those imposed on banks. There was a call for more flexibility. It was also suggested that the restrictions created unnecessary administrative costs and limited the development of the market.¹⁷²

¹⁶⁵ *Id.*, Article 4(2)

¹⁶⁶ TEP *Final Report* (2006), p 55

¹⁶⁷ *Id.*, p 54

¹⁶⁸ *Id.*

¹⁶⁹ *Ibid*, Article 5(1)

¹⁷⁰ *Id.*

¹⁷¹ *Id.*, p 56

¹⁷² *Ibid*, p 54

3.1.4.4 Redeemability

Fourthly, the EMD stipulates that e-money must be redeemable at par value free of charges other than those strictly necessary to carry out the operation. The minimum threshold for redemption cannot exceed €10.¹⁷³

With regard to redeemability, all Member States implemented the obligation for the issuer to redeem e-money at par value and free of charges other than those strictly necessary to carry out the operation. Several countries chose to lower the minimum threshold for redemption to as low as €2 in the case of Hungary.¹⁷⁴ In the conducted survey both banks and national authorities agreed that the redeemability requirement was appropriate. Non-bank e-money issuers expressed a concern that the requirement could pose problems, for example with gift vouchers and corporate incentive products. All of the queried MNOs stated that redeemability is inappropriate in the context of mobile operators, too complex in practice and associated with high administrative costs.¹⁷⁵

3.1.4.5 Sound and Prudent Operations

Last but not least, the Directive contains guidelines as to the sound and prudent operation of e-money institutions.¹⁷⁶ They involve far-reaching regulations similar to those applicable to the banking sector and include topics such as the reputation and experience of management, sound administrative and accounting procedures, prudent supervision and internal control.¹⁷⁷

When it comes to sound and prudent operations, as discussed in 3.2.3 above there were differences in the national implementations with regards to how bank rules applied to electronic money issuers. It was suggested that strict rules, such as instituted in Germany, for instance, may have stifled the development of the emerging e-money market dependent on technological innovation. The Evaluation of the EMD concluded that the application of

¹⁷³ *Id.*, Article 3

¹⁷⁴ *Id.*, p 56

¹⁷⁵ *Ibid*, p 55

¹⁷⁶ *Id.*, Article 7

¹⁷⁷ Weber (201), p 306

the same set of rules to ELMIs as to traditional credit institutions may not sufficiently reflect the specific risks resulting from the activities of e-money issuers. Customized sets of rules such as the "specialist sourcebook" in the UK appeared to be more appropriate and encouraged competition and new market participants.¹⁷⁸

3.1.4.6 Waiver Regime

Under the waiver regime member states were allowed to waive the application of some or all of the EMD's provisions to electronic money institutions. In order for an e-money issuer to qualify for a waiver the following conditions should be met: the maximum storage amount or purse limit should not exceed €50 and either a) total e-money float size of the institution does not usually exceed €5 million and never exceeds €6 million, or b) the electronic money issued is accepted as a means of payment only by the issuer's subsidiaries, or c) the e-money issued is accepted only by a limited number of undertakings (which are within a limited local area, or in a close financial and business relationship with the issuer).¹⁷⁹ In this way waived institutions could benefit from less stringent regulations, however, they could not utilize the single passport provision to conduct activities in other Member States.

As regards the transposition of the waiver into the national legislations there was significant variability both in term of the criteria and process for granting a waiver, and the EMD provisions which can be waived.¹⁸⁰ In the EMD Evaluation it was noted that six Member States had not implemented the waiver and five had implemented only some of the waiver criteria.¹⁸¹ Additionally, among those Member States who had implemented all criteria, eight had made changes to one or more of them or had imposed additional requirements.¹⁸² The process for granting a waiver differed as well, with some countries granting the waiver automatically if the conditions were met, while others required a

¹⁷⁸ *Id.*, p 86

¹⁷⁹ E-Money Directive, Article 8(1)

¹⁸⁰ EC *Working Document* (2006), p 8

¹⁸¹ TEP *Final Report* (2006), p 60

¹⁸² *Id.*

formal application.¹⁸³ There were also wide variations as to which provisions of the E-Money Directive were waived. For example, seven member states exempted institutions to which the waiver regime applied from all requirements applicable to ELMIs. The only requirement for such institutions usually involved reporting their activities and the amount of outstanding e-money liabilities to the regulators annually or semiannually.¹⁸⁴ In five Member States the authorities decided on a case by case basis which provisions of the prudential framework were to be waived, while respecting the principle of proportionality and equal treatment.¹⁸⁵ In other countries, institutions operating under a waiver had to comply with "certain well-defined parts of the regulatory and supervisory framework".¹⁸⁶

The Commission observed that there was an inconsistent application of the waiver regime between Member States, which could lead to competitive distortions within national borders. It needs to be noted that in the existence of waivers more new players had entered the market¹⁸⁷ However, if the waiver rules were applied in a more consistent manner it would mean that the ELMI regulations would be relaxed in Member States who have a stricter policy toward waivers or do not utilize waivers altogether. This in turn would give rise to regulatory and level playing field concerns.¹⁸⁸ The Commission's conclusion was that a better course of action would be to clarify the scope of the E-Money Directive and relax its core requirements in order to reduce the reliance on waivers.

3.1.4.7 Prudential Framework - Recap

Based on the aforesaid surveys it appears that all five areas of the regulatory framework with respect to electronic money issuers have imposed requirements and limitations that may have been unnecessary strict and onerous relative to the risk involved for the consumer and the stability of the monetary system. As mentioned previously, the EMD was a minimum harmonization directive and Member States had the option to impose

¹⁸³ *Id.*, p 61

¹⁸⁴ TEP *Final Report* (2006), p 62

¹⁸⁵ *Id.*

¹⁸⁶ *Id.*, Germany is prominent example.

¹⁸⁷ EC *Working Document* (2006), p 6

¹⁸⁸ *Id.*

stricter regulations. In fact, in many countries regulators did not see a benefit in lesser regulation for e-money issuers. Further, the Directive allowed Member States with a traditionally restrictive regulatory policy toward e-money to maintain it, by using for example, waiver conditions and a broad definition of e-money.¹⁸⁹ The differences in the national implementation of the Directive's provisions, with some member states instituting much stricter rules than required, led to a fragmentation of the market with the end result that there were few new entrants into the e-money market, very few issuers operating at a pan-European level, and in general, a low adoption rate for e-money among consumers.

Despite its drawbacks the EMD became the foundation of e-money regulation in Europe. The next part of this thesis will examine the results the Directive achieved compared to the objectives that had been set.

3.1.5 Objectives vs. Results

Whether the EMD was able to achieve its objectives is a matter of opinion. In their Evaluation¹⁹⁰ of the Directive the consultants concluded that "to a certain extent" most of the objectives were met.¹⁹¹ On the other hand, there were significant shortcomings with the regulation of electronic money and the development of the e-money market in Europe was lagging, which prompted an overhaul of the Directive. First and foremost the scope and applicability of the Directive were subject to interpretation. Moreover, there was an apparent disparity between the prudential requirements and the perceived risks, to which ELMIs and the consumers were exposed.¹⁹²

The E-money Directive had five original objectives¹⁹³ delineated below.

¹⁸⁹ Malte (2002), p 4

¹⁹⁰ See TEP *Final Report* (2006)

¹⁹¹ EC *Working Document* (2006), p 9

¹⁹² *Id.*

¹⁹³ *Id.*

3.1.5.1 Create legal certainty and thereby encourage competition and contribute to the development of electronic commerce.

As regards legal certainty, the EMD did establish a regulatory framework and did achieve a degree of legal certainty. Nevertheless, questions remained. In particular, there were questions as to how that framework would apply with respect to certain schemes and certain issuers.¹⁹⁴ There was not sufficient clarity whether the definition of e-money applied to certain account-based schemes and electronic vouchers. Further, the interpretation of the Directive was problematic with respect to certain issuers such as mobile network operators and transport providers.¹⁹⁵ The biggest issue was the prohibition on activities not related to e-money issuance, which left MNOs and transport providers unable to provide payment services if they were classified as e-money issuers. This topic will be dealt with in more detail below.

3.1.5.2 Assist electronic money in reaching its full potential and avoid hampering technological innovation.

In their Final Report on the E-Money Directive the consultants have noted that it has remained technologically neutral, however, it is not clear to what extent the development of new technologies have been encouraged or hindered.¹⁹⁶ Additionally, the Commission states that any uncertainties over the applicability of the legal framework come as a result not of the electronic device used, but of the nature of the product and the issuer.¹⁹⁷ Nevertheless, as already discussed previously, at the time the directive was drafted it was envisaged that electronic money will primarily be stored on devices in the physical possession of the consumer. Network solutions such as the popular payment service provider PayPal and payment services offered by MNOs were not foreseen, which later resulted in regulatory difficulties.

¹⁹⁴ *Id.*

¹⁹⁵ *Id.*

¹⁹⁶ TEP *Final Report* (2006), p 75-76

¹⁹⁷ EC *Working Document* (2006), p 9

3.1.5.3 Preserve a level playing field between e-money issuers and other credit institutions.

The Evaluation of the Directive has concluded that while the EMD generated competition between banks and ELMIs, it was very controversial whether this competition took place on a level playing field. There were questions in regard to the appropriate treatment of the prepaid services of MNOs.¹⁹⁸ Additionally, as demonstrated above, one of the biggest concerns was that the prudential framework for electronic money institutions was too strict. It could have been difficult for small e-money issuers operating on a waiver to comply with the substantial initial and ongoing capital requirements in order to request a license and transition to full-blown ELMIs. Only institutions operating as fully licensed ELMIs can benefit from passporting their license to other Member States.

3.1.5.4 Ensure the stability and soundness of e-money issuers in order to safeguard consumer interests.

The Commission noted that the E-Money Directive was successful in ensuring the stability and soundness of e-money issuers. No cases of insolvency, fraud or harm to consumers were recorded.¹⁹⁹ In light of this, there was no need to impose a stricter regime, and on the contrary, many stakeholders considered parts of the regulatory framework disproportionate to the risks arising from the activities of ELMIs. Specific areas of regulation that could be reconsidered were the combination of ongoing own funds requirements and limitations of investments, certain national interpretations of the restriction of activities and requirements to ensure sound and prudent operation of ELMIs.²⁰⁰ Consequently, a more risk based approach could be implemented without having a negative impact the adequacy of consumer protection or the stability of issuers.

¹⁹⁸ *Id.*

¹⁹⁹ *Id.*, p 10

²⁰⁰ *Id.*

3.1.5.5 Facilitate access by e-money issuers across Member States, contributing to the free movement of capital and to the freedom of cross-border services.

As regards to the passporting provisions of the Directive, the Commission came to the conclusion that they were seen as sufficiently facilitating cross-border activity and provided a solid foundation for the future integration of the market. The fact that only three ELMIs had utilized the single passport as of the date of the report was due to the general state of the e-money market and not to administrative obstacles.²⁰¹ Nevertheless, the passporting regime was seen as inferior to that applicable to credit institutions and subject to review. The EMD specifically exempted certain banking directive provisions from applying to ELMIs.²⁰² This meant that ELMIs setting up branches in other Member States could be made subject to additional exemptions or capital requirements.²⁰³

3.2 The Case of Mobile Network Operators

Arguably, the EMD has been most controversial with regard to the national implementation and interpretation of its applicability to hybrid issuers.²⁰⁴ The term hybrid issuers refers to e-money schemes where the undertaking involved may issue electronic money but in fact its core business is unrelated to e-money issuance..²⁰⁵ Mobile network operators are a case in point. As previously discussed, the Directive attempted to be technologically neutral and therefore, e-money was defined in broad terms, at a time when network or server storage of funds was not envisaged. In the meantime, technology has evolved, the mobile communications sector has grown at a rapid clip²⁰⁶ and m-commerce represents an ever larger share²⁰⁷ of the total e-commerce volume. The total value of

²⁰¹ *Id.*

²⁰² E-Money Directive, Article 2(2)

²⁰³ TEP *Final Report* (2006), p 89

²⁰⁴ *Id.*, p 65

²⁰⁵ *Id.*

²⁰⁶ Mansour (2007), p1

²⁰⁷ See Tsurulnik (2010), *Mobile payments market quadruple in the next five years.*

payments via mobile phone for digital and physical goods, money transfers and near field communication transactions (NFC) reached \$170 billion in 2010 on a worldwide basis.²⁰⁸

The broadly formulated definition of electronic money in the E-Money Directive led some member states to impose the EMD regulatory framework on MNOs who were allowing customers to use the prepaid float of their accounts to purchase third party products or services.²⁰⁹ Multiple problems resulted from this.

The first problem area was that the Directive restricted the activities of e-money issuers to only those activities ancillary to e-money issuance.²¹⁰ Further, since only credit institutions or ELMIs were allowed to issue e-money²¹¹, MNOs would have to seek ELMI authorization. As a result, MNOs would not be able to continue to engage in their traditional business and namely the provision of mobile telecommunication services. As a stopgap measure, it was suggested by the Committee of European Banking Supervisors for MNOs to set up subsidiaries with the purpose of managing e-money activities.²¹² Nevertheless, this was a cumbersome solution and would have subjected MNOs to liquidity restraints and other adverse effects.²¹³

A typical example of the above predicament was when the UK Financial Services Authority (FSA) attempted to regulate MNOs according to the EMD and required that they obtain authorization as e-money issuers in the year 2003.²¹⁴ The companies could either choose to get licensed as ELMIs and quit their telephony business or conversely decide not seek ELMI authorization. In the end, the UK companies chose to continue business as usual and defied the FSA, actively disobeying the law. The FSA however, then backed

²⁰⁸ *Id.*

²⁰⁹ See *The New Cash: Paying via Mobile Phone*, < <http://www.euractiv.com/en/financial-services/new-cash-paying-mobile-phone/article-136908>> last viewed March 29, 2011

²¹⁰ E-Money Directive, Article 1(5)

²¹¹ *Id.*, Article 1(4)

²¹² EC *Working Document* (2006), p 10

²¹³ Mansour (2007), p 4

²¹⁴ Reed (2010), p 912

down and adopted a wait-and-see approach in expectation of the future review of payment services regulations in the EU²¹⁵ in the form of the Payment Services Directive (PSD).

The second problem area was the redeemability requirement²¹⁶ as already discussed above. If MNOs were to be regulated as ELMIs under the E-Money Directive, prepaid phone credit would have to be redeemable at par value.²¹⁷ It is generally accepted that prepaid phone credit is not redeemable and the customer cannot obtain monetary value for the unused portion of the credit.²¹⁸ It has been argued that in order to implement redeemability of credit, MNOs would have to introduce a two way payment system, something which could jeopardize the liquidity reserves of network operators.²¹⁹ Further, such a system would most likely be associated with increased administrative costs and lead to increased consumer prices, having a negative impact on the industry as a whole as well as its future development.²²⁰ In this line of reasoning, it would appear that the other elements of prudential framework applicable to ELMIs, such as capital and reserve requirements, limitations on investments would similarly put the MNOs' business model at risk.

Due to the above-mentioned issues, the EU Commission was compelled to review the applicability of the EMD to mobile network operators. It launched a consultative process and in 2005 came out with a Guidance Note²²¹ on the application of the Directive to mobile operators. The Commission observed that there was no evidence showing harm to consumers or to the stability of the payment system resulting from the issuance of e-money by MNOs.²²² Further, "it would appear difficult to justify the imposition of all elements of the Directive (including the redeemability requirement and a limitation on investments)

²¹⁵ *Id.*, p 913

²¹⁶ See Mansour (2007), p 3. See also EMD, Article 3

²¹⁷ E-Money Directive, Article 3

²¹⁸ Mansour (2007), p 3

²¹⁹ *Id.*

²²⁰ *Id.*

²²¹ Application of the E-Money Directive to Mobile Operators - *Guidance Note* from the Commission Services

²²² EC *Guidance Note*, p 3

from a 'proportionality' point of view".²²³ The Commission went on to clarify that in order to determine whether a hybrid institution is engaged in e-money issuance, the payment relationship between the customer and the third party should be analyzed. The EMD should apply if: a) there is a direct transfer of e-value (e.g. between mobile handsets) and b) the hybrid institution acts as an intermediary and there is a direct debtor-creditor relationship between the customer and third party merchant.²²⁴

Despite the Commission's guidance there has been much uncertainty and controversy over the application of the E-Money Directive to MNOs at the national level. Some Member States (Czech Republic, Denmark, Estonia, Finland, and UK) followed the EC Guidance Note and adopted the principle that the EMD did not apply if there was no direct debtor-creditor relationship between the customer and third party merchant.²²⁵ Other Member States (France, Germany, the Netherlands, Poland and Portugal) reported that the situation was unclear and they were not applying the EMD to MNOs while awaiting further guidance. All MNOs in Austria were regulated under the banking directives because they had obtained banking licenses and therefore the EMD did not apply.²²⁶ Belgian authorities did not follow the EC Guidance Note and held that all prepaid schemes should be considered e-money. No hybrid e-money issuers existed at the time in Belgium and the Belgian regulators expected further clarification.²²⁷ Obviously these national differences had a negative effect on the single market for e-payments and the legislative framework was in great need of clarification. The situation was resolved with the enactment of the Payment Services Directive (PSD), which will be addressed later on in the paper.

3.3 Comment on PayPal

As already discussed in Section 2.3.3 PayPal is often put forward as an example of a successful e-money issuer on a worldwide basis. The company stands out as the single e-

²²³ *Id.*

²²⁴ *Id.*, p 4

²²⁵ TEP *Final Report* (2006), p 65

²²⁶ *Id.*

²²⁷ *Id.*, p 66

money issuer that has attained a substantial EU-wide market²²⁸ up until now. Yet, PayPal's story in Europe is indicative of the shortcomings of the original E-Money Directive. I would argue that the success of PayPal in the EU is not due to the regulatory environment as framed by the Directive, but in spite of it. With PayPal's fortunes being largely tied to the captive online auction market of eBay and its success²²⁹, the company has been able to adapt to the regulatory framework of multiple jurisdictions.

After the adoption of the original E-Money Directive in Europe, a question arose as to the status of account-based schemes such as PayPal.²³⁰ Namely it was debatable whether PayPal should be considered an electronic money institution for the purposes of the directive. This is because it can be argued that PayPal does not issue money as stipulated in the e-money definition of the Directive, instead money is withdrawn from a PayPal user's credit card or bank account and is then stored in the user's PayPal account. In this way PayPal resembles more closely a credit institution, not an e-money institution and should be subject to a different regulatory regime.²³¹

Despite the questions and uncertainty generated by the wording of the EMD, PayPal requested to be registered an electronic money institution in June 2003, and received its accreditation from the Financial Services Authority (FSA) in the UK in February 2004.²³² One of the E-Money Directive's objectives was "to preserve a level playing field between electronic money institutions and other credit institutions issuing electronic money" for the benefit of consumers.²³³ This was to be attained by constructing a lighter regulatory regime on ELMIs compared to that applicable to traditional credit institutions, counterbalancing it with several restrictions not imposed on banks.²³⁴ It has been argued in this paper that even the lighter regulatory regime has been unnecessarily strict in proportion to the risk involved

²²⁸ Reed (2007), p 277

²²⁹ eBay payment transactions accounted for 70% of PayPal's business at the time of the Evaluation of the EMD. See TEP *Final Report* (2006), p 30

²³⁰ See Seese, et al. (2008), p 180

²³¹ *Id.*, For more details see *id.* p 196

²³² *Id.*

²³³ E-Money Directive, Recital 12

²³⁴ Reed (2007), p276

in relation to e-money issuance. Further, it has been suggested by some commentators that the restrictions on ELMIs, and namely the requirement to maintain a float equal to 100% of the value of e-money issued and outstanding, the requirement to invest the float in only the safest securities (generally those with the lowest return) and the restriction on extraneous business activities²³⁵ have all contributed to making the issuing of e-money only marginally profitable.²³⁶

The above compounded with the differing interpretations of the E-Money Directive in the national legislations of the EU countries and the patchwork of rules and regulations throughout Europe can make it difficult to determine which regulatory regime - the one applicable to banks or the one applicable to ELMIs - is more attractive. A telling fact may be that effective July 2007, PayPal was granted authorization as a Luxembourg credit institution and in this way avoided the regulatory regime of the E-Money Directive²³⁷ or rather traded the regulations applicable to ELMIs for those applicable to banks.

Nevertheless, PayPal chooses to maintain its status as an e-money issuer and §1.1 of its user agreement for Europe²³⁸ states the following:

PayPal is only a Payment Service Provider. ... PayPal's main business is the issuance of E-money and the provision of services closely related to the issuance of E-money. ... Since the service is limited to E-money, which does not qualify as a deposit or an investment service in the sense of the Law, you are not protected by the Luxembourg deposit guarantee schemes provided by the Association pour la Garantie des Dépôts Luxembourg (AGDL).²³⁹

By contrast, in the US for example there are no special restrictions or regulations with regard to e-money²⁴⁰, and §1.1 of PayPal's US user agreement²⁴¹ reads:

²³⁵ As discussed in Sections 3.2.4.2 and 3.2.4.3

²³⁶ Reed (2007), p276

²³⁷ *Id.*, p277

²³⁸ <[https://cms.paypal.com/ie/cgi-bin/?cmd=_render-](https://cms.paypal.com/ie/cgi-bin/?cmd=_render-content&content_ID=ua/UserAgreement_full&locale.x=en_US)

content&content_ID=ua/UserAgreement_full&locale.x=en_US> last viewed on April 8, 2011

²³⁹ *Id.*

²⁴⁰ Kohlbach (2004), p 9

PayPal is Only a Payment Service Provider. PayPal helps you make payments to and accept payments from third parties. PayPal is an independent contractor for all purposes, except that PayPal acts as your agent with respect to the custody of your funds only."

§5.1 continues:

If you do hold a Balance, PayPal will hold your funds separate from its corporate funds, will not use your funds for its operating expenses or any other corporate purposes and will not voluntarily make your funds available to its creditors in the event of bankruptcy.²⁴²

In multiple other jurisdictions, including Japan, PayPal operates as a stored-value facility under Singapore law. §1.1 of the user agreement²⁴³ applicable to those jurisdictions states:

PayPal acts as a facilitator to help customers accept payments and to help customers make payments. ... PayPal will at all times hold your funds separate from its corporate funds, will not use your funds for its operating expenses or any other corporate purposes, and will not voluntarily make funds available to its creditors in the event of bankruptcy or for any other purpose. You acknowledge that (i) PayPal is not a bank and the Service is a payment processing service rather than a banking service, and (ii) PayPal is not acting as a trustee, fiduciary or escrow with respect to your funds, but is acting only as an agent and custodian.²⁴⁴

From the differences between the user agreements mentioned above it is obvious that a company such as PayPal clearly adapts to the regulatory environment it operates in. In the

²⁴¹ <https://cms.paypal.com/us/cgi-bin/?cmd=_render-content&content_ID=ua/UserAgreement_full&locale.x=en_US#1.%20Our%20Relationship%20with%20Yo
u.> last viewed on April 8, 2011

²⁴² *Id.*

²⁴³ <https://cms.paypal.com/jp/cgi-bin/?cmd=_render-content&content_ID=ua/UserAgreement_full&locale.x=en_US> last viewed on April 8, 2011

²⁴⁴ *Id.*

EU it is an e-money issuer, in the USA it is an agent and independent contractor, and in other jurisdictions such as Japan it is a facilitator as well as an agent and custodian. These differences are despite the fact that PayPal uses the same underlying technology and provides the same type of account-based service.²⁴⁵ While in Europe PayPal users exchange real world money for electronic money, it appears that users in the US and Japan maintain ownership of their real money funds, while PayPal acts as an agent for them.²⁴⁶

It has been discussed in this thesis that the stricter regulatory regime in Europe relative to e-money has arguably had a negative impact on small and start-up electronic money issuers. One of the reasons for the implementation of this regime was consumer protection and one would think that consumers in Europe would be better protected than those in other jurisdictions. There have been arguments to the contrary, however. It has been pointed out that in the event of a PayPal bankruptcy, users in Europe will only have a claim against the bankrupt company's estate.²⁴⁷ PayPal specifically warns its EU users that their funds are not insured by deposit insurance.²⁴⁸ On the other hand, in the user agreements applicable to the US and Japan, PayPal only acts as agent and the consumers presumably maintain ownership of their funds. In the event of bankruptcy, consumer funds, which are to be held separate by virtue of those agreements, will most likely remain outside the bankrupt estate.²⁴⁹ Further, if a bank where PayPal holds user funds were to become insolvent, users in the US and other jurisdiction could be eligible for pass-through deposit insurance, which would not be the case in Europe, where PayPal is considered the sole owner of such funds.²⁵⁰

Another disadvantage to consumers in Europe is the minimum threshold for redemption of e-funds. In accordance with the E-Money Directive that is set to €10 or £6

²⁴⁵ Kohlbach (2004), p 11

²⁴⁶ See *Id.*

²⁴⁷ *Id.*, p 12

²⁴⁸ See PayPal's EU user agreement as quoted above.

²⁴⁹ Kohlbach (2004), p 12

²⁵⁰ *Id.*

by §6.2 of PayPal's EU user agreement. No such minimum redemption requirement exists in the agreements applicable to the US and Japan.²⁵¹

PayPal's case in Europe highlights some important issues with the original E-Money Directive. First, due the Directive's ambiguity, it was uncertain whether PayPal would fall under the Directive's scope or should be treated as a deposit-taking institution. Second, the EMD arguably imposed prudential rules on ELMIs that could be regarded as too strict in proportion to the risks. Further, the national implementation of those rules differed widely and this could be a reason why PayPal chose to abandon its status as an ELMI and seek authorization as a Luxembourg credit institution. Lastly, despite the Directive's aim to ensure better consumer protection, consumers in other, less regulated jurisdictions may be better protected than EU consumers. Overall, according to this author's opinion, the original Electronic Money Directive did in effect put the cart before the horse. It set the stage for a regulatory patchwork of rules that proved too stringent to allow the nascent e-money industry to develop as originally envisioned.

²⁵¹ *Id.*

4 Regulatory Environment in Japan

This chapter discusses the main features of the legal framework in Japan. The Japanese framework was set up primarily by the Prepaid Card Law which is analyzed in the first section of the chapter. The second section reviews the reasons why the original law was repealed and introduces the Law on the Settlement of Funds into which the Prepaid Card Law was incorporated. The third and final section of the chapter compares regulatory regime of Japan with that of the European Union.

4.1 Prepaid Card Law

Since 1989 the Prepaid Card Law²⁵² in Japan has provided a flexible enough legal background to make the growth of electronic money possible.²⁵³ Many laws regulate the different facets of stored-value cards in Japan, e.g. the contractual or criminal aspects associated with their use.²⁵⁴ A large part of the regulatory framework, however, is shaped by the Prepaid Card Law since, by definition, stored-value cards are positioned outside the scope of most banking laws.²⁵⁵ The goals of the Prepaid Card Law are "to regulate the issuance of prepaid vouchers, protect the funds of voucher holders, and improve the trustworthiness of prepaid vouchers".²⁵⁶ These are somewhat reminiscent of the drivers behind the adoption of the original E-Money Directive in the EU. The Prepaid Card Law defined vouchers as tangible items on which "value is recorded for the purpose of effectuating payment for goods and services with counterparties defined by contract".²⁵⁷ In

²⁵² Law No. 92 of 1989, a different translation of the law's title is Act on Regulation, Etc. of Prepayment Type Vouchers

²⁵³ See generally Luyat (2009), pp 525-526

²⁵⁴ *Id.* p 534

²⁵⁵ *Id.*

²⁵⁶ *Id.*

²⁵⁷ *Id.*

this way, not all forms of electronic money came under scope of law. Moreover, certain types of vouchers were excluded such as those issued by the government or vouchers used in complex financial transactions.²⁵⁸

As mentioned previously, non-banks in Japan were allowed to participate in certain financial activities. In fact, under the Prepaid Card Law, any entity or person can issue prepaid vouchers as long as the registration and prudential requirements were satisfied.²⁵⁹ In order for the registration requirements to be met, the issuing entity must provide information on its name, its stock capitalization, the name of the directors, and the type of vouchers to be issued.²⁶⁰ In contrast to the original EU E-Money Directive, the Prepaid Card Law contains no redeemability requirements²⁶¹, i.e. an obligation for issuers to refund prepaid funds upon request, nor does it restrict the types of business activities²⁶² an e-money issuer can engage in.²⁶³

The principal prudential requirement under the Prepaid Card Law for stored-value card issuers is to maintain, at minimum, a balance of fifty percent of the value of all vouchers issued as a security deposit. Further, the security deposit may only be invested in low risk securities such as government bonds or other secure investments.²⁶⁴ The prepaid card law does not discriminate among different types of institutions and applies in the same manner to banks and non-bank issuers alike.²⁶⁵ The law does not differentiate between small and large institutions either.²⁶⁶ The capital requirements do not appear burdensome in any way. There is no strict initial capital obligation that may prevent issuers from getting

²⁵⁸ *Id.*

²⁵⁹ *Id.* p. 535

²⁶⁰ *Id.*

²⁶¹ Article 3 of Directive 2000/46/EC mandates that electronic money should be redeemable at par value

²⁶² Luyat (2009), p 535

²⁶³ Article 1(5) of the original E-Money directive restricts the activities of e-money issuers only to those closely related to e-money issuance

²⁶⁴ Luyat (2009), p 535

²⁶⁵ *Id.*

²⁶⁶ *Id.*

started in the business. The required deposit is proportional to the amount of funds issued and grows at the same rate as the issuing company's voucher business.

In the realm of consumer protection, prepaid card holders are guaranteed to receive at least a portion of their outstanding funds balance in the event the issuer becomes insolvent. This is due to the fifty percent security deposit requirement and also to the fact that voucher holders have priority with regard to the security deposit over all other creditors.²⁶⁷

In other words, the Prepaid Card Law supplied the legal framework necessary to facilitate the growth of electronic money in Japan. It provided flexibility and did not burden electronic funds issuers with excessive regulations. On the other hand, the law ensured a certain degree of consumer protection and regulatory oversight.

4.2 Law on the Settlement of Funds

The Prepaid Card Law, however, was starting to become inadequate due to the fact that technology had changed significantly since the law's adoption in 1989. This led to the Prepaid Card Law being repealed and replaced after being on the books for twenty years. The Law on the Settlement of Funds²⁶⁸ adopted in 2009 took its place.²⁶⁹ The provisions of the Prepaid Card Law were for the most part incorporated into the new law, which also had a wider scope. The new law provides the regulatory framework for prepayment methods (i.e. electronic money), fund transfer services as well as inter-bank fund settlements.²⁷⁰

As already mentioned, the Prepaid Card Law regulated prepaid vouchers, or electronic (and non-electronic) funds in the form of physical items such as certificates or cards. The value, a certain prepaid amount, would be recorded and tracked on the voucher itself.²⁷¹ There emerged, however, a second type of prepayment method that remained outside the law's scope. With the progress of technology and communications it became possible to employ server-type prepayments, where the prepaid value is stored remotely on

²⁶⁷ *Id.*

²⁶⁸ Law No. 59 of 2009

²⁶⁹ See generally Nagashima Ohno & Tsunematsu (2009)

²⁷⁰ *Id.*

²⁷¹ *Id.*

a server payments for goods and services can be made for example through internet websites.²⁷² Since the prepayment amount is registered only on servers, users make payments by accessing the servers through telecommunication lines.²⁷³

This latter type of prepaid method had largely remained outside the reach of the existing regulatory framework. While this gave businesses free reign, consumer safety concerns had been growing.²⁷⁴ Another issue was that when funds were stored on centralized servers, the prepaid vouchers could be regarded as less voucher-like and more approximating bank deposits.²⁷⁵ Some have argued that, therefore, bank regulation may be more suitable than the Prepaid Card Law, which, for instance, did not address the scenario of a server failure and the potential loss of account information.²⁷⁶ Similar questions and concerns arose in Europe, where for example, PayPal's status as an e-money issuer was questioned, with the argument that it should be treated as a deposit taking institution instead.²⁷⁷

The Japanese Prepaid Card Law was replaced because payment technologies developed farther than what was envisaged in the law itself. The Prepaid Card Law became a part of the Law on the Settlement of Funds, which covered both types of prepayment systems. Whereas the new law principally maintains the regulations previously in place, some additional regulations were imposed, for example prepaid funds issuers are obligated to issue refunds to customer in the event their businesses were to close.²⁷⁸ Nevertheless, the flexibility and simplicity of the previous legal framework remained while the new technologies were taken into consideration. Thus, Japan continues to be a country poised to undergo sustained growth of its e-money market.

²⁷² *Id.*

²⁷³ *Id.*

²⁷⁴ *Id.*

²⁷⁵ Luyat (2009), p 536

²⁷⁶ *Id.*

²⁷⁷ Discussed in Section 3.3. For in depth analysis see Seese, et al. (2008), p 196

²⁷⁸ Nagashima Ohno & Tsunematsu (2009)

4.3 Comparison with the EU

When compared with the European legal framework, the prudential regime in Japan appears concise, clear and straightforward. The E-Money Directive in the EU established complex prudential rules, which proved much too stringent for the emergent e-money industry in Europe. Moreover, the wording of the Directive created uncertainties and differences of interpretation, which further hampered the development of e-money. One of the issues was that the Directive attempted to stay technologically neutral, which in fact created ambiguity of with regard to its scope. On the other hand, the Japanese law clearly regulated a certain payment technology (prepaid vouchers)²⁷⁹ while providing a simple easily followed prudential framework at the same time. The legislative intent always remained clear-cut.

While changes in technology eventually became a reason for concern and resulted in the recent revamping of the Prepaid Card Law, the law had successfully provided the regulatory framework for 20 years. It did so by allowing any person or entity to issue prepaid vouchers²⁸⁰ and by only regulating the activity of issuance. Thus, Japan avoided the need to establish a complex prudential regime for different types of institutions. By contrast, the EMD set up three separate sets of regulations for e-money issuance by banks, ELMIs and waived institutions. Unless Member States allowed e-money issuers to operate under a waiver, capital requirements were stringent. In Japan there are no initial capital requirements,²⁸¹ allowing anyone to become involved in the issuance of prepaid vouchers. Financial stability and consumer protection are ensured by the obligation maintain a security deposit of at least half the value of all vouchers issued. In this way, the obligation did not represent a greater burden for smaller issuers. Lastly, the Japanese law contains no redeemability requirements.²⁸² Such requirements were introduced by the E-Money Directive and have been controversial, especially with regard to MNOs.

²⁷⁹ Luyat (2009), p 534

²⁸⁰ *Id.*

²⁸¹ *Id.*

²⁸² *Id.*, p 535

5 Recent Legislative Developments in the EU

This chapter of the thesis will look at recent legislative initiatives in the EU and their impact on the state of the electronic money market. The first such initiative to be addressed is the Payment Services Directive, which deals with payment services in general but also pertains to e-money payments as well. The chapter then continues with an analysis of the new E-Money Directive in an attempt to explore to what extent it corrects the shortcomings of the original directive as well as to assess the future of electronic money in Europe.

5.1 Payment Services Directive

When the Commission Staff Working Document on the Review of the E-Money Directive came out in 2006, the adoption of the Payment Services Directive (PSD) was considered. The Commission commented on the close interrelationship between e-money and electronic payments and also maintained that any regulatory changes with regard to ELMIs would have to be coordinated with the PSD.²⁸³ It was vital "to ensure a seamless consistency between the respective regimes for payment institutions and ELMIs".²⁸⁴ Hence, the role the Payment Services Directive plays in shaping the regulatory framework for e-money is analyzed next.

5.1.1 Background

EC Directive 2007/64 on payment services was an important milestone because it set out to "make cross-border payments as easy, efficient and secure as 'national' payments within a Member State".²⁸⁵ In so doing, attention was directed to electronic payments as an alternative to cash with the concurrent goals of increasing consumer confidence in this area

²⁸³ EC Working Document (2006), p 14

²⁸⁴ *Id.*

²⁸⁵ According to the EU Single Market website

<http://ec.europa.eu/internal_market/payments/framework/index_en.htm>, viewed March 20, 2011

as well as fostering trade.²⁸⁶ Besides cost and inconvenience to consumers, the EU Commission had estimated that the yearly cost of making cross-border payments among the member states amounted to 2-3 percent of EU GDP.²⁸⁷

The PSD is part of the “New Legal Framework for Payments in the Internal Market”²⁸⁸ initiative to harmonize the legal rules for payment services in EU member states.²⁸⁹ The Directive has two main objectives: a) to promote competition in the market for payment services by eliminating barriers to entry and ensuring equality of treatment with regard to market access, and b) to create a harmonized and simplified legal framework for payment services in relation to information requirements and the rights and obligations of payment services users and providers.²⁹⁰

5.1.2 A New Authorization Regime

The Payment Services Directive establishes a new definition and an authorization regime for “payment institutions”²⁹¹ as opposed to banks and electronic money issuers, which are not within its scope.²⁹² The objective is to level the playing field in the payments services market between banks and non-banks.²⁹³ The authorization and registration requirements with regard to the provision of payment services apply across the EEA, in any currency.²⁹⁴ Certain qualitative and quantitative requirements must be met.²⁹⁵ For example, there is an initial and ongoing capital requirement of €125,000.²⁹⁶ This contrasts with a

²⁸⁶ Mercado-Kierkegaard (2007), pp 177-178

²⁸⁷ Howarth (2008), p 98

²⁸⁸ See Commission Communication COM(2003) 718 final

²⁸⁹ Freitag and Schimka (2010), p 92

²⁹⁰ Brindle & Cox (2010), p 314

²⁹¹ Payment Services Directive, Article 4(4)

²⁹² The PSD does, however, lay down rules regarding electronic money transactions. See PSD, Recital 9

²⁹³ Freitag and Schimka (2010), p 102

²⁹⁴ Brindle & Cox (2010), p 315

²⁹⁵ *Ibid.*, p 316

²⁹⁶ PSD, Article 6(c)

capital requirement of € million for a credit institution.²⁹⁷ The difference is primarily because a payment institution cannot accept deposits and can only issue credit in certain instances²⁹⁸, but concomitantly, the relaxed requirements should make the payment services market more accessible to new entrants. Consumers are protected, however, due to the obligation that a payment institution engaging in other business activities cannot commingle the funds received from payment service users with its own funds.²⁹⁹ Member states may waive all or a portion of the authorization requirements for small payment institutions³⁰⁰ that do not wish to conduct business in other member state or “passport” their authorization.³⁰¹ Furthermore, the PSD sets out harmonized rules on the information payment institutions must provide to their customers as well as on liability.³⁰²

The Payment Services Directive attempted to resolve some of the issues facing mobile network operators as a result of the original E-Money Directive. Now MNOs had the option to provide payment services if they obtained a license as a "payment institution". Furthermore, MNOs only fell within the scope of the PSD if they acted solely as intermediary between the user and the supplier in making the payment.³⁰³ If the payment service is dependent on the provision of other digital services supplied by the telecommunications provider (e.g. sale of ring tones, digital newspapers, etc.), where the provider adds intrinsic value, the Directive does not apply.

5.1.3 Regulatory Framework for Payment Services

The rights and obligations of payment service providers and users are addressed in the PSD. These rules are applicable to all payment service providers, including e-money issuers.³⁰⁴ Some of the more noteworthy elements addressed in the applicable section of the

²⁹⁷ Directive 2006/48/EC

²⁹⁸ Brindle & Cox (2010), pg 316

²⁹⁹ PSD, Article 9(1)

³⁰⁰ With less than €3 million of payment transaction per month

³⁰¹ Brindle & Cox (2010), pg 317

³⁰² Howarth (2008), p 98

³⁰³ See PSD, Recital 6 and Article 3(1)

³⁰⁴ ELMIs are a subcategory of payment service provider. See PSD, Article 1(1)

Directive³⁰⁵ are consent, irrevocability, execution time, liability in the event of unauthorized use, and liability in the event of non-execution or defective execution.

Consent must be given by the payer for a payment transaction to be considered authorized.³⁰⁶ If consent has not been given for a transaction it is to be regarded as unauthorized.³⁰⁷ Further, the payer can withdraw his consent at any time, but not after a transaction has become irrevocable.³⁰⁸ The irrevocability (or finality) of payments is especially important in payment and payment settlement systems.³⁰⁹ Therefore, the PSD stipulates that a payment services user cannot normally revoke a payment order after it has been received by the payer's payment services provider.³¹⁰

With respect to the execution time, the Directive speeds up the time for processing of cross-border transactions. By 2012, processing of payment transactions should be carried out within one working day. After the receipt of a payment order, the payer's payment services provider will be required to have credited the payee's provider account by the end of the next business day.³¹¹ Additionally, the funds should be credited to the payee's account on the same business day that the payee's payment services provider receives them.³¹²

The PSD champions the interest of consumers by providing common rules with regard to liability as well. End users do have the obligation to abide by the terms of use of a given payment instrument and are also required to keep its security features safe and to notify their payment institution without undue delay in the event of loss or misuse.³¹³ On the other hand, the liability lies with the payment services provider if an unauthorized

³⁰⁵ PSD, Title IV

³⁰⁶ PSD, Article 54(1)

³⁰⁷ PSD, Article 54(2)

³⁰⁸ PSD, Article 54(3)

³⁰⁹ Mäntysaari (2010), p 268

³¹⁰ PSD, Article 66

³¹¹ PSD, Article 69(1)

³¹² PSD, Article 73(1)

³¹³ PSD, Article 56

transaction takes place, and the user's account should be restored to its original state.³¹⁴ If the unauthorized transaction(s) is a result of a lost or stolen payment instrument, or compromised security features, the end-user is liable only up to €150.³¹⁵ Further, the end-user has no liability for transactions that have taken place after he has notified the payment services provider about the loss of theft of the payment instrument, unless the user has acted fraudulently.³¹⁶ In the event of non-executed or defective transactions, the payer's payment services provider is liable to the payer, unless he can prove that the transaction was executed correctly. In such a case, the payee's payment provider will be liable.³¹⁷

5.1.4 Payment Services Directive - Recap

The PSD was meant as a full harmonization directive and as such it was an important step toward a unified financial services market in Europe. It makes possible the provision of uniform payment instruments throughout the EU.³¹⁸ Further, the payment services directive has been central to the development of SEPA³¹⁹ (Single Euro Payments Area), which has been dealing with creating uniform technical standards and processes with regard to credit transfers, direct debits and card payments.

The Directive streamlines and unifies the EU's national payment regimes and together with Regulation 924/2009 on cross-border payments makes a concerted effort to minimize the cost of cross-border transactions and to foster competition between banks, credit card companies and other payment providers.³²⁰ It is debatable, however, how effective the Directive has been with regard to opening the market for payment services and increasing competition by creating an authorization regime for non-bank "payment institutions"/³²¹ Nevertheless, the PSD introduced has important rules and consumer protection provisions

³¹⁴ PSD, Article 60

³¹⁵ PSD, Article 61(1)

³¹⁶ PSD, Article 61(4)

³¹⁷ PSD, Article 75(1)

³¹⁸ Janczuk (2010), p 330

³¹⁹ Brindle & Cox (2010), p 314

³²⁰ Howarth (2008), p 98

³²¹ See generally Freitag and Schimka (2010)

that benefit users of miscellaneous payment services, e-money included. This makes it difficult to determine the impact of the Directive on electronic money take-up by consumers. On the one hand, consumer protection in the area of electronic payments (including e-money) has been strengthened. On the other hand, the cost effectiveness and general appeal of other competing payment methods have also been increased. Therefore, it may be up to the new E-Money Directive to shape the future of electronic money in Europe. That Directive will be discussed in the next section of this thesis.

5.2 New Electronic Money Directive

As discussed previously in this paper, there was a general dissatisfaction with the original E-Money Directive and the development of the electronic market in Europe. There were few fully licensed e-money issuers in Europe and the volume of outstanding e-money in circulation was fairly low.³²² The subsequent review of the Directive led to the proposal and adoption of a new Directive on Electronic Money, EC Directive 2009/110. The deadline for implementation of the new E-Money Directive by the Member States is April 30, 2011.³²³ From that date the original E-Money Directive is effectively repealed and replaced by the new Directive.³²⁴ The shortcomings of the original directive, as seen by the Commission, have been addressed in the new EMD. Some of the main aspects of the changes to the e-money regulatory framework are addressed below.

5.2.1 Updated Definitions

The new directive amends the definition of e-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 ... , and which is accepted by a natural or legal person other than the electronic money issuer.³²⁵

³²² Brindle & Cox (2010), p 388

³²³ New EMD, Article 22

³²⁴ *Id.*, Article 21

³²⁵ *Id.*, Article 2(2)

The new definition removes the reference to e-money being stored on 'electronic device', in order to relieve the ambiguity of the old definition. Server or network based e-money is now clearly within the scope of the Directive. The above definition is further strengthened by Recital 8³²⁶ which leaves no doubt that e-money can be placed on both electronic devices and server storage. Moreover, the scope of the definition is broadened since e-money technologies can now include magnetic (non-smart) cards (e.g. reusable gift cards).³²⁷ An additional element is that the new EMD is now coordinated with the Payment Services Directive and e-money is issued 'for the purpose of making payment transactions' as defined in the PSD.³²⁸

With regard to exclusions from the scope of the Directive, certain loyalty schemes and reward programs will continue to fall outside the definition of e-money due to the ongoing requirement that electronic money has to be issued on the 'receipt of funds', i.e. it cannot be issued for free.³²⁹ Recital 5, however, exhibits a new approach to prepaid instruments that are meant to be used in a 'limited way' e.g. "within a limited network of service providers" or for "a limited range of goods and services". In such situations the Directive will not be applicable.³³⁰ This differs from the original EMD where the acceptance of electronic money "by a limited number of undertakings" only made the issuing institution eligible for a waiver.³³¹ In this way the new EMD is once more brought in sync with the PSD, because the PSD does not apply to "services based on instruments that can be used ... within a limited network of service providers or for a limited range of goods and services".³³²

³²⁶ *Id.*, Recital 8. "The definition of electronic money should cover electronic money whether it is held on a payment device in the electronic money holder's possession or stored remotely at a server and managed by the electronic money holder through a specific account for electronic money."

³²⁷ Halpin and Moore (2009), p 565

³²⁸ PSD, Article 4(5)

³²⁹ Halpin and Moore (2009), p 565

³³⁰ New EMD, Recital 5

³³¹ Original EMD, Article 8(1)(c)

³³² PSD, Article 3(k)

With regard to the definition of ELMIs, it has also been made clearer and more concise. An 'electronic money institution' is defined as a legal person that has been granted authorization under the EMD to issue electronic money.³³³ This, combined with the fact that the new EMD is a 'full harmonization' directive should leave no ambiguity that ELMIs are subject to their own prudential framework, a framework that is distinct from that of credit institutions. This had been an issue with the original E-Money Directive.³³⁴

5.2.2 Changed Prudential Framework

The general prudential framework for electronic money institutions imposed by the new EMD is another area that has been synchronized with the Payment Services Directive. Given that both directives are based on full harmonization, much less variability in the national implementations should result. This had been an issue in the implementation of the original EMD.³³⁵ Some of the specific features of the prudential regime applicable to ELMIs are addressed below.

5.2.2.1 Limitations on Activities

One of the main points of contention with the original E-Money Directive was that it restricted the business activities of ELMIs to e-money issuance and closely related activities. This restriction was especially problematic with the so-called hybrid issuers such as Mobile Network Operators and transportation companies, whose primary business was not e-money issuance. The limitation on activities is now effectively lifted. ELMIs can now also provide payment services as defined in the Payment Services Directive,³³⁶ and can further engage other business activities (unrelated to e-money issuance), having regard, however, to the 'applicable Community and national law'.³³⁷ It is anticipated that the lifting of these restrictions would lower the cost of entry into the e-money market for new

³³³ New EMD, Article 2(1)

³³⁴ See Section 3.2.3.2

³³⁵ See for example Section 3.2.4.5

³³⁶ New EMD, Article 6(d)

³³⁷ *Id.*, Article 6(e)

participants, by permitting them to engage in e-money issuance parallel to their core business.³³⁸

5.2.2.2 Capital and Reserve Requirements

The new EMD has taken into consideration the concerns that were voiced with regard to the initial capital and reserve requirements being too strict and not in proportion with the risks involved in e-money issuance. In the view of the Commission higher initial capital requirements presented a hurdle for smaller institutions operating under a waiver to obtain full ELMI authorization.³³⁹ As a result, the initial capital requirement is reduced from €1 million to €350 000.³⁴⁰ This is also the minimum required own funds on an ongoing basis. This amount, however, is higher than the initial capital requirement for authorization of payment institutions under the Payment Services Directive, which sets the requirement at €125 000.³⁴¹

The new E-Money Directive maintains the obligation for ELMIs to have own funds equal to at least 2% of the average outstanding electronic money.³⁴² This obligation pertains only for the activity of issuing e-money. The own funds requirement for the provision of payment services not linked to e-money issuance is in accordance with the PSD and is calculated based on the methods prescribed by it.

5.2.2.3 Limitations on Investments

This time around the limitations on investments or 'safeguarding requirement' as they are called in the new EMD are brought in sync with the Payment Services Directive. This means that funds received in return for e-money issued shall not be commingled with the funds of persons other than payment service users or e-money holders.³⁴³ Consumers are given better protection since such funds should be insulated in the interest of payment

³³⁸ Halpin and Moore (2009), p 565

³³⁹ *Id.*

³⁴⁰ New EMD, Article 4

³⁴¹ PSD, Article 6

³⁴² New EMD, Article 5(3)

³⁴³ New EMD, Article 7(1), PSD, Article 9(a) through (c)

service users against the claims other creditors, particularly in the event of insolvency.³⁴⁴ ELMIs are given additional flexibility because as an alternative to maintaining float equal to 100% of outstanding e-money issued, they can chose to be covered by insurance which would be payable in the event an ELMI is unable to meet its financial obligations.³⁴⁵ When float is maintained, low risk assets should be used,³⁴⁶ in keeping with the original EMD.

5.2.2.4 Redeemability

The new EMD maintains the requirement that e-money should be redeemable at any time, and at par value, at the request of the e-money holder.³⁴⁷ The Directive permits issuers to charge a fee for redemption in certain instances, if stated in the contract between the issuer and the e-money holder and providing that such fees are 'proportionate and commensurate with the actual cost incurred by the electronic money issuer'.³⁴⁸ This wording gives issuers a little more leeway for charging fees, compared to the original EMD. In the interest of consumers, the new Directive eliminates the minimum redemption threshold of €10 stipulated by the original EMD.

Concerns still remain that the redeemability requirement could pose problems for MNOs. Recital 6 of the new EMD would exclude MNOs from the scope of the Directive where "there is neither a direct payment relationship nor a direct debtor-creditor relationship between the network subscriber and any third-party supplier". Nevertheless, redeemability may impede future business models that could be adopted by MNOs.³⁴⁹ The Mobile Broadcasting Group has conveyed its apprehension that the redeemability requirements "could be interpreted as an obligation to redeem all funds held on mobile pre-paid accounts with an e-money functionality".³⁵⁰ There has been no legislative solution to this problem so far.³⁵¹

³⁴⁴ PSD, Article 9(1)(b)

³⁴⁵ *Id.*, Article 9(1)(c)

³⁴⁶ New EMD, Article 7(2)

³⁴⁷ *Id.*, Article 11(2)

³⁴⁸ *Id.*, Article 11(4)

³⁴⁹ Halpin and Moore (2009), p 566

³⁵⁰ MBG as cited by Halpin and Moore (2009), p 566

5.2.2.5 Waiver Regime

It has been stated that the waiver regime under the original EMD has contributed to the growth and innovation in the e-money market. This is because businesses unable to obtain full ELMI authorization were allowed to enter the market and test their innovative ideas.³⁵² The new E-Money Directive simplifies the waiver criteria by removing certain schemes from the scope of the Directive.³⁵³ To be eligible for a waiver, an issuer's total outstanding e-money volume should not exceed a limit set by the Member State that is no greater than €5 million.³⁵⁴ Additionally, the persons responsible for the management and operation of the issuer cannot have prior convictions for money laundering, terrorist financing or other financial crimes.³⁵⁵ Member states can also impose an optional requirement of a maximum storage amount on the payment instrument or account.³⁵⁶ A maximum storage amount not exceeding €150 was mandatory under the original EMD for obtaining a waiver.³⁵⁷ In general, the waiver regime will continue to allow smaller innovative institutions to operate at the national level and encourage the emergence of new pilot schemes. Moreover, certain 'limited' in scope schemes should be able to operate outside the Directive regulatory reach.

5.3 What Does the Future Hold for E-Money in Europe?

The new Electronic Money Directive goes a long way in reducing the burdens for current and future e-money issuers in Europe. In coordination with the Payment Services Directive it puts the European Union on the road to a unified e-money market with fewer differences between Member States. Yet, the actual effect of the new EMD on e-money issuers and the growth of electronic money as a payment medium remains to be seen after the Directive formally replaces the original EMD on April 30, 2011.

³⁵¹ *Id.*

³⁵² *Id.*

³⁵³ See Section 4.2.1, paragraph 3

³⁵⁴ New EMD, Article 9(1)(a)

³⁵⁵ *Id.*, Article 9(1)(b)

³⁵⁶ *Id.*

³⁵⁷ Original EMD, Article 8(1)

While it is difficult to predict what the future holds, the new Directive attempts to correct, as discussed above, many of the reasons why the original EMD was viewed as unsuccessful - and namely, the vague definition of its scope and applicability, prudential rules that were overly strict and complex, differing national implementations inhibiting the development of a single EU e-money market. Most notably, the reduced capital requirements and the lifting of the restriction on activities are likely to have a strong positive impact on e-money issuers.

Nevertheless, the European legal framework remains relatively complex with regard to electronic money. Issuers continue to be regulated based on a three-tiered system differentiating between fully licensed credit institutions, ELMIs and e-money issuers operating under a waiver. Certain aspects of the regulations applicable to credit institutions under the banking directives³⁵⁸ remain applicable to ELMIs. The new E-Money Directive contains multiple references to the banking directives. While reduced, initial capital requirements remain in place. Redeemability of e-money at the request of the holder is still mandated, which is point of contention, especially with regard to MNOs.

By contrast, the Japanese regulatory system chooses to classify prepaid instruments as vouchers that generally fall outside the scope of most banking regulations.³⁵⁹ There is no initial capital requirement in Japan, where any person or institution can issue stored-value vouchers, provided security guarantees are met.³⁶⁰ Furthermore, the security guarantees or security deposit are less burdensome than the European capital requirements since it should only be equal to 50% of the amount of outstanding stored-value instruments. Finally, the Japanese laws contain no obligation to redeem vouchers for cash.³⁶¹

It appears that despite the fact that the new EMD liberalizes and simplifies the e-money regulatory framework in Europe, the Japanese system remains simpler and more liberal. Time will tell whether the recent legislative efforts in the EU would prove successful. The EU Commission should closely monitor the state of the e-money market to

³⁵⁸ Directives 2006/48/EC and 2006/49/EC

³⁵⁹ Luyat (2009), p 545

³⁶⁰ *Id.*

³⁶¹ *Id.*, p 535

ensure that the regulatory framework is not stifling growth and innovation. This is particularly important with regard to mobile network operators and e-money redeemability requirements.

6 Conclusion

This thesis has demonstrated that electronic money can be a valuable means of payment with distinct advantages. It has gained popularity and widespread adoption in some countries such as Japan. At the same, e-money has lagged as a payment method in the European Union.

Different dynamics are at play when it comes to the question whether e-money will succeed or fail in a given jurisdiction. For example, Japan's payment culture, where cash payments are widespread and debit cards have limited popularity, has been conducive to expanded e-money usage. In the European Union, debit cards are commonly used and consumers have had little incentive to switch to a payment method such as e-money. Technology is another determining factor. The early adoption of contactless payment technologies may have been key to the success of e-money in Japan. Such technologies have yet to be deployed on a large scale in Europe. A solid business model is also critical to successful e-money issuance. Symbiotic business strategies where e-money supplements another business activity have been shown to work. Examples for this are the success of PayPal as an e-money issuer (in partnership with eBay) and the conversion of the train fare card in Japan into a payment instrument enjoying widespread use. It remains to be seen, however, whether stand-alone e-money schemes can be equally as successful.

Any business model is also highly dependent on the legislative framework in which it operates. The rules and regulations applicable to a business activity can provide the stability, certainty and consumer confidence that are so conducive to its success. On the other hand, any regulation is associated with certain overheads, costs and regulatory hurdles. This thesis has shown that the original E-Money Directive in the EU achieved a degree of legal certainty but at the same time impeded market entry and restrained growth. This was due to the complex and stringent prudential framework it introduced, differentiating between banks, e-money issuers (ELMIs) and waived institutions. A restriction was imposed on ELMIs to engage in business activities extraneous to e-money.

Further, strict initial capital and reserve requirements stipulate that ELMIs should have not less than €1 million of own initial capital. Issuers have to maintain a 100% float equal to all electronic money issued. The float can only be invested in liquid, low risk assets. The Directive introduced a redeemability requirement as well, stating that e-money must be redeemable at all times, free of charges other than those strictly necessary to carry out the operation. The redeemability requirement proved controversial especially with regard to mobile network operators (MNOs). This thesis has argued that these and other rules contained in the EMD have made it difficult for e-money issuers to be profitable or even to become involved in e-money issuing activity. Moreover, the Directive's wording with regard to its scope and the definition of e-money led to ambiguities and different interpretation. This coupled with the fact that the EMD was based on minimum harmonization led to varying national implementations, hardly facilitating a single European market for e-money services.

By contrast, the legal environment in Japan, as framed by the Prepaid Card Law is simple and straightforward and allows any person or entity to issue prepaid payment instruments as long as registration requirements were met. The Prepaid Card Law does not restrict the business activities an issuer can engage in. Further, it contains no initial capital requirements and no obligation to redeem prepaid funds at any time. Issuers must maintain a security deposit equal to 50% of the amount of prepaid funds issued. The law had a clearly defined scope that did not include server-type prepayments. Technology had changed, and so did the law - the Prepaid Card Law was incorporated into the Law on the Settlement of Funds, while maintaining the same basic terms but regulating server-type prepayments as well. Based on the facts laid out in this paper, it appears that the regulatory environment did indeed facilitate the growth and widespread usage of electronic money in Japan.

The recent legislative efforts in Europe - the Payment Services Directive and the new E-Money Directive - have attempted to establish a more streamlined legislative framework with lower regulatory barriers. The changes include a new definition of e-money, which is brought in line with technological developments. The capital and reserve requirements are relaxed reducing the initial capital needed to €350 000. The restriction on business

activities is lifted. The new directives strengthen consumer protection and address some of the issues facing mobile network operators. Yet, despite these changes, the European regulatory system remains stricter and more complex than the Japanese. Therefore, in order for electronic money to be successful in Europe, legislators need to remain watchful of the impact the regulatory framework has on the e-money market, further relaxing the prudential regime if needed.

Yet, regulation by itself would not be able alter the course of the e-money industry. A concerted effort will be needed by market participants, along with significant investments, to provide the appropriate technological solutions and to change consumer perceptions and behaviors.

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