Electronic money is too soon to replace cash

Introduction Before using “ money” in transactions, people bartered for what they want. However, Barter transactions can only occur where there is a “ double coincidence of wants”, that the seller must have exactly the things that the buyer wants and the buyer must have something the seller wants in return. It is hard to find these double coincidences, since it is very difficult to find two persons who can suit each other’s wants exactly (Roth, Sonmez & Unver, 2005), and people have to know the exchange prices of all the goods in order to trade. It makes trading difficult to carry out.

To make trading simpler, people created “ Money” as a medium of exchange and to measure the value of goods. After that, in order to help trading become more efficiently, money keeps evolving from shells and stones money in the ancient time to metal coins and paper currency nowadays. And there is a newest from of money, electronic money (E-money), started to develop quickly with its related products like prepaid card in 1993 (European Central Bank, 1998, p. 1). E-money refers to the money which is exchanged only electronically and “[e]lectronic money products are defined as stored value or prepaid products in which a record of the funds or value available to the consumer is stored on an electronic device in the consumer’s possession” (Hong Kong Monetary Authority, 1996, p.

25). Heinrich and Mizuno (2000) stated that electronic money can help to make transactions easier and reduce the cost of customers and merchants, so it has the potential to take over cash in making small-value payments. And “[p]redictions of a cashless society have been around for decades” (Mishkin, 2007, p. 6).

Also, Holland and Cortese (1995) note that using E-money “ could change consumers’ financial lives and shake the foundations of global financial systems”. These show that E-money has the potential to replace cash, and people believe in it. However, E-money is too soon to replace cash, since there are three problems hinder the development of the diffusion of E-money: the security risks, the difficulties in popularization, and the impact on central banks and the governments. The security risks Security problems of using E-money in transactions are still the main concern of people. It is because “[s]ecurity risks to electronic money systems could arise in the consumer or merchant domains and in the financial institution domain, as well as in network communications” (McDonough et al.

, 1996, p. 1). E-money is stored in electronic form and exchanged electronically. It is stored in an electronic card or an electronic bank. This means that if people want to use E-money in transaction, they can only use electronic money products. For example, Octopus card, Montex and Visa Cash.

As “ electronic means of payment raise security … concerns” (Mishkin, 2007, p. 6), when the transaction is made electronically, people will concern on the security of the E-money system. For instance, when inadequate controls occur, then hackers can attack the system successfully and could access, retrieve, and use the confidential information of the customers (Basle Committee on Banking Supervision, 1998, p. 5). Also, according to Heinrich and Mizuno (2000), lack of relevant expertise in E-money security system area and difficult to keep race to the rapidly developing security and encryption technology are problems facing by the central bankers in Hong Kong (pp. 0-41).

These security related problems make people worry, and they will use cash in transaction rather than using E-money, since using cash provide them with greater confidence. Therefore, people will have less confidence to use E-money and continue to use paper notes. It makes E-money difficult to replace cash. The difficulties in popularization To supersede cash, E-money should be popularized, but it is a hard work.

This is because of the low acceptance of people and the high cost of applying E-money transaction system. For the acceptance of people, people use coins and paper notes as usual practice since many years ago. Although, a growing number of banks are trying to use a " click and bricks" strategy and introduce online services so as to attract more customers (Pennathur, 2001), it helps to promote using of E-money. However, people are not familiar with it and need time to adapt.

Especially for the elderly people and people without technological knowledge, they usually resist and don't how to use E-money. Also, E-money is still not so widely used now. To deal with the daily transactions, many of them cannot be done by using E-money. However, cash using is already adapted by people, and all transaction can be done by using cash. Therefore, Wonglimpiyarat (2007) writes " there seems to be no consumer response to the e-cash as a revolutionary means of payment transmission".

It put E-money in a disadvantageous position. On the other hand, the cost of applying E-money transaction system is very high. Because E-money can only use with the E-money products, specific electronic devices are needed to apply for E-money transaction. Also, “ a system [of] … electronic money on cards and hard drives … functions efficiently if economic agents are able to do so at low cost” (Krueger, 2001), but “ it is very expensive to set up the computer, card reader, and telecommunications networks necessary to make electronic money the dominant form of payment” (Mishkin, 2007, p. 56).

Moreover, “[t]he market still lacks the application developers to induce the deployment of e-cash” (Wonglimpiyarat, 2007). If there is no capital support for the installation of E-money, it is difficult to popularize E-money transaction to our daily lives. However, there is no such problem in using cash. Therefore, the high cost of applying E-money system blocks the way for E-money to take over cash. The impact on central banks and the governments Large impact will be made on central banks and the government, when cash is replaced by electronic money.

Those impact are loss of income and difficulties in supervision of central banks and the governments. “[M]ost economists agree that seigniorage is one way governments finance deficits” (Aisen & Veiga, 2005). Seigniorage is the net revenue earned from the difference between the face value of the money and the cost of producing it. Therefore, when cash is replaced by E-money, the decline the central bank seigniorage revenue, the central banks and the shareholder of the central banks – the governments, will suffer from loss. There is still hasn’t any suitable schemes to deal with this problem. Also, “[s]ince cash is a large or the largest component of central bank liabilities in many countries …, a very extensive spread of e-money could shrink central bank balance sheets significantly” (Bank For International Settlements, 1996, p.

). Futhermore, it is difficult to supervise the E-money payment system that: in countries where central banks have a banking supervision role, they may also need to … considerat[e] … whether the failure of one participant was likely to threaten the viability of the whole scheme or whether the failure of one scheme could threaten the viability of other schemes or the reputation of electronic payment systems more generally. (Bank For International Settlements, 1996, p. 7). It is difficult to foresee how large the impact is roduced on the monetary policy, so it is difficult and not yet for central banks to set up suitable schemes for E-money transaction. Therefore, E-money still cannot substitute for cash yet.

Conclusion E-money can reduce more transaction cost and makes transaction easier than cash. Also, “[d]evelopments in electronic money schemes have been evoking considerable interest over the last few years, although their use is still very low compared to cash and traditional non-cash payment instruments” (Committee on Payment and Settlement Systems, 2004, p. 1). It has the potential to replace cash. However, there are problems hinder this substitution.

First, the security risks affect the confidence of people of using E-money, as level of online security is the main factor for people to choose whether using E-money or not. Second is the difficulties existed in popularizing E-money. People cannot adapt to it yet, and the cost of applying E-money transaction system and devices is very high. These will hinder E-money to be widespread used. Third, there are still no suitable schemes to deal with the impact of replacement of cash by E-money.

Therefore, E-money is too soon to replace cash.