Electronic Money and its Influences on Social Security

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Abstract
Given the profound transformations that have suffered monetary systems under the action of powerful movements due to the technological innovation, liberalization and globalization, one of the new challenges that they face today’s economy is promoting new forms of payment including electronic money with deep, long-term implications on the development of sustainable security. Accepting a new economic paradigm makes no sense in the absence of specific values, principles and tools. Electronic money seems to be a tool that is compatible with the (still diffuse) values and principles of the global economy in the sense of bottom-up systems. Skepticism about electronic currency is a natural reaction of those who came to enjoy global system policy rules tailored top down. The research paper is designed to identify the role of currency in social development starting from the analysis of interpersonal values to social values and human psychology for each individual.

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1. Literature Review
In recent years, a number of world finance specialists have leveled on these issues, and especially on the future role of the central bank in a private e-money economy. In a recent study, Stefan W. Schmitz and Geoffrey E. Wood (Schmitz, WS, Wood, GE, 2005) presented the issue of major institutional changes that can be quantified when introducing electronic money into the UK economy, United States, as well as the Euro zone. Their study also proposed a theoretical analysis framework as well as a scientific methodology for the comparative approach of the effects of electronic money on these economic areas. The main causes of institutional changes identified by authors are changes in the structure of money demand and the policies of electronic money banks.

The most visible institutional changes in the banking system will be those related to new payment technologies and tools, real-time (RTGS) and high-computerized operations. These will lead to a reduction in the primary currency in the money supply, which raises questions about the role of the currency in general in the economy, and of the electronic money in particular.
Institutional changes affect monetary policy through their impact on primary money demand and the effectiveness of monetary policy. However, central banks can use a relatively large number of instruments to influence institutional changes in payment systems.

Based on a critical approach to specialized literature on electronic money and monetary policy, Stefan W. Schmitz (Schmitz, SW, 2005) has demonstrated that most models dealing with the effects of innovation on monetary policy are based on the differentiation of the means of payment and unit of measure of the coin. His analysis has shown that these models do not take into account the institutional structure of payment systems.

In his studies on monetary policy in a world without a primary currency, Schmitz states that all the previous models, which are supposed to have a central monopoly on the functions of the means of payment of the various forms of money, are incomplete and inconsistent. They do not take into account the central bank’s regulatory authority. It is highlighted that central banks can impose their monetary policy through mandatory and optional minimum reserves, controlling interest rates.

The lower the monetary policy instruments of the central bank, and it diminishes its control over monetary aggregates, the more volatile the control of interest rate volatility is. In this respect, it is well-known that, as regards the current legislative framework of the European Central Bank and the US Federal Reserve, it does not require profound changes, by already ensuring the regulatory authority necessary to implement a monetary policy related to an information society without primary currency.

Electronic currency therefore offers the possibility, at least theoretically, of privatizing the national currency, while reducing the role of the current fiduciary currency. Competition and market maintenance costs will result in passive interest payments by electronic money issuers to its holders. Simultaneously with the change in consumer behavior over the possession of electronic money, to the detriment of the classical, no-interest fiduciary, there will be radical changes in the real economy. Given the situation described above, some of the monetary specialists already predict the renunciation of the fiduciary currency in its classical form.

The transition from the old monetary universe, having the central element to the Government, to a new type, where the primary element is the market, will undoubtedly be a process of slow evolution. Due to the habits, habit and network effects of the current fiduciary currency, it will take a long time for the population to adapt to new ideas and technologies and to accept electronic money (both in the form of smart cards and in the form of open accounts on Internet) as a new way of payment and exchange (White, L., 1995, p. 18). That is why the current monetary system will not disappear immediately.

2. E-money
Today we are confronted with such a situation by moving from paper coins to electronic money. Gradually replacing central bank notes and bank checks with plastic cards, electronic funds transfers, the world has prepared itself for the new step in automating currencies. Internet e-commerce has the role of implementing a variety of online payment mechanisms, and electronic money can very well multiply internet use as a market and for financial transactions. We are at the brink of a new industrial revolution fueled by the proliferation of electronic money.

The approach of the coin in its historical evolution highlights the tendency of its dematerialization, its metamorphosis, from the metal to the credit cards and the electronic currency. Given its heterogeneity, its technical characteristics and its immaterial nature, the electronic currency promises to be radically different from any known form of money. The long-term implications of a change in the form of money can only be appreciated if conceptualizing currencies as a central institution in organizing economic activities. Such a theoretical character allows to identify the historical evolution of the coin as one of progressive dematerialization and to look more closely at its contradictory nature as a key factor of the changes in its form.

The new forms of money, regardless of when they appeared, are no less functional or effective than the old ones, but they need a period of accommodation to demonstrate their substantial and undeniable benefits, causing the population to adopt them at the expense of premiums. Reaction to novelty, including monetary, is more emotional than evolutionary. **The population is dependent on the coinage itself.** The fiduciary currency fulfills the above-mentioned functions, but the new monetary forms are invented to cover these functions, but perhaps in different ways. The implementation and acceptance of new monetary forms, both from a historical perspective and in the near future, reveals a certain feature “everything the different coins have in common are their functions” (Ingham, 2001). However, not all instruments of a certain function can be perceived similarly by the human mind. All modern information systems perform almost the same data storage operations, but the operating interface differs enormously, from the end-user’s point of view, compared to mid-twentieth-century computing machines, mainly because they rely heavily on recognizing component elements, to the detriment of visual memory.

**Globalization leads to an increased dependence on virtual, intermediate Internet exchanges.** With the evolution of e-commerce, it was only a temporary problem until new forms of currency appeared, based on digital encryption and issued by private entities, such as electronic money. The idea behind the electronic money is to create monetary units, endowed with purchasing power, that can be used and electronically transferred online: in fact, a “virtual” currency that can be used in a similar way to national currencies for the procurement of goods and services.

One of the main features of the electronic money is to allow final real-time transfer through a transaction performed by a communication system that does not interfere with the banking system at all. The transaction by which electronic money is transferred from one user to another is the initiation and completion of the payment. From an economic point of view, the claim on the electronic money issuer is held by the last person to whom the electronic money has been transferred, precisely at the time of the transfer, without any other regulation with the banking system; the sender of the electronic money automatically loses its claim on the issuer – similar to the banking system at the beginning of the nineteenth century.
From these points of view, electronic money regains some characteristics in the Gold Standard monetary system, when in circulation were used free convertible notes in precious metal, issued by several credit institutions. The difference lies in the form under which these claims circulate: at the beginning of the nineteenth century, the banknotes were in the form of paper documents, while in the case of electronic money, these “banknotes” are in the form of digitally encrypted information stored by electronic devices. In our opinion, attempts to regulate electronic money must take into account both the Gold Standard monetary system legislation and the positive or negative results recorded at that time.

The electronic currency had a difficult appearance. Her developers faced challenges of anonymity and security that people were preoccupied with and led the skeptical public to not trust the currency running through computer networks. A first generation of experiments proved the technical feasibility of key electronic money projects (electronic checks, smart cards, digital coins) but was not able to make a decisive breakthrough in the dominance of credit cards. The sudden deterioration in the financial conditions of Internet companies has undermined the commercial viability of the second generation of electronic money experiments. The third wave of monetary innovations is taking place on the basis of ideas that have become viable in the second round.

While still struggling against unfavorable market conditions, these experiments could generate critical mass for the successful launch of the electronic money.

E-money will facilitate online services, global web sites, global investment portfolio management, these elements will be the pillars of global digitization. As we have seen, electronic money will open up space for online transactions but can lead to an increase in international inequities and economic instability. Currently, there is no control over electronic money reserves, electronic power coins can be created anywhere in the world, the payment service cannot be protected as a public good, so it is necessary to create a monetary authority in cyberspace.

But the electronic currency revolution also raises some problems, largely left open at the moment. Thus, we can identify a number of questions addressed in the literature in recent years, specific questions related to the introduction of electronic money and which have remained unanswered or unanimously accepted:

? how to introduce an alternative payment method that is no longer directly related to the central bank will affect the monetary policy of a state;

? what are the direct effects on money supply, currency stability and country's predictable currency demand;

? if the decline in cash demand can or may not lead to an economy based on a single currency alone;

? what will be the role of central banks in the future economy;

? what will be the role of the electronic money in ensuring social security;

? other practical aspects related to the positive or negative effects of the introduction of electronic money in the economy.
Electronic currency therefore offers the possibility, at least theoretically, of privatizing the national currency, while reducing the role of the current fiduciary currency. Competition and market maintenance costs will result in passive interest payments by electronic money issuers to its holders. Simultaneously with the change in consumer behavior over the possession of electronic money, to the detriment of the classical, no-interest fiduciary, there will be radical changes in the real economy. Given the situation described above, some of the monetary specialists already predict the renunciation of the fiduciary currency in its classical form.

The transition from the old monetary universe, having the central element to the Government, to a new type, where the primary element is the market, will undoubtedly be a process of slow evolution. Due to the habits, habit and network effects of the current fiduciary currency, it will take a long time for the population to adapt to new ideas and technologies and to accept electronic money (both in the form of smart cards and in the form of open accounts on Internet) as a new way of payment and exchange (White, L., 1995, p. 18). That is why the current monetary system will not disappear immediately.

The advantages of the new form of currency, its anonymity, its positive efficiency, will make it more attractive in terms of the exchange environment function. Thus, in line with the efforts of commercial banks to reduce the required reserves held with central banks, the net result will be a decrease in the monetary base. The normal reaction of the central bank to prevent the inflationary scourge will be to reduce the supply of primary currency. In this process, the central bank will record certain losses (Seniority tax, for example). If the population and commercial banks follow the trend of permutation from the fiduciary, non-interest-bearing perpetual currency (in the form of cash) to the electronic currency, the central banks will in the future lose their object of activity (Dowd, K., 1998, p. 327).

Financial-monetary innovation depends to a large extent on both the right to benefit from market success and the market exit in the event of bankruptcy. Markets are run metaphorically by people who are willing to take on the risks of looking for new opportunities and profits. In this process, often private, unofficial information becomes legalized by the government; in general, the market is leading the innovation process, followed by government authorities. Stable step-by-step interventions can cause more problems than can be solved. For example, too stringent regulations imposed on experimentation, leading to a very expensive electronic market, will hinder the evolution of the electronic money.

3. Conclusions
Adopting the virtual (virtual) coin system around the world will take a long time. For this to happen, the new type of currency must equate the liquidity and the anonymity of the normal currency and then the universal acceptability. The versions of electronic coins, which are closest to the advantages of the traditional currency, seem to have the greatest success in the future.

Analyzing the electronic currency, it can be said that its implementation is the beginning of a revolution by generating global competition. To gain notoriety, globally, it is necessary to win international clients, to become completely anonymous. Currently, banks have a key advantage: customer trust on storage. Such trust will also have to be borne by the electronic currency, because in its present variants it offers different degrees of intimacy, depending on the issuer. A serious problem, globally, will be the possibility of penetrating into the electronic monetary system, which would be equivalent to penetration into the monetary system of states. That is why authorities need to take regulatory action at national level and get involved in coordinating international regulations.

A bold idea would be the tendency towards unification of electronic money systems and the achievement of a unique monetary system. Of course, at this stage is utopia, but the possibility of such unification in the future is not excluded. If we do not take into account the current crisis, there are reasons to be optimistic about the long-term prospects of the electronic money. That is why we have the task of looking beyond current issues, of having a clear perspective on the future possibilities of implementing the electronic money and its implications on sustainable social systems. **The conclusion is that electronic money is the new logical and natural step in the evolution of currencies.**


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