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The Global Crisis

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OXFORD

IN SEARCH OF ORDER IN THE WORLD
MONETARY SYSTEM: STATE INTERVENTION
AFTER THE DECLINE OF THE *LEX MONETAE*

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A. Introduction

24.01 Over the past decades, the basis of the traditional *lex monetae* has been eroded as a result of drastic change in the global economy and world financial markets. In fact, today, major currencies are delocalized and traded in a similar way to securities and commodities. This means that currency no longer functions as a proper scale for measuring the value of goods and services that are traded in the international economy. Today, we live in a world where pricing goods or services cannot be adequately expressed in a currency figure, because currency itself fluctuates as the subject matter of trade and reflects day-to-day volatility in foreign exchange markets. Under the circumstances, the legal and regulatory focus for the international trade of goods and services inevitably should change from regulating currency to searching for a new means of valuing goods and services. In this chapter, we try to explore ways that laws and regulations, or state intervention, can ensure stability in the international monetary system in the modern world where the traditional *lex monetae* has

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become much less important. We argue that the idea behind the *lex monetae* should nevertheless be maintained in a new form as a fundamental means of state intervention in order to ensure stability in the international economy.

B. Change of the Role of Currency

Over the past decades, the role of currency has changed significantly. As currency has become the subject matter of financial transactions, currency has lost its traditional function as money, which, in turn, led to a world where we no longer have a reliable scale for measuring the value of goods and services. Also, payments and settlements for the international trade of goods and services were traditionally made with the movement of currencies, but this has changed drastically. Today, such payments and settlements are made by book-entries across bank accounts outside the reach of monetary authorities. With all of these developments, the traditional role of currency has declined significantly.¹ 24.02

(1) From Money to the Subject Matter of Trade

Since the floating exchange rate system came into being in 1973 as a result of the collapse of the Bretton Woods system,² the value of any major currency has been expressed in terms of its exchange rate to each of other currencies. Thus, unlike under the fixed exchange rate system, the value of currency is only relative. This indicates that the international community has lost a commonly reliable scale of measuring the monetary value of goods and services.³ 24.03

The liberalization of capital transfers predated the move from the fixed exchange rate system to the floating system,⁴ and in theory, these two events are mutually independent. However, since the floating exchange rate system and the liberalization of capital transfers were combined, they have had a drastic effect on the international monetary system and have brought about a significant change in the role of currency. In the days when traditional trade was the primary means of economic interaction among states, foreign exchange was mostly for current payments and hence the foreign exchange market was subsidiary to international trade. However, today, the foreign exchange market asserts its own existence, and major currencies are traded in a similar way to securities and commodities in the global financial market. Of several trillion US dollars in daily foreign exchange transactions, only 24.04

¹ This part draws mostly on K Sono, 'The Changing Role of Currency: Toward a Catastrophe or a New System?' 38 *Japanese Annual of Intl Law* 82 (1995), where more extended discussion is found.

² See eg PR Krugman and M Obstfeld, *International Economics: Theory and Policy* (8th intl edn, Pearson Addison-Wesley, 2009) pp 515–18.

³ It is well known that currency as money performs three functions: a medium of exchange, a unit of account, and a store of value. See Krugman and Obstfeld, above n 2, at 352–3. All of these three functions have declined. Note that absence of currency as money does not logically mean lack of a scale for measuring the value of goods and services, because certain commodities may function as a unit of account. Thus, here we mean that currency has lost its function as a unit of account and, as a relative matter, there are less reliable figures serving as such a scale today.

⁴ See Krugman and Obstfeld, above n 2.

a small percentage relates to current payments for traditional trades of goods and services.⁵ Most of the rest are for financial (or capital) transactions. Also, not only the freedom of foreign exchange but the freedom of domestic account-holding in foreign currencies is commonly recognized in many countries. As a result, today, currency exchange rates are determined by financial transactions in which currencies are the subject matter of the transactions, and currencies do not serve as a reliable measure of the monetary value of goods and services.

- 24.05** Moreover, the global financial market has grown so immensely that even concerted interventions by central banks and other state monetary authorities to combat volatility in exchange rate movements often prove ineffective in the face of massive speculative activities by hedge funds and other private investors in the marketplace. The situation is aggravated by globally computerized financial transactions that are often beyond the effective control of central banks and other state monetary authorities.
- 24.06** Under such uncertain circumstances with volatile change in foreign exchange rates, ordinary business by firms in non-financial sectors is extremely difficult to carry on, as seen by the turmoil in the present global economy.⁶
- 24.07** Meanwhile, because fluctuating exchange rates produce risks, various complicated derivatives products have been developed in the marketplace to provide hedging techniques against such risks.⁷ Ironically, the development of the derivatives market has lessened the concern over the instability of exchange rates to some degree. However, aggressive speculative moves in the derivatives market by hedge funds and other investors have resulted in the increase, rather than decrease, of the volatility in the currency exchange market, and the widespread failure by commercial banks properly to measure and manage large settlement or liquidity risks in the global foreign exchange market is posing a threat to world financial stability. This situation also aggravates the difficulty, for firms in the industrial sectors, of productive business planning. Non-financial firms even ventured to participate in the speculative games in the foreign exchange market, and often failed.

(2) Blurring Meaning of 'Payment'

- 24.08** While currency has changed from a means of payment to the subject matter of financial transactions, there are other forces that have blurred the meaning of 'payment'. Indeed, the

⁵ At the end of the first half of 2009, the gross market value of foreign exchange OTC derivatives in the world total US\$2.5 trillion and its notional amount is US\$45 trillion, while exchange-traded foreign exchange derivatives show the total notional amount of US\$240 billion. See Bank for International Settlements, *OTC Derivatives Market Activity in the First Half of 2009* (November 2009) (available at: <http://www.bis.org/publ/otc_hy0911.htm>).

⁶ It has been pointed out that, over the long term, exchange rates roughly reflected changes in monetary and fiscal policies and their broad movements do not appear to be the result of destabilizing speculation. See Krugman and Obstfeld, above n 2, at 555. Even a recent, radical view admits that the relative values of the major currencies have remained secularly unchanged since the end of the Bretton Woods system. See P Patnaik, *The Value Of Money* (Columbia University Press, 2009) p 240. Thus, exactly what effects short-term volatility in the foreign exchange market may produce is the question, and we admit that different views can be expressed on this difficult question.

⁷ For how multinational companies are run today in the face of foreign exchange rate risk and other risks, see generally G Bekert and RJ Hodirck, *International Financial Management* (Pearson Prentice Hall, 2009).

development of electronic fund transfers (EFT) (today, often referred to as 'remittance') has revolutionized the means for discharging monetary obligations, and correspondingly, the meaning of 'payment' has blurred.⁸ One might assimilate the application of EFT techniques to 'payments' as this process is sometimes called the 'global payment system'. Most significantly, an illusion has been created by this label that money 'moves' freely beyond national borders through the electronic 'fund transfer' network. In fact, however, EFTs are only accounting phenomena without accompanying any move of currencies, and they are mostly made among private parties.⁹

(3) Decline of the Role of Currency in Settlements

Today, since the settlement of monetary obligations is mostly through adjustments in accounts and does not require any settlements in cash, these obligations do not need to be expressed in any national currency unit as far as an agreed formula exists for the participants as to how they will be recalculated back into national currency units when necessary. Thus, for example, before the present euro, the European Currency Unit (ECU), which was a monetary but non-currency unit of value, was already used quite popularly as a unit of account, eliminating the need of conversion from one currency to another each time an account was settled across national borders within the relevant European region.¹⁰ As long as debit and credit book-entry actions across bank accounts continue to be relied on for the settlement of monetary obligations, accounts could be kept continuously in such a non-currency unit. 24.09

Thus, in international financial settlements, the weight of currencies has significantly declined. Also, since account settlements do not at all indicate the movement of currencies, the extent of credit in accounts can be boosted as long as the banks involved are willing to do so. As long as participants have confidence in such an illusion, it may be a matter of little concern. However, once the confidence in such numerical figures in accounts is shaken, the reaction will be catastrophic. This is what we have observed in the financial turmoil since the autumn of 2008. 24.10

C. Decline of State Control

The drastic change in the marketplace as described in the preceding section has inevitably changed the role of currency, and correspondingly, the power of states to control currency (and thus the economy) has become significantly vulnerable. 24.11

⁸ See generally Committee on Payment and Settlement Systems at the Bank for International Settlements and the World Bank, *General Principles for International Remittance Services* (January 2007) (retail markets); Bank for International Settlements, *New Developments in Large-Value Payment Systems* (May 2005) (wholesale markets). See also Committee on Payment and Settlement Systems at the Bank for International Settlements, *The Interdependencies of Payment and Settlement Systems* (June 2008). These reports are available at the website of the Bank for International Settlements at: <<http://www.bis.org/>>.

⁹ *Ibid.*

¹⁰ See Krugman and Obstfeld, above n 2, at 567. More generally for EMS institutions and experience, see F Giavazzi and A Giovannini, *Limiting Exchange Rate Flexibility: The European Monetary System* (1989).

(1) Decline of the *Lex Monetae*

- 24.12 Traditionally, an important element of a state's sovereignty was its monetary sovereignty. The economic well-being of a state rested on the stability of the monetary system which the state was entitled to maintain. Its monetary authority controlled the supply of credit, and the economy was geared to its maximum potential. In order to accomplish this, restrictive legal rules were imposed as the *lex monetae* upon the manner of use of the currency, in addition to its definition. Typical of such measures were the legal tender rule, mandatory nominalism, home currency rule, and the prohibition of value maintenance clauses.
- 24.13 Thus, the *lex monetae* aims at maintaining monetary order for the state that issued the relevant currency. This authority of the *lex monetae* derives from the exclusive sovereign power that each state possesses to determine what constitutes legal tender within its territory, and the nominal value of the currency. It is therefore also understood to mean that each state has exclusive authority to replace its currency with a new currency and to fix the conversion rate of the old currency. Other states must recognize that determination.¹¹
- 24.14 However, as noted above, under the present floating exchange rate system, the value of a currency is expressed in terms of its exchange rate to each of other currencies and it is only relative. In addition, major currencies have come to be traded in a similar way to securities and commodities. The choice of the currency to be used in a transaction is left to the private parties. Under such circumstances, the usefulness of the traditional rules known as the *lex monetae*, which had been developed to sustain the objectives in the management of a state's own currency, has declined, and answers to many legal questions are now left to the world of the *lex contractus*. Private parties in the marketplace are now expected to deal with the risk of currency fluctuation and other changes they face individually.
- 24.15 Nevertheless, it must be noted that the arrival of the euro in the European Monetary Union in the late 1990s provided us with an opportunity to be reminded that the doctrine of the *lex monetae* may still perform extremely important functions for the maintenance of international monetary order. The successful conversion of national currencies belonging to the European Monetary Union into the euro, guided by a series of EC Council Regulations, and the consequential assurance of the continuity of contracts, would not have been possible without the support of the doctrine of the *lex monetae*.¹²

¹¹ FA Mann, *The Legal Aspect of Money* (5th edn, Oxford University Press, 1992) pp 272–3. See also C Proctor, *Mann on the Legal Aspect of Money* (6th edn, Oxford University Press, 2005) pp 332–40 (discussion on how the *lex monetae* principle has been applied in concrete cases).

¹² With regard to the monetary legislation of the European Union for the introduction of the euro and the replacement of national currencies, the International Law Association at its Taipei Conference in 1998 adopted a resolution, upon recommendation of its Committee on International Monetary Law, which recognized 'the exclusive competence of the *lex monetae*' in exclusion of any other states' intervention. See Report of the Sixty-Eighth Conference of International Law Association 454 (1998). As to some confusing states of legal opinions which led to the adoption of the above resolution, see M Gruson, 'The Introduction of the Euro and its Implications for Obligations Denominated in Currencies Replaced by the Euro', 21 *Fordham Intl LJ* 65, 78–80 (1997).

(2) Difficulty of Knowing Derivatives Market

As noted above, the growth of the derivatives market has been remarkable. One of the major problems is that the size and status of the derivatives market is not easy to know. Financial derivatives are often off-balance-sheet and over-the-counter activities. Moreover, derivatives transactions are private contracts, and there would be no foreign exchange transaction that is subject to the relevant reporting requirement until they are actually executed. Thus, when options are sold and purchased without being exercised, there would be no way for the relevant states to know the total picture.¹³ Consequently, despite the ever-expanding scale of these derivatives transactions, undesirable implications of derivatives for the stability of the foreign exchange market have received little attention until recently. 24.16

(3) Unbundled Linkage to Payment

Finally, the fact that most international financial settlements do not accompany the transfer of currencies has also raised a problem for states. Traditionally, it was common understanding that control over the supply of credit in an economy was in the hands of its monetary authority. The amount of currency that was placed in circulation was important because of its direct link to 'payment'. Even if EFTs have become the major way of financial settlement, monetary authorities could maintain their grip on account settlements if they were confined within one territory. Indeed, these were the bases on which state monetary authorities exercised their control over the supply of credit. However, the overwhelming spread of account settlements on a global scale often bypasses central banks and other state monetary authorities. Credits are freely created according to the willingness of the parties involved in the fund transfer system outside the regulatory reach of each state's monetary authority, and even without their knowledge, until a crunch suddenly surfaces. 24.17

D. In Search of Order out of Chaos: Can States do Anything?

We believe that the source of the present chaotic situation surrounding currencies and foreign exchange markets is the recognition of the complete freedom of capital transfers.¹⁴ Freedom of capital transfers itself might not have caused a problem when the fixed exchange rate system was in place.¹⁵ When it was combined with the floating rate system, it changed the landscape. 24.18

¹³ Today, Bank for International Settlements collects and publishes data on OTC derivatives. See above n 8. So the size of the derivatives market is estimated. Yet the exact status of this market and the details as to how the market operates are far from known.

¹⁴ Joseph E Stiglitz, Nobel Prize laureate, stated: 'I believe that capital account liberalization was the single most important factor to the [East Asia] crisis.' J Stiglitz, *Globalization and Its Discontents* (Penguin Books, 2002) p 99.

¹⁵ For an argument that fixed exchange rates combined with mobile capital can be unstable, see eg M Obstfeld and K Rogoff, 'The Mirage of Fixed Exchange Rates', 9 *J Economic Perspectives* 73 (1995). See generally Krugman and Obstfeld, above n 2, at 557. Also, in this connection, in the 1997/8 crisis, a few Asian countries experienced attacks by currency speculators on their pegged or otherwise fixed exchange rates.

24.19 One might say that state intervention is unnecessary and private parties acting in the marketplace under the rules of the *lex contractus* should deal with the problem appropriately. We believe, however, that the financial crisis since the autumn of 2008 shows market failure and raises the need to ask whether states can (and should) do something.

24.20 Logically, there are two ways states can do something to deal with the present situation so as to regain stability in the delocalized currency market. One is to place some regulations on the complete freedom of capital transfers. The other is a more indirect approach. For the latter, we note two methods. One is to reduce the number of (major) currencies, and the other is to rely on common units of account or currency.

(1) Rethinking the Liberalization of Capital Transfers

24.21 The Articles of Agreement of the International Monetary Fund (IMF; 'IMF Agreement') encourages members to liberalize restrictions on current payments and transfers (Articles VIII and XIV).¹⁶ However, the approach is different for capital transfers. With regard to capital transfers, Article VI, Section 3 of the IMF Agreement provides, in part, that 'members may exercise such controls as are necessary to regulate international capital movements'. Thus, by joining the IMF, each member state did not surrender its own sovereign power to regulate capital transfers. This was because the primary and original objective of the IMF under the Bretton Woods system was substantially to establish and maintain a foreign exchange mechanism for current payments so that the flow of trade will not be disturbed.

24.22 Meanwhile, during the late 1960s, under the influence of the Organisation for Economic Co-operation and Development (OECD), the IMF took a position to favour the freedom of capital transfers primarily with the promotion of direct investments in mind. However, this was an event in those days when the fixed exchange rate system was still in place and room for speculative transactions on currencies was very limited.

24.23 However, even after the floating system commenced, the principle of the freedom of capital transfers was carried over without its adequacy being questioned. Moreover, since this coincided with the rapid expansion of global computer networks, the foreign exchange market has become massive and predominantly speculative. Nevertheless, even during the Asian capital market crisis in 1997/8, the IMF maintained that even short-term capital transfers should not be regulated.¹⁷ In such a general atmosphere, only those currencies freely convertible in the capital market have been called 'hard' and often 'major' currencies.

24.24 Viewed this way, it may be worthwhile to re-concentrate seriously on the wisdom of the absolute freedom of capital transfers and particularly that of short-term ones. This exercise

We believe that resulting instability takes a different form and is more difficult to deal with where floating rates and the freedom of capital transfers are combined.

¹⁶ Articles of Agreement of the International Monetary Fund (available at: <<http://www.imf.org/external/pubs/ft/aa/index.htm>>).

¹⁷ See Stiglitz, above n 14, at 89–104.

may call not only for a return to the literal reading of Article VI, Section 3 of the IMF Agreement but also for going even beyond it. As we observe immediately below, this possibility has already been hinted at in Article XI, Section 2 of the General Agreement on Trade in Services (GATS) of the World Trade Organization (WTO).

(2) Unused Power of IMF to Regulate Capital Movements

The GATS of the WTO came into force on 1 January 1995, heavily loaded in particular with provisions aimed at assuring the universal freedom of banking services. Article XI, Section 2 of the GATS provides that **24.25**

Nothing in this Agreement shall affect the rights and obligations of the members of the International Monetary Fund under the Articles of Agreement of the Fund, including the use of exchange actions which are in conformity with the Articles of Agreement, provided that a Party shall not impose restrictions on any capital transactions inconsistently with its specific commitments under this Agreement regarding such transactions, *except* under Article XII or *at the request of the Fund*.¹⁸ (Emphasis added.)

Article XII, referred to above, is a provision that authorizes a state to maintain restrictions on trade in services in order to safeguard the balance of payments, and such an idea is not uncommon to this kind of agreement. However, the last phrase, that is, 'except . . . at the request of the Fund', calls for a fresh reading and it may not become comprehensible unless one can divorce its way of thinking from the past practice of the IMF.

Above all, Article IV, Section 1 of the IMF Agreement, which is entitled 'General Obligations of Members', is the key provision for a comprehensive understanding of the original role of the IMF in regard to the international monetary system, and this section provides that 'each member undertakes to collaborate with the Fund and other members to assure orderly exchange arrangements and to promote a stable system of exchange rates'. Moreover, the IMF, on its part, is obligated to adopt 'specific principles for the guidance of all members' with respect to their exchange rate policies (Article IV, Section 3(b) of the IMF Agreement). **24.26**

Meanwhile, a member's right to regulate capital transfers under Article VI, Section 3 of the IMF Agreement, as noted above, is also relevant in Article XI, Section 2 of the GATS. This GATS provision indicates an important restriction on the member's use of such a 'right' in that the use must be 'in conformity with' the IMF Agreement. **24.27**

Thus, while the importance of international capital flow has grown dramatically, we note that the original text of the IMF Agreement itself was in fact constantly flexible to accommodate future developments in the international community. It is hoped that this encouraging provision in the GATS, which refers to the relationship between the IMF and the WTO in such a positive manner, will strengthen our expectation that we can go beyond. **24.28**

¹⁸ General Agreement on Trade in Services (available at: <http://www.wto.org/english/docs_e/legal_e/26-gats_01_e.htm>).

(3) Prescriptions Without Regulating the Freedom of Capital Transfers

- 24.29 Imposing regulations on the freedom of capital transfers may not be easy for political or other reasons.¹⁹ We must note that, even without being able to do so, there can be plausible ways of state intervention. For instance, the extent of speculative transactions in the foreign exchange market will be alleviated if the number of currencies involved is reduced. The solution in this line of thinking suggests the adoption of a common currency or common monetary unit of account.
- 24.30 The experiences of the euro may provide an opportunity to reassess afresh how the *lex monetae* could be re-established in a global context. In this context, today, we might note that the increasing voice in the East Asian region favours the creation of a common unit of account for regional dealings. Also, in East Asia, there is the 'Chiang Mai Initiative' comprising a multilateral swap arrangement, and a network of bilateral swap agreements with available funds increased to US\$120 billion from US\$80 billion, which is enough to be used against speculative capital movements and for liquidity support.²⁰ There are movements to establish monetary unions in other regions as well. Winds may have already started blowing in search of a more stable global or at least regional measure of economic value. Such movements will definitely make speculations in currencies less attractive in those regions and their impacts on the stabilization of monetary measures may spread even beyond those regions.

(4) Reinforcement by SDR

- 24.31 Meanwhile, as is well known, a new concept of potential international reserve assets in the form of SDRs (Special Drawing Rights) was introduced in 1969 by the First Amendment of the IMF Agreement. Basically, the background for this issuance lies in the inescapable fact that the US dollar, which was given the role of the core international currency under the Bretton Woods system, is a domestic currency. Thus, the expectation of a continued supply of international liquidity by the issuance of more US dollars started to become gradually incompatible with the control of the US domestic economy, particularly after 1960 when Robert Triffin wrote the famous *Gold and the Dollar Crisis*. He warned that the US holding of gold had become insufficient to fulfil its obligation to convert US dollars to gold under the IMF Agreement and that the situation was worsening.²¹
- 24.32 This was the reason SDRs were devised as an innovative way to supplement international liquidity.²² Article XVIII, Section 1(b) of the IMF Agreement stated, inter alia, that the first decision to allocate SDRs should take into account a collective judgement that

¹⁹ The well-known 'trilemma of the exchange rate regime' states that of three goals that most states are usually said to share—independence in monetary policy, stability in the exchange rate, and the free movement of capital—only two can be reached simultaneously. See Krugman and Obstfeld, above n 2, at 650. For political accounts and experience, see Stiglitz, above n 14.

²⁰ See Joint Press Statement on ASEAN+3 Cooperation in Response to the Global Economic and Financial Crisis (3 June 2009) (available at: <<http://www.mofa.go.jp/region/asia-paci/asean/conference/asean3/joint0906.pdf>>).

²¹ R Triffin, *Gold and the Dollar Crisis: The Future of Convertibility* (Yale University Press, 1960).

²² For the background and an explanation of the SDR system, see P Isard, *Globalization and the International Financial System* (Cambridge University Press, 2005) pp 32–3.

there is a global need to supplement reserves. Thus, the SDRs were appropriately called 'paper gold'.

Unfortunately, however, the creation of SDRs was rather too late because the USA subsequently declared in August 1971 the suspension of the convertibility of US dollars into gold, thus marking the end of the original Bretton Woods scheme. If the SDR system had been devised much earlier and if their issuance had constantly been increased to assume much more weight in international liquidity, it may also have been possible for the IMF to step forward to assume a more central role in the world monetary system.²³ 24.33

Moreover, after the exchange rate started to float in 1973, the meaning of 'international liquidity' has gradually blurred because it has become easy to obtain any necessary funds from the global capital market. Thus, several attempts within the IMF for the issuance of more SDRs were not favourably received. The reasons for this failure vary, but it well reflects the existing confusion about the implication of a new issuance of SDRs under the floating exchange rate system. Indeed, the quick development and expansion of capital markets seemed to have lessened even the need to discuss whether the supply of international liquidity was adequate. 24.34

However, today's crisis in the global financial world brought a remarkable change in the attitude of the IMF towards SDR. In August 2009, the IMF changed its stance and decided to allocate US\$250 billion SDR anew (more than eight times the amount of the previous SDRs) for use as reserve assets of central banks primarily as a means to supply more liquidity for developing countries. Thus, some members may choose to sell part or all of their allocation to other members in exchange for hard currency (for example, to meet balance of payments needs) while other members may choose to buy more SDRs as a means of re-allocating their reserves.²⁴ This is quite interesting. Should the SDRs be expected to assume the role of a common global unit of currency rather than a unit of account, the compatibility of SDR with the floating exchange rate system may pose difficult questions. This trend may be viewed, nevertheless, as a recurring focus on currency, and it may raise the need for further reconsideration of the role of national currencies. 24.35

E. Conclusion

In the world where the floating exchange rate system and the freedom of capital transfers are combined, the role of currency as the scale of measuring the monetary value of goods and services has seriously declined. Currencies no longer operate as money, and they are rather traded as the subject matter of trade in the financial market in a similar way to 24.36

²³ Isard, above n 22, expresses a view that the collapse of the Bretton Woods system was not the result of reserve shortages and thus it would be misleading to say that SDR or international monetary reform came 'too late'. *Ibid.*, at 34.

²⁴ See 'IMF Governors Formally Approve US\$250 Billion General SDR Allocation' (IMF Press Release No 09/283, 13 August 2009) (available at: <<http://www.imf.org/external/np/sec/pr/2009/pr09283.htm>>). See also 'IMF Executive Board Backs US\$250 Billion SDR Allocation to Boost Global Liquidity' (IMF Press Release No 09/264, 20 July 2009) (available at: <<http://www.imf.org/external/np/sec/pr/2009/pr09264.htm>>).

securities and commodities, which trade in turn is subject to day-to-day speculative investment activities. Instability brought about by this lack of a scale by which to measure the value of goods and services is immense. Correspondingly, the significance of state intervention in the form of the *lex monetæ* has declined drastically. Today, especially after the financial crisis since the autumn of 2008, states have been in search of ways to regain control for ensuring stability in the international monetary system. We suggest what could come in the aftermath of the decline of the *lex monetæ*, so that states (and thus the international community) can be more responsible for stability in today's delocalized foreign exchange market. Indeed, we have already observed some trends towards new attempts, as noted above. Whether these new trends towards a new type of regulation and international coordination will have an impact on the international community and global economy remains to be seen. It may be fair to say that, because currency or money is a creature of law, stability in the international monetary system is contingent and depends upon what states agree (in a much broader context) with respect to the manner in which they attempt to manage and control their economies.

AN INSTITUTIONAL THEORY OF MONEY

*Antonio Sáinz de Vicuña**

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When I was young, I thought that money was the most important thing in life;
now that I am old, I know it is.

(Oscar Wilde)

A. Introduction

This chapter aims at presenting a concept of money for the start of the twenty-first century: a concept that the 2007 to 2009 financial crisis has confirmed; namely, that money is no more than credit against an obligor, whose acceptance as a store of value and as a means of payment by the public is dependent on a comprehensive legal framework that ensures stable purchasing power, its availability even in times of banking stress, and its functional capability to settle monetary obligations. It is no longer a chattel, but a transferable credit within an overall institutional legal framework. **25.01**

Two theories have hitherto been paramount in defining the concept of money: the state theory of money, according to which money is what the sovereign defines as such;¹ and the societary theory of money, according to which money is what society accepts and uses as money, irrespective of government.² **25.02**

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¹ The main authority in that school of thought being the German author Georg Friedrich Knapp (*Staatliche Theorie des Geldes*, 1905). Many constitutionalists consider coinage as one of the basic powers of the sovereign (*ius cudendae monetae*).

² A long-standing school of thought considers money as a commodity. The Latin for 'money', *pecunia*, stands for property in cattle used as money in ancient times. Other chattels have been used for trading in

- 25.03** Both theories are based on money's role in mankind's history until the last quarter of the twentieth century. But several processes and events have since taken place that render both theories inadequate to define money in the twenty-first century. It is submitted that a new theory of money is needed to reflect today's realities. This chapter calls this new concept the 'institutional theory of money', where the term 'institutional' refers both to the crucial importance of the institutional set-up under which money is created and used (that is, the role played today by the central banks as liquidity controllers, for which they have become independent from the state, the role of financial services as money intermediaries and multipliers, and the role of the state as legislator), and to the legislative framework under which they operate, which allows for an overwhelming predominance of dematerialized currency (or scriptural money) over the use of cash.

B. The Functions of Money

- 25.04** Traditionally money has served three functions: a measure of value, a store of value, and a means of payment. These three functions have changed in the course of the last century.
- 25.05** The first monetary function of money is to represent value. It measures the value of goods and services by way of a standardized unit; for this it has to be an instrument able to retain value over a period of time.
- 25.06** In the last quarter of the twentieth century the historical step of disconnecting money from any objective intrinsic value was finally taken. For the 25 centuries from the invention of coinage in ancient Mesopotamia³ until the decision by the Nixon administration on 15 August 1971 to disconnect the US dollar from gold,⁴ money had an intrinsic value related to physical goods, and to metals in particular.⁵ The twentieth century started with money still being based on gold and silver, and ended with the collapse of the Bretton Woods system and thus with the severance of all currencies from objective standards of value. The state theory of money is based on the concept that the sovereign has the capacity to set and define the value of money. From the establishment of the Bretton Woods system in the mid 1940s until 1971, the sovereigns fixed a parity of their national currencies in terms of gold or the dollar, which had its value fixed in terms of gold, and kept a system of fixed but adjustable exchange rates. This has now been abandoned. New currencies post-1971 no longer refer to a gold or silver value.⁶ The value of money responds to the

international trade or in primitive societies. This approach does not require an authority imposing or regulating its use as money. Medieval and Renaissance authors (Bartolus and Pufendorf), when states did not yet properly exist, defended this societary theory of money; sovereigns took their seigniorage by minting metal coins, with the effect that metal value did not correspond to the nominal value defined as a measure of value for exchange, with the consequence that not all coins were accepted by traders at face value. In recent times, Ascarelli (*La Moneta*, 1928) supported this approach.

³ Where for the first time gold medals were minted for use as means of exchange.

⁴ That unilateral announcement was followed by central banks all over the world abandoning in spring 1973 the existing regime of fixed but adjustable exchange rates, and led on 1 April 1978 to the Second Amendment to the IMF's Articles of Agreement abolishing the gold parity of members' currencies.

⁵ In fact, many currency names are taken from the weight of the metal used: pound, mark, peso, etc.

⁶ Currencies based on a currency board arrangement may however retain a definition in terms of the anchor currency.

monetary policy of central banks and to market forces (in many countries still influenced by exchange controls and other administrative means).

This chapter maintains that the concept of money, in a situation of global markets and modern communication technologies, is now inseparable from the institutional set-up of the central banks (that is, their independence, mandate, and *instrumentaria*) and from the normative framework under which central banks, credit institutions, financial infrastructures (for example, payment systems), and markets operate, which ensures the stability and the functionality of money. The value of money no longer depends on the will of the individual sovereigns. Professor Giovanoli, reflecting on the severance of money from gold, wrote⁷ that '[o]ne could say that, from the monetary standpoint as well, the age of Copernicus, in which everything was thought to revolve around the sun (or, in this case, gold) has given way to Einstein's era of universal relativity.' This chapter submits that the value of money depends on the central banks' monetary policy within a given institutional and normative framework. 25.07

The twentieth century ended in Europe with the creation and the introduction of a new currency, the euro, in January 1999. The euro corresponded to the above concepts: it was defined so that it was no more than a name and the legislator did not provide any intrinsic or objective value for it. Council Regulation (EC) No 974/98 of 3 May 1998 on the introduction of the euro limits itself to providing that the euro will be the currency of the participating member states, the unit being one euro divided into 100 cents.⁸ The euro is thus legally defined without any reference to value. In this, it differed from existing European monetary units of account. Its link with the previous national currencies (the 'recurrent link') was a link with several floating currencies, with no other value than that traded in the markets. Its relation to the European currency unit or ecu was defined as 'one to one', but without referring to the legal definition of ecu as a sum of specific amounts of component national currencies, which had been legally defined at their origin as equivalent to a certain amount of gold.⁹ 25.08

As a necessary consequence of the above, the recurrent link for the euro, that is, the conversion rates for the replaced national currencies, was legally defined at close of business on the eve of the introduction of the euro, on 31 December 1998,¹⁰ and such rates were based on the market value of the component currencies on the last business day before the currency change. Furthermore, the market has throughout these initial periods been totally free, as it is today. No particular protective measures were used: exchange control restrictions had been totally abolished in the European Union since 1992, and any national prohibition on indexation clauses, limitations in the domestic use of foreign currencies, 25.09

⁷ M Giovanoli, 'Virtual money and Global Financial Markets: Challenges for Lawyers', *Yearbook of International Financial and Economic Law*, 1996.

⁸ OJ L 139, 11.5.1998, 1.

⁹ The ecu, created in 1978, replaced 'one-to-one' the European Monetary Unit of Account (EUA), which had been defined in Regulation (EEC) No 907/73 of the Council of 3 April 1973 establishing a European Monetary Cooperation Fund (OJ L 89, 5.4.1973, 2) as equivalent to 0.788867088 grams of fine gold.

¹⁰ Council Regulation EC/2866/1998 of 31 December 1998 on the conversion rates between the euro and the currencies of the Member States adopting the euro (OJ L 359 31.12.1998, 1). Successive enlargements of the euro area have entailed corresponding amendments to that Regulation.

requirements subjecting access to domestic capital markets by non-resident issuers to monetary authorization, became obsolete. The euro was launched in totally open and free market conditions.¹¹

- 25.10 The value of the euro since its launch is the result of the monetary policy of the Eurosystem.¹² Neither the member states nor the Community may establish the value of money.
- 25.11 The other monetary function of money is its ability to settle monetary debts. Traditional legal doctrine—and the public at large—still tends to consider the concept of money as synonymous with banknotes and coins. These are the only physical manifestations of money. At the start of the twenty-first century such an approach is no longer valid, in view of the overall predominance of dematerialized money, at least in developed economies, where cash is used only to settle petty amounts; companies do not use cash for their business-to-business operations. Cash is used only in retail face-to-face markets, and even these face competition from e-money, credit cards, debit cards, online debits, cheques or bank transfers, computer money,¹³ mobile phones,¹⁴ and chip cards, which have made the acceptance of cash virtually optional, if not burdensome, costly, and even risky. Global financial markets settle daily payments in huge amounts where use of cash is impossible.
- 25.12 When monetary union in Europe started on 1 January 1999 the euro was launched without euro banknotes or coins; monetary law provided that the national banknotes and coins would represent non-decimal subdivisions of the euro, and, importantly, introduced a provision that gave legal backing to scriptural payments made in euro.¹⁵ Such a provision meant that from day one of monetary union the wholesale financial markets, which do not use banknotes and coins but operate only with scriptural money, re-denominated into euro and functioned in euro.
- 25.13 The latest Bank for International Settlements data for 2005, based on amounts transferred through payment systems¹⁶ and on cash receipts by credit institutions, show that the amount of average daily payments in cash as against non-cash is absolutely marginal, estimated to be between 1 and 5 per cent of total amounts of average daily monetary settlements (admittedly, the number of individual payment transactions in cash is very high—and impossible to measure—but these are for limited amounts). National custom is important in determining the lower or higher use of cash in daily activities.

¹¹ The fact that a few central banks conducted market interventions on 31 December 1998 to achieve full identity of conversion rates with the conversion rates pre-announced by the European Monetary Institute in spring 1998, does not challenge the idea that it was the market that determined the value of the new currency—basically through futures contracts—and not a government decision.

¹² The term 'Eurosystem' refers to the ECB plus the central banks of the EU member states having adopted the euro.

¹³ Eg PayPal, a subsidiary of eBay, the e-commerce company, is a credit institution established in Luxembourg to safely process internet micro-payments within some 200 national markets and in 18 currencies.

¹⁴ Eg loading a mobile phone's store of credit by phone calls ('purse phones'); chips or barcodes on mobile phone screens readable at supermarkets, discos, ski lifts, etc; devices between telecom companies and credit cards allowing for tele-use of such cards. See 'The future of money', *The Economist*, 17 February 2007.

¹⁵ Art 8 of Regulation (EC) No 974/98.

¹⁶ 'Statistics on payment and settlement systems in selected countries' (yearly in US\$ billion: US CHIPS 349,871; Fedwire 518,547; TARGET 613,614; EURO1/STEP1 53,333; UK CHAPS 140,003).

The statistical monetary aggregate named M1 has two components: currency in circulation (banknotes and coins) and overnight deposits (sight deposits with credit institutions),¹⁷ the sum of which reflects today's concept of money as a readily available universal means of settling monetary debts.¹⁸ EU statistics¹⁹ for M1 reveal that the amount of banknotes and coins in circulation compared to the amount of overnight deposits has relatively decreased for the last 20 years, reflecting the relative increase in scriptural money against cash.

25.14

Table 25.1 Cash and scriptural money

	M1	Of which currency in circulation*	Of which overnight deposits
July 1988	874.3	187.7 (21.5%)	686.5 (78.5%)
July 1998	1,648.0	320.7 (19.5%)	1,327.3 (80.5%)
July 2008	3,838.4	658.8 (17%)	3,179.5 (82.8%)

* The figures in the table reflect both cash held in the vaults and automated teller machines of credit institutions and in the hands of the public; credit institutions tend to hold approximately 10% of total banknotes and coins issued, and therefore the actual figure for cash held by the general public and used for payments is actually some 10% less than the figures in the table.

The concept of 'legal tender' used to be an essential part of the state theory of money: the sovereign had the power not only to determine the value of money but to define the means of payment and to impose on creditors the general discharging power of cash. Frederick A Mann wrote of money being a chattel determined by the sovereign to have discharging power.²⁰ Many laws provide that monetary debts are discharged, unless agreed otherwise, by the delivery of legal tender banknotes.²¹ This is no longer valid, as shown by the fact that money is overwhelmingly not a physical token. The concept of legal tender in the sense of a compulsory means of payment in the absence of agreement is today obsolete, as shown by the following arguments.

25.15

¹⁷ By convention, M1 also includes overnight deposits with the Treasury.

¹⁸ The figure for overnight deposits includes the concept of 'electronic money' or 'e-money', since this concept refers to the devices that operate bank deposits in any way. The monetary aggregate known as M2 includes M1 plus short-term deposits with banks. The monetary aggregate M3 includes M2 plus very liquid marketable instruments. Both M2 and M3 are relevant for monetary policy, since they are part of overall liquidity (for economists: 'broad money'), but cannot be considered within the legal concepts of cash or of scriptural money (for economists: 'narrow money') since they are not readily available for the settlement of monetary debt.

¹⁹ Figures are expressed in billion euro. Amounts for 1988 and 1998 refer to the euro area as composed at the start of monetary union in 1999 (that is, 11 countries), and 2008 data to the euro area as composed in July 2008 (that is, 15 countries). Data for 1988 were collected before the establishment of the ECB, and therefore are estimates not subject to fully harmonized current statistical methodology.

²⁰ *The legal aspect of money* (5th edn, Oxford: Clarendon Press, 1992).

²¹ Monetary history is rich in showing the various cases where refusal to accept for settlement cash defined as money by the sovereign was qualified as a criminal offence, leading in some cases to very severe sanctions (eg in thirteenth century China, refusal to accept imperial banknotes was punishable by death; in eighteenth century revolutionary France, refusal to accept the *assignats* led to the guillotine; more lenient but still severe sanctions were given by US courts to refusals to accept continental banknotes issued at the time of the War of Independence, or greenbacks during the Civil War; etc).

- Many modern states prohibit the discharge of certain debts in cash,²² for reasons related to tax evasion, the fight against crime, or money laundering. In order to fight against corruption, or for internal control or practical reasons, many national laws require payment by bank transfer to or from the state and public authorities such as the following: tax collectors, government contractors, civil service salaries, payment of subsidies, etc. This begs the question: if the state itself does not accept payment by way of the chartels it defines as legal tender, or prohibits citizens from using legal tender among themselves in certain transactions or amounts, is this not incompatible with the state theory of money?
- All modern states recognize not only the contractual freedom to refuse payment in cash, but also the legal value of custom as a subsidiary source of legal obligations when contracts are silent. And market custom does indeed determine how to settle debt obligations when parties have not explicitly agreed, very often excluding the use of cash: think of the daily settlement figures for wholesale financial markets, stock exchange and Internet trades, e-commerce, and business-to-business transactions. Even in retail, custom may impose conditions on the use of cash: for instance a bus fare cannot be paid with a €500 note, in spite of its legal tender status. Freedom of contract, of paramount importance in today's economies, encompasses acceptance of means of settlement other than cash, as reflected in the statistics shown above on scriptural money: bank transfers, credit cards, cheques, foreign currency, etc. Market parties, and not the state, determine settlement means.
- A survey carried out by the European System of Central Banks to ascertain the legal scope of the concept of legal tender showed that any judicial action aimed at imposing on creditors the acceptance of cash to settle monetary debts, or at sanctioning a creditor's refusal of a payment in legal tender,²³ is outside the range of living memory. Following the survey, Community monetary legislation in 1998 kept silent and avoided giving any substantive interpretation of the Treaty's grant of legal tender status to euro banknotes. Consumer protection legislation, however, limits the right by merchants to unilaterally exclude the use of cash by consumers, in particular in cases of concessions (for example, toll highways) or of popular retailers (for example, supermarket chains). But in the opposite direction, security regulations impose limits on the use of cash by consumers in some cases (for example, petrol stations at night).

25.16 Two conclusions already seem clear: (1) the legal concept of money cannot be identified with physical tokens, and (2) the concept of legal tender does not include a universal legal obligation to accept cash for the discharge of money obligations. Metal currency (coins) is insignificant in overall amount, and, as explained, the discharging character of banknotes and coins cannot, and should not, be imposed by legal means in modern economies, where parties—including the state itself—widely use other more practical means to settle

²² Eg in France, invoices for goods by professionals beyond €1,100 have to be settled by cheque, and payment for goods by consumers above €3,000 have to be settled by law in scriptural money; in Greece, most payments by public authorities beyond a certain amount must be made in scriptural form; in Spain, salaries to public officials have to be paid by transfer or personal cheque; etc. etc.

²³ Although the penal codes in several countries (eg France, Greece, and Italy) still penalize such refusals.

monetary debts. Without prejudice to consumer protection, the use of cash is just one available option. Cash continues to have advantages: anonymity, finality, and convenience for small payments, etc and therefore there will always be demand for cash. But cash has risks (robbery, counterfeiting, destruction, etc), logistical costs, and disadvantages from a general interest perspective (tax evasion, crime proceeds, corruption, no audit trail, etc). Scriptural money has won the day with regard to the basic function of money as a means of payment.

C. An Institutional Theory of Money

Money is issued by central banks in the context of monetary policy.²⁴ This is done by way of crediting accounts held by credit institutions with the central bank. Money created by central banks is therefore a liability that appears on their balance sheets. It consists of the central bank's duty as deposit-taker to allow the deposit-holder (that is, the commercial banks) to withdraw amounts by way of transfer or cash withdrawal (that is, stocks of banknotes). When credit institutions require the mobilization of such credit accounts with the central bank by withdrawing cash, the accounts are debited for the amount of cash physically given to the banks. There is a move on the liability side of the central bank balance sheet from 'Deposits' to 'Banknotes in circulation'. Commercial banks store such withdrawn banknotes, and supply them to their clients on request. The conditions under which money is created as described above are the object of the central banks' monetary policy.²⁵ 25.17

Thus, money is primarily a credit against a central bank. It can take the form of a credit balance on a bank's deposit account with its central bank, or of cash. Banknotes are bearer instruments that physically represent a legal claim against a central bank.²⁶ Such a claim has no maturity and is not redeemable. In the case of the euro banknotes, the claim is against the whole Eurosystem, since euro banknotes are issued on a joint and several liability basis by all Eurosystem members, and thus, regardless of which central bank issued a euro banknote, the other Eurosystem members have a legal duty to accept it. 25.18

Money is also the credit balance of sight deposits made by the public with credit institutions. These have also the legal nature of being claims against a bank, in this case a commercial bank,²⁷ but are considered 'money' because such claims can be transformed on demand into banknotes, that is, into claims against the central banks. Credit institutions have access 25.19

²⁴ Coins are formally issued by the Treasury in most countries, but put in circulation by central banks.

²⁵ The amount of liquidity created, the interest rate applicable, how to select the banks that will receive the new money (tender, eligibility conditions, etc), the legal format in which money is given to banks (eg loan, reverse repurchases—repo operations), the period for which the money is given, the collateral guarantees required (ie which assets guarantee reimbursement at the end of the period), etc.

²⁶ Decision ECB/2001/15 of 6 December 2001 on the issue of euro banknotes (OJ L 337, 20.12.2001, 52).

²⁷ The term 'commercial banks' is used here as shorthand for all kinds of credit institution, ie licensed and supervised entities the business of which is the taking of deposits and the lending on its own account, encompassing investment banks, savings banks, cooperative banks, retail banks, mortgage banks, e-money issuers, etc.

to central bank money, and therefore, in a well-functioning financial system, a credit claim against a bank is considered and used as 'money'.

- 25.20 However, economists differentiate between 'central bank money' and 'commercial money', the first being central banks' liabilities, the second being liabilities of ordinary banks. This second category entails a credit risk, namely, the risk that the bank concerned may not be able to honour its liabilities.²⁸ However, central banks are always able to create liabilities, and therefore no such risk exists. Nevertheless, both classes of money are undifferentiated and fungible for the general public, who normally do not have access to central bank money.²⁹
- 25.21 This is why the institutional set-up and the normative framework have become of essence. They have to ensure:
- stability in the value of money;
 - fungibility and equivalence of claims against the currency issuer and against credit institutions;
 - the functionality and availability of money as a means of exchange.
- 25.22 The term 'institutional' is borrowed and adapted from the academic school of Institutional Economics, sometimes referred to as New Institutionalism, arising within the law and economics movement.³⁰ It uses the concept of 'institution' to encompass structures, organizations, rules and customs, shaping economic behaviour with a high degree of resilience and permanence. In this chapter, it refers to the role and legal set-up of the currency issuer, the central bank, and the legal framework under which the 'other issuers' of money, the commercial banks, perform such monetary function; it also refers to the legal and regulatory framework under which scriptural money circulates within the financial system.
- 25.23 The institutional set-up of central banks is crucial because it affects the value of money in a world where money is no longer anchored to external commodities or physical assets. Whether the banking sector is able to issue money which is reliable and fungible with central bank money depends on the legal construction under which scriptural money operates. Finally, only when the legal, regulatory, and technical aspects of payments infrastructures are sound and reliable, may scriptural money flourish.

D. The Central Bank

- 25.24 The value of money (that is, of the claim against a central bank or against a credit institution) is its *purchasing power*. If the purchasing power of a currency decreases over the course of

²⁸ Eg because of not having sufficient eligible assets to place them as collateral in liquidity-supply central bank operations.

²⁹ Some central banks traditionally keep accounts with non-banks (eg central bank employees, state agencies or bodies, etc).

³⁰ The law and economics movement is said to have started with the 1924 publication of 'Legal Foundations of Capitalism' by economics Nobel Prize winner John R Commons, and has given birth to a series of economics Nobel Prize winners (eg Douglas North, Daniel Kehlmann, and Herbert Simon).

time, public confidence in the currency decreases as well, and markets will reflect depreciation. The intrinsic or extrinsic values that a metal equivalent gave to money in the past have been replaced today by the surge of *institutional frameworks* destined to ensure the permanence over time of the purchasing power of money. The central banks of Europe have all adapted their objectives, tasks, instruments, and decision making to the primary objective of *price stability*. An increase in the price index is tantamount to a reduction in the purchasing power of a currency; that is, a depreciation of its value. In doing this, the central banks of Europe have followed a universal trend, which arose in the 1980s following the demise of Keynesian economics and the acceptance of monetarist theories. Monetary policy is no longer a tool in the hands of government, but one of the necessary elements for currencies.

Indeed, the purchasing power, or the value of money, is the consequence of monetary policy. Excess money supply means an increase in prices and thus reduction of purchasing capacity. This puts the centre of gravity in the monetary system's institutional framework. Once the connection to gold or to any objective standard of value has disappeared, a currency is admitted and trusted by society and markets only when there is an institutional framework that ensures preservation of purchasing capacity, that is, price stability. **25.25**

Modern economies are open to the world. Therefore, there is a relationship between a currency's internal purchasing power (that is, the capacity to acquire goods and services with prices denominated in the national currency), and its external purchasing power (that is, acquisition of goods and services invoiced in a foreign currency), which is more or less important depending on the degree of openness of the economy and of trade with the outside world. **25.26**

Because of this, central banks are normally also given the capacity to influence the currency's exchange rate by holding and managing national foreign reserves. This is then another central bank tool, in addition to monetary policy, to achieve internal price stability. **25.27**

Money is then defined as a direct or indirect credit claim against a central bank which can be used by the public as a general means of exchange and as a store of value, which is originated and managed by central banks in a manner that preserves its availability, functionality, and purchasing value. **25.28**

This institutional theory of money entails that the amount of money—whatever its form, physical or scriptural—must be under the control of the central bank. The central bank has to be in a position to manage money supply, and for this take into account the monetary transmission mechanism,³¹ so as to ensure price stability in the real economy. Crucially, therefore: **25.29**

- the central banks must have as their primary objective price stability; any other objectives must come second;

³¹ The term 'monetary transmission mechanism' basically refers to the impact of financial intermediation on the effect on price levels of interest rate movements by the central bank.

- central banks must have sufficient functional capacity and the means to achieve price stability; the weight of markets is such that monetary policy has to rely on market operations, and not on authoritarian means;
 - central banks have to have autonomous decision making; no external authority should be able to deviate central banks from their crucial monetary role of preserving the purchasing power of the currency: this justifies the need for statutory central bank independence;
 - central banks need to be able to influence legislation in the specific domain that affects money, in particular the legal framework under which financial intermediaries and infrastructures operate;
 - central banks need to ensure the smooth functioning of financial infrastructures, so that scriptural payments are fully reliable; this is achieved by the oversight functions allocated to central banks.
- 25.30 The above central bank role in a world of floating and dematerialized currencies explains the social protagonism that central banking has received in the course of the last years, unparalleled to the rather instrumental role of central banks in the past, either as the interface between metals and currency under the gold standard, or as a subordinate branch of government for the monetary side of economic policy during the Keynesian decades.
- 25.31 The role of the state is nowadays limited to setting the legal framework that corresponds to the above parameters. In the EU, all member states³² have by the end of the twentieth century adapted the statutes of their central banks to the above features, including the 12 new member states. With regard to money, the states are able only to define the name of the currency and its initial recurrent link; in some cases states may have a say in the standardization of cash.³³ But the value of currency, its purchasing power, depends on the amount of money and other factors taken into account by central banks in their monetary policy, without state intervention.
- 25.32 Significantly, the state, the political authorities, under the modern role for central banks, are required precisely *not* to intervene in monetary policy matters. Central banks needed to evolve from being state agencies subordinated to Ministries of Finance and government policies, into being independent in order to become an integral or essential part of what a currency is: in a sense, both central bank and currency are a *toto*, the one cannot be understood without the other. Public trust in currency is public trust in its central bank. The fact that the central bank belongs to a state is—from that perspective—irrelevant: it could be a supranational body or a private entity.³⁴ It is a body with the instruments and capacity

³² Except Denmark for political reasons; its currency is however pegged to the euro under the ERM II.

³³ Some states require governmental approval for the design of national banknotes.

³⁴ Many central banks were born private, and remained private for a long while. In Europe, central banks started to be nationalized thanks to either Marxist approaches to credit (eg the Banque de France was nationalized in 1936 by the Popular Front Government), or socialist ideology (eg the Bank of England was nationalized by the Labour Government in 1946), or Keynesian economics (eg the Banco de España was nationalized by the Franco Government in 1962 in order to put monetary policy in the same hands as fiscal and economic policies). Some European central banks are not 100% owned by the state (eg the Banque Nationale de Belgique/Nationale Bank van België is 50% listed and owned by the public; the Osterreichische Nationalbank

needed to maintain the availability, functionality, and purchasing power of the currency. And the EU Treaty requires not only central bank independence, but even changes one of the most traditional functions of central banking as the banker of Government: the Treaty squarely prohibits central banks from financing the public sector, since this may have expansionary monetary policy consequences.

Moreover, this institutional theory of money entails not only a duty for states to abstain from interfering with the monetary policy of the central bank, but a positive duty to add their bit to ensure the success of monetary policy: sound fiscal policies. The fiscal policy of the state is made subordinate to the superior objective of monetary stability. In Europe this is achieved by way of the fiscal regulations known as the Stability and Growth Pact, providing for overall restrictions on budgetary deficits and for monitoring tools.³⁵ 25.33

E. The Banking System and Scriptural Money

Money is no more than a claim, either against the central bank (banknotes or deposits) or against a licensed credit institution. A payment is no more than a transfer of such a claim. A physical delivery of banknotes is a transfer of the claim against the issuing central bank. A scriptural payment is no more than a novation of both debtor and creditor, whereby the bank with liability for the sender's deposit is replaced by the liability of the receiver's bank; following such novation, the sender ceases to be a creditor against his bank for the amounts sent, and the receiver becomes a creditor for the received amounts *vis-à-vis* his bank; a transfer from bank account A to bank account B of €100 means that the receiver's bank will owe €100 to him.³⁶ 25.34

This perspective frees one from the straitjacket of perceiving money as an object, as conceived in FA Mann's famous treatise.³⁷ The institutional theory of money assumes that money is merely a contractual claim, the value of which is the result of a function, performed by a separate entity independent from the state, the new central banks; whose mobilization or functionality is the result of technological means (for example, plastic cards, internet, cellular telephones) and of a legal framework that ensures its safe use; and whose availability is ensured by central banks in the context of their liquidity management. In defining the instruments and the operation of monetary policy, the central banks have sophisticated methods for assessing the impact of their decisions on the banking sector and, through it, on the level of prices, known as the monetary transmission mechanism. 25.35

is 30% owned by employer and employee organizations, banks, and insurance companies; the Banca d'Italia is almost entirely owned by banks). The 12 Federal Reserve Banks in the USA are owned by their respective supervised credit institutions (only the Federal Reserve Board is a federal agency).

³⁵ The Stability and Growth Pact consists of Council Regulations (EC) Nos 1055/2005 of 27 June 2005 amending Regulation (EC) 1466/1997 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies (OJ L 174 7.7.2005, 1) and 1056/2005 of 27 June 2005 amending Regulation (EC) 1467/1997 speeding up and clarifying the implementation of the excessive deficit procedure (OJ L 174 7.7.2005, 5), and the Resolution of the European Council on the Stability and Growth Pact Amsterdam, 17 June 1997 (OJ C 236, 2.8.1997, 1).

³⁶ See a modern description with references to payment legislation in 'Payment Finality and Discharge in Funds Transfers' by Professor Benjamin Geva, *Chicago-Kent Law Review*, 83/2 (2008).

³⁷ Either as property (coins) or as *choses* in action (banknotes).

The legal framework is instrumental in shaping the monetary transmission mechanism. Financial systems may be more capital market-oriented or more banking-oriented; they may offer a certain kind of financial instrument or alternatives; etc. All this is the result of legislation, on which central banks should have an important say.

25.36 Money being mostly dematerialized and having the legal nature also of claims against financial intermediaries, its conceptual definition cannot focus only on the central bank. It requires a legal and institutional framework that ensures public trust in scriptural money, as a precondition to achieving price stability. Such a legal and institutional framework encompasses:

- prudential rules for credit institutions, ensuring their solvency, as well as a robust supervisory system;
- compulsory establishment of deposit insurance schemes, ensuring deposits and the liquidity of payment intermediaries (up to certain amounts);
- introduction of real-time settlement systems, facilitating intra-day settlement: such systems are based on liquidity pre-deposited with the central bank (that is, reserve requirements) or on intra-day liquidity-supply operations against pre-deposited collateral;
- regulation of payment systems, ensuring finality, sound standards and interoperability, consumer protection, and the liability of intermediaries;
- oversight of payment systems by central banks;
- regulation of e-money and e-payments, protecting users;
- legislation on electronic commerce, ensuring the validity of e-trades, introducing e-signatures, and protecting parties.

25.37 In today's globalized economy, the interoperability of national systems, and also international systems, has become important. In Europe, the TARGET-2 system is an international system based on a single platform owned and managed by the Eurosystem, encompassing the ECB and 21 national central banks; also worth mentioning is the enormous effort towards the interoperability of national retail payments derived from the Single Euro Payments Area (SEPA) project implemented since 2008,³⁸ that has achieved a high degree of standardization in instruments for scriptural payments (for example, cards, credit transfers, and direct debit). On a global scale, it is worth mentioning the Continuous Linked Settlement (CLS), a system to settle foreign exchange payments by providing a payment vs payment mechanism.

F. The Impact of the Financial Crisis on the Institutional Theory of Money

25.38 The financial crisis unfolded since August 2007 throughout the world reinforces the above vision of money as a system of transferable credit claims whose reliability (in terms of stable value and availability) and functionality is dependent on a comprehensive institutional framework that is resilient.

³⁸ See: <<http://www.europeanpaymentscouncil.eu/>>.

Central banks throughout the world have used their existing tools to relieve the liquidity shortages, sometimes in an innovative fashion. Central banks, whilst maintaining their primary objective of price stability, stepped up their function as system liquidity managers, ensuring market liquidity during this period.³⁹ 25.39

Central banks replaced the money market when, following the collapse of Lehman Brothers in September 2008, money markets dried up. They became not only liquidity suppliers but also liquidity intermediaries, by keeping in their books their counterparts' unused liquidity under the standby deposit facility. At the same time, central banks had to adapt their monetary policy instruments to facilitate the flow of liquidity to the real economy, by introducing unconventional measures,⁴⁰ and counteracting the contraction of commercial lending. The fact that financial services are globalized is reflected by the new international operational reach of central banks: in order to serve liquidity needs in foreign currencies, the major central banks entered into a set of swap or repurchase agreements with other central banks, so as to ensure availability of the necessary currency for their counterparts.⁴¹ This is a historical novelty, since hitherto these operations were undertaken only to impact foreign exchange market rates, and not for liquidity management. 25.40

In a situation of normality, central banks focus only on monetary policy and its price stability objective. The financial turmoil 2007 to 2009 has triggered a development for central banks, whereby active system liquidity management has become an important element of money supply, properly not replacing their primary objective of price stability but adding a necessary complement to ensure the desired impact of monetary policy in the real economy. 25.41

If one looks into the split between cash and scriptural money, the crisis period has shown a certain temporary increase in the absolute amounts of issuance and storage of euro banknotes, in particular during the weeks following the collapse of Lehman Brothers where trust in the banking system was shaken. Indeed, there was a significant increase in the quantity of banknotes in circulation both for US dollar banknotes and for euro banknotes, reversing a relative trend towards scriptural money.⁴² 25.42

³⁹ The Eurosystem increased its consolidated balance sheet 90% during the period June 2007 to December 2008, whilst the Federal Reserve System increased it some 160%, and the Bank of Japan some 25% between June 2008 and March 2009—see *ECB Monthly Bulletin* (October 2009). Most of this increase occurred in the last three months of 2008, following the collapse of Lehman Brothers. Interest rates were reduced in all three major central banks during the period, so as to facilitate access to central bank liquidity; for several of these reductions, the three major central banks acted in a coordinated fashion.

⁴⁰ Eg introducing outright asset purchases, special lending facilities, or by extending the scope of eligible collateral so as to ensure liquidity flows to the real economy.

⁴¹ Eg the ECB entered into a swap agreement with the Federal Reserve Bank of New York following which EU-based banks could access US dollar liquidity from the Eurosystem by using EU-located collateral. Similarly, during this period the ECB put in place eight bilateral central bank agreements to facilitate access to euro liquidity outside the euro area.

⁴² In the first half of October 2008, the increase of euro banknotes in circulation compared with the same month in 2007 was €35 to €40 billion, of which €26 billion was hoarded in €500 banknotes, which function as a store of value as a substitution for bank deposits. However, a great portion of that demand came from outside the euro area, particularly in central and eastern Europe. A similar phenomenon occurred with US dollar banknotes, with a significant increase in Latin American holdings of high-denomination banknotes. These trends were reversed in the course of 2009 towards normal levels.

- 25.43** Except in one case there have been no bank runs throughout the crisis.⁴³ The institutional set-up in modern financial economies should have sufficed to avoid any bank run: as explained above, central banks worldwide have adapted their monetary policies to cater for liquidity shortages in the banking system since the first symptoms of the credit squeeze in August 2007; furthermore, as lenders of last resort many central banks have by now provided emergency liquidity to solvent banks when needed;⁴⁴ finally, deposit guarantee schemes in place should have reassured bank depositors that their money is safe.
- 25.44** Throughout the world, governments have taken additional action⁴⁵ in order to ensure the stability of the financial sector, injecting temporary capital into banks, guaranteeing their bond issuances and acquiring their bad assets. Globally, the G-20 has led reform in the supervisory architecture for financial services. The Basel Committee on Banking Supervision has started a review of the Basel II arrangements with the aim of better addressing the liquidity risks of credit institutions; hitherto the main objective was bank solvency, and the crisis has made bank liquidity management the top priority. The list of legislative reforms triggered by the 2007 to 2009 crisis is enormous: from credit ratings to managers' remuneration, from countercyclical accounting to dynamic provisioning, from deposit guarantee schemes to orderly banking resolution, from off-balance-sheet accounting to regulating the shadow banking system, from derivatives trading to securitization, etc.
- 25.45** Remarkably, following the crisis and several authoritative reports on its causes,⁴⁶ all major financial economies are putting in place a new dimension of financial oversight: systemic risk surveillance, also known as macro-prudential supervision. This new function, hitherto exercised by central banks alone as an ancillary function to their monetary stability task, needs now to be enhanced and its methodologies developed, so as to cover all sectors of the financial market and external developments, and all kind of systemic risks, and to take measures aimed at identifying and pre-empting future crises. At the global level, this new function is now vested by the G-20 leaders in a re shaped Financial Stability Board⁴⁷ and in the International Monetary and Financial Committee of the IMF.
- 25.46** Thus, in the overall focus of the institutional reaction to this crisis the general interest that has motivated public interventions on a global and massive scale is precisely the preservation of trust in the financial system as a whole. This, incidentally, has a facet that concerns today's concept of money: the whole set of measures, whilst aimed at the macro-economic objectives of preserving employment and growth, has the effect of protecting the

⁴³ The Northern Rock bank case in the UK in late 2007.

⁴⁴ Northern Rock was a solvent bank, but suffered liquidity mismanagement when the mortgage bond market stopped in August 2007 which impacted its capacity to refinance. Some public communications by the Bank of England at that time did not help public trust in Northern Rock. In some respects, it was an isolated case.

⁴⁵ By way of state guarantees for securities issued by credit institutions; by acquisition programmes for damaged assets; or by re-capitalization schemes.

⁴⁶ The Larosière Report (<http://ec.europa.eu/commission_barroso/president/pdf/statement_20090225_en.pdf>); the FSA-Turner Review (<http://www.fsa.gov.uk/pubs/other/turner_review.pdf>); the House of Lords Report (<<http://www.publications.parliament.uk/pa/ld200809/ldselect/ldecom/106/10604.htm>>), the House of Commons Report (<<http://www.publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/767/767.pdf>>).

⁴⁷ See: <<http://www.financialstabilityboard.org/>>.

reliance on and the continued use of scriptural money, for which a trustworthy banking system's functioning is vital. One of the consequences, if not the objectives, of governments' and central banks' massive reactions to the crisis is to protect the deposits in banks, that is, scriptural money, as a fundamental pre-requisite to a well-functioning real economy where adequate liquidity is of essence. That is clear, for instance, in the upgrade of the deposit guarantee schemes in Europe; but also in all efforts being made by central banks and by governments regarding the liquidity of the banking system. The financial crisis 2007 to 2009 has proven the institutional theory of money: money is no more than a credit claim that creditors are ready to accept because it is generally transferable as a means of exchange, or may be in the bank without risks as a store of value, thanks to a legal and regulatory framework organizing: (1) its creation in a manner that preserves over the course of time its purchasing power; (2) its availability (even in times of crisis); and (3) its functionality for daily use by all economic agents.

G. Conclusions

It is submitted that neither the state theory of money as defined by German doctrine and taken up by Frederick A Mann in his reference book *Legal aspect of money*, nor the societal theory of money as defined by Ascarelli, are adapted to today's world, where money is a dematerialized concept—basically just a name—without intrinsic or extrinsic value, having the legal nature of a contractual claim against either the central bank or against a credit institution, where the institutional and normative framework is the conceptual centre of gravity. It is because of this institutional and legal framework that economic agents give credibility to a medium of exchange that has no pre-determined established value, which is no more than a concept, where its physical representation, banknotes and coins, are not redeemable. Money is no more than legal claims, credit claims, against either central or commercial banks, but within a framework that ensures stability of purchasing power, availability, and functionality. As money consists merely of claims, it requires a sound set-up on which society can rely, using such claims to settle with confidence a myriad of monetary debts every day, with the assurance that the system is legally sound, and is managed by institutions that are free from variable political interferences and only aim at price stability (that is, constant purchasing power) within a stable financial system. 25.47

In support of the old state theory of money, it has been argued that it is for the state to organize the monetary system and to adopt legislation, both for central banks and for the banking and payment systems,⁴⁸ as well as civil and monetary law. However, the original state theory of money is based on the sovereign's power to establish the value of money, in terms of gold, silver, copper, US dollars, pounds sterling, or other. The sovereign no longer has this power. States are deprived of the capacity to determine the value of money, of the capacity to influence the central banks in any direction, and even of the hitherto long-established right to be financed by the central bank. Central banks are state bodies, but they 25.48

⁴⁸ Rosa M LASTITA, *Legal Foundations of International Monetary Stability* (Oxford: Oxford University Press, 2006) 21.

could as well be private or supranational: they just need to be independent, equipped with the necessary tools, have a clear mandate to preserve the purchasing power of money, and be able to perform within a framework that procures financial stability.

- 25.49** This institutional theory of money recognizes the parameters of today's economies: money is just a non-redeemable claim against a central bank or a credit institution, where scriptural money can prevail over cash because the institutional set-up facilitates the availability, functionality, and reliability of this dematerialized asset; where there is neither an intrinsic nor extrinsic pre-set value for that asset, but where such value depends on the monetary policy of an independent and capable central bank. It is a world without objective anchors for money, other than the institutional and normative framework.