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towards the break-up of money *when reality – driven by information technology – overtakes Simmel's vision*

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*Georg Simmel reached the conclusion that evolution drives money towards an ever-higher level of functionality while, at the same time, it reduces its importance as a substance. This article confronts Simmel's one hundred-year-old hypothesis with the changes money has undergone since the publication of his book, **The Philosophy of Money**, but especially since the 1970s. We begin by presenting the main conclusions of Simmel's inquiry into the essence of money. We focus on his findings concerning the unstable relationship between the substance and functions of money and on the notion of money as a social institution. The second part of the article relates Simmel's analysis to various aspects of contemporary thinking on money, and presents the 'double anchor' hypothesis on the monetary order. Then, this hypothesis is used to analyse how technology-driven processes are causing specific monetary functions to become increasingly autonomous. What this implies, in turn, is the de facto break-up of money. For the time being, this situation has not actually arisen, but the stage-by-stage break-up of money is well under way, at various speeds, and taking advantage of any available technical opportunities, especially in the field of information technology. The expected total break-up of money poses compelling problems that call for new conceptual, technical and institutional solutions.*

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This is a revised version of a paper presented at the 'Georg Simmel Konferenz', Berlin 8–10 October 1999. It will appear in the conference proceedings: Jürgen Backhaus and Hans-Joachim Stadermann (eds), **Georg Simmel's Philosophy of Money: A Centenary Appraisal**, Metropolis Verlag, Marburg, 2000.

In the introduction to *The Philosophy of Money*, Georg Simmel spelled out the goal of the first part of his book: 'to make the essence of money intelligible from conditions and connections of life in general...'.¹ By focusing his inquiry on the essence of money, Simmel explained his most important premise, namely that such an essence exists, by definition unique and invariable. In consequence, he put all his effort into tracking the essence of money, beyond all the obscuring structures and rules that have governed monetary relations and dealings at various times in human history.

From the outset Simmel made a distinction between the essence of money and the material that represents it in substantial form. He justified this distinction by arguing that:

*... the particular qualities that the material adds to money lead to its being subsumed under those goods to which, as money, it stands in contrast ... so far as its pure essence is concerned, it must be interpreted simply as money, quite apart from all secondary qualities that connect it with the contrasting party. In this sense, money has been defined as 'abstract value'. ... If the economic value of objects is constituted by their mutual relationship of exchangeability, then money is the autonomous expression of this relationship.*²

Simmel's first important conclusion, that the essence of money is independent of its substance and the form it may take in specific circumstances, is presented at this point.

The second chapter of the first part of *The Philosophy of Money*, devoted to 'The value of money as a substance', built on the previous conclusion and identified the lines along which money evolves. Beyond the various forms that money has taken at different times in history, Simmel saw the driving logic of its evolution that has made the essence of money ever more visible. The second important conclusion is thus that function, not substance, is the essence of money.

In one of the most illuminating sections of this book, Simmel untangled the conceptually complex relationship between substance and function. The core of the section concerned deserves to be quoted in full:

*Money has value not on the account of what it is, but on the account of the ends that it serves; and although an original intrinsic value of money made possible its later functions, it acquires its value subsequently from these functions, and gains at a higher level what it had given up at an earlier stage. It is true that the functional value of money still needs to be represented. The decisive point, however, is that this value no longer arises from what represents it; on the contrary, the latter is quite secondary, and its nature has no importance except on technical grounds which have nothing to do with the sense of value.*³

Thus Simmel acknowledged the importance of substance, but as a technical, not essential, issue. There was no doubt in Simmel's mind that, one day in the future, the technical constraints operating at the end of the nineteenth century would be eased, and that money would be released from its material or substantial envelope. Its true essence would then become apparent. This is the third important conclusion.

'... Money tends towards a point at which, as pure symbol, it is completely absorbed by its exchange and measuring functions'.⁴ Simmel acknowledged, however, that this point would not be reached immediately because of technical constraints. Indeed, he wrote: 'It is not technically feasible to accomplish what is conceptually correct, namely to transform the money function into a pure token money, and to detach it completely from every substantial value that limits the quantity of money, even though the actual development of money suggests that this will be the final outcome'.⁵ Consequently, the fourth conclusion Simmel reached in his search for the essence of money was that, for the time being, a clash between the

1 Georg Simmel, *The Philosophy of Money*, Routledge & Kegan, London, 1978 (translation of the second edition of the original, Berlin, 1907, by Tom Bittmore and David Frisby), cf p 54.

2 *Ibid*, pp 119–120.

3 *Ibid*, pp 201–203.

4 *Ibid*, pp 201–203.

5 *Ibid*, p 165.

acquired level of knowledge of money and the real state of affairs cannot be avoided.

From the very outset, Simmel reached his conclusions about the essence of money because he set out to look at money not as a 'thing' but as a phenomenon. This led him to take into account the social environment of money and to state that '... money is an entirely sociological phenomenon, a form of human interaction. Its character stands out all the more clearly the more concentrated, dependable and agreeable social relations are.'⁶

Simmel identified one important element in the process leading to the emergence of money as a social institution, namely the moment at which a third party is – implicitly – introduced into any exchange relationship. 'When barter is replaced by money transactions a third factor is introduced between the two parties: the community as a whole, which provides real value corresponding to money. The pivotal point in the interaction of the two parties recedes from the direct line of contact between them, and moves to the relationship which each of them, through his interest in money, has with the economic community that accepts the money, and demonstrates this fact by having money minted by its highest representative. This is the core of truth in the theory that money is only a claim upon society.'⁷ By introducing the third party into all exchange relationships, money as a substance becomes less and less important, because the public dimension takes over from the private one. In consequence, monetary functions are freed from their substantial envelope in societies with a strong and stable institutional order. This may be seen as Simmel's fifth conclusion of importance to the present argument.

This article seeks to confront Simmel's view on the evolution of money with the changes that took place in the monetary setting throughout the twentieth century. In order to prepare the ground for the next part of the article, it is worth spelling out three issues that are of the utmost importance for the rest of our reasoning but which Simmel leaves unresolved.

The first issue concerns the precise meaning of monetary function or, as Simmel puts it, 'the function of money'. Is there only one such function, as Simmel's use of the singular would suggest, or are there several? When he speaks of the 'measuring and exchange function', is he referring to the sole monetary function?

The second issue concerns the mutual relationship between monetary functions. Is there a hierarchy among monetary functions? Do some of them belong to the core, whereas others are clearly peripheral? Are different functions autonomous from one another, or are they interconnected? When contemporary textbooks define money as 'anything' that performs the standard-of-value, means-of-exchange and store-of-wealth functions, they underline the fact that these functions are interdependent because they are embedded in a single 'thing'. But the prospect opened up by Simmel's 'functionalization' of money allows for alternative views of the mutual relationship of monetary functions.

Finally, the third issue left open by *The Philosophy of Money* is the question of the intricate social and technical dynamics that may lead to total functionalization of money, and the parallel withering-away of its substance. Simmel touched upon this issue when he spoke of money as a social institution, but he stopped short of explaining this interdependence in more general terms.

In the next part of the article, we present a general and dynamic view of the relationship between social institutions and monetary function, drawing on Simmel's unfinished work.

Between substance and social institutions

The 'double anchor' hypothesis

When discussing the relationship between money and social institutions, Simmel made an extremely important point: '(the) significance of metal in monetary affairs recedes more and more into the background, as compared with safeguarding the functional value of money through community institutions. For metal is originally always private property, and public interests and public forces can never gain absolute control over it. One might say that money becomes increasingly a public institution in the strict sense of the word...'⁸. Simmel thus suggested that the range of possible ways in which monetary functions might be performed is limited by two extreme situations.

At one extreme of the spectrum is the 'traditional' situation in which money is a commodity (a precious metal) that is transferred physically in every transaction. In that case, only substance matters. Monetary functions are limited to and accomplished by the sole use of substance. Money is a 'thing'. Exchanges are strictly limited to the parties involved, without interference by any social institution. At the other extreme of the spectrum, substance does not matter, or even exist. Consequently, social institutions are – explicitly or implicitly – present in any transaction or activity involving any of the monetary functions, and money as a physical reality has lost all meaning. In this extreme situation, various monetary functions may be autonomous from one another, ie they may be performed by specific institutional settings.

In between these pure, and ideal – in the Weberian sense – situations is real life. By its very nature, any real monetary order draws on these two extreme situations, but in differing proportions. In other words, in any monetary order, two anchors maintain the function of money: substance and social institutions. This general model can be referred to as the 'double anchor hypothesis'.

To make things quite clear, the term 'monetary order' is used here to mean any type of monetary arrangement in which monetary functions are performed with or without the use of money as a material object.

Analysis – especially economic analysis – has traditionally tended to focus on the most visible of the two anchors, namely the 'thing', the substance of money, while the hidden dimension, ie the social institutions that surround it, in most cases go unnoticed. However, in each monetary order, the two pillars combine so as to produce a comprehensive environment, in line with the needs and technological capabilities of a given social order. When institutions are weak,⁹ money as an object must be strong and heavy, ie self-sufficient and autonomous. When the set of rules that govern the use of money is strong and backed up by enforcement procedures, money as an object can be weak, ie devoid of substance. In this sense, the two anchors are both complements and substitutes for one another.

Simmel touched on these issues, but stopped short of spelling out the 'double anchor' hypothesis. However, he did suggest, *passim*, that the two anchors may – to a certain extent – be substitutes. He said, for instance, 'Only in a stable and closely organised society... is it possible for such a delicate and easily destroyed material as paper to become the representative of the highest money value'.¹⁰

In the following sections, the double anchor hypothesis will be illustrated by examining three dimensions without which no monetary order can survive. Different ways of providing each of the dimensions will be sketched so as to give to the double

⁸ *Ibid*, p 184.

⁹ The term 'institution' is used here in the double sense D. North gives to it. According to North, institutions are both formal and informal, 'the framework within which the human interaction takes place' (D. North, *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, Cambridge, 1990, p 4).

¹⁰ Simmel, *op cit*, Ref 1, p 172.

anchor hypothesis some depth. The three elements relate to different dimensions of trust, which is the cement that holds any monetary order together. However, when it comes to anonymous relationships with alternating partners, trust must be strengthened by a set of implicit or explicit guarantees, or at least safeguards. The specific nature of any monetary order is strictly related to the way in which it provides these guarantees and protections. Three of these would appear to be fundamental:

- protection against non-redemption;
- protection against counterfeiting; and
- protection against loss of value.

Protection against non-redemption: commitment

The differing views mentioned below have one common element. They stress that, to function properly, any monetary order requires a kind of consensus and reciprocal commitment by the potential exchange partners, whereby they agree to temporarily hold unbalanced positions in relation to other partners. When willingness to hold such positions disappears, monetary order collapses.

Today, the discussion about the sources of social commitment to money is especially lively in Europe, because of the ongoing process of the introduction of the euro. This is particularly the case in France. According to Aglietta and Orléans, any monetary order has deeper roots, a shared sense of belonging. From this point of view, money – as a thing or substance – must above all be seen as an important element of the social link which is essential to the development of social identity. Consequently, as far as the proponents of this view are concerned, monetary functions appear to be secondary, not essential. Aglietta and Orléans write:

... the constraining aspect of money, its function as an agent of social belonging, must be based on a more general hypothesis than that of being a means of exchange. This hypothesis is that money proceeds from debt in its relationship to sovereignty and hence from a hierarchy of value.¹¹

In other words, as far as these authors are concerned, the commitment to the use of money, which is a natural prerequisite in order for any monetary order to survive, is in line with a deeper, shared feeling of social belonging. The commitment of the partners in an exchange to the use of money is the horizontal expression of the social identity that proceeds from a vertical link to a totality, be it God or society seen as a whole. Consequently, a 'virtuous circle' operates whereby the commitment to a monetary order – expressed by its use – and the social link and social identity reinforce each other.

Another way of looking at the issue of commitment to a monetary order raises more technical issues. It links the development of any monetary order to the extension of numeracy, and sees monetization as a process whereby calculation becomes a structural component of social organization.¹² If submission to a common rule is what makes an organization then, according to Bichot, the organization can be called monetary if it is based on the use of arithmetic. Reference to a measurement – and widespread use of measurement – is necessary if arithmetical techniques are to be applied to a spectrum of goods and services. But more than this is needed in order for such a standard to acquire a social dimension. This only happens when the intellectual commutativity of symbols achieved by calculation reflects exchange potentialities that are materialized – in real life – by a broad network of operating markets. Only when the two sides – the arithmetical image and the real markets – are interconnected by exchange transactions and made interdependent by accounting rules does the standard come into being 'socially'.

¹¹ M. Aglietta and A. Orléans, *La monnaie souveraine*, Odile Jacob, Paris, 1998, p 21.

¹² Jacques Bichot, *Huit siècles de monétarisation: de la circulation des dettes au nombre organisateur*, Economica, Paris, 1984, p 224; see also Jean-François Bougeard, *La comptabilité une clé pour l'économie*, Seuil, Paris, 1991.

The issue of the ultimate source of commitment to a monetary order may never be finally settled. The important point for the present argument is that such a commitment is required whatever its ultimate source may be.

Recent history provides an example in which such a 'virtuous circle' did not operate properly, ultimately causing the monetary order to collapse. In the so-called 'planned economies', the monetary order was established by constraint so as to prevent many of the traditional functions of money from emerging. Money was essentially deprived of one of its most fundamental characteristics, namely fungibility. In practice, because of widespread shortages, money was a rationing coupon or a voucher for uncertain supplies rather than an entitlement to available products. In consequence, wherever possible, economic agents – not only individuals but also enterprises – channelled all the permitted goods and services into barter transactions or transactions settled in foreign currency.¹³ After 1989, however, confidence in national monetary orders reappeared fairly rapidly, at least in Poland, Hungary and the Czech Republic. It seems that the virtuous circle identified by Aglietta and Orléans has been successfully recreated.

In practical terms, various monetary orders in history have used different instruments and methods to protect people and businesses against non-redemption. The legitimate fear of anyone who accepts a particular kind of monetary payment in exchange for a service or a good is that they may not be able to redeem it for a desired good or service later on. In that case, the proceeds of the monetary payment would be totally worthless. In the days of commodity money, when the substance of money was 'heavy', the object was, *de facto* at least, a partial guarantee against such a deadlock. Indeed, potential partners who are not willing to accept money at its face value may agree to accept it for its material content. At the other end of the spectrum of possible situations, protection against non-redemption can be extended to the bearer and user of monetary symbols by the legal enforcement of a given currency as legal tender. If the state fails to enforce its own regulations, the outstanding balances will at least be used to pay taxes.

In the case of legal tender, it is not the substance of money but the social institution of the state that is the guarantor against non-redemption. This illustrates the meaning of the 'double anchor' hypothesis. One of the fundamental characteristics of any monetary order can be provided either by the institutional setting, as in the case of legal tender or, directly, by its otherwise valuable substance. The main difference between these two extreme solutions when it comes to the risk of non-redemption is the question of exclusivity.

The social institution of legal tender usually applies within clear territorial boundaries. Within these boundaries, the national currency is in a monopoly situation. The use of substantial money does not require such a territorial delimitation. In other words, depending on the degree to which a monetary order uses each of the two possible anchors, its relationship to space and to competing monetary orders that may co-exist with it will differ. This issue will be of particular relevance in the third part of this article.

Protection against counterfeiting

The second dimension of the guarantee that may enhance the development of trust within a monetary order is protection against counterfeiting.

In the case of traditional monetary orders based on metal, when the metal is true and only the minting is counterfeit, the loss to a person who accepts the counterfeit coin amounts to only a fraction of its face value. In the case of counterfeited paper

¹³ Paul H. Dembinski, *Quantity versus Allocation of Money: Monetary Problems of Centrally Planned Economies Reconsidered*, in *Kyklos*, 1988, 281–300; and *The Logic of the Planned Economy*, Oxford University Press, Oxford, 1991, pp 118–49.

money or electronic transfer, however, the loss amounts to the whole sum. In both cases, money may be seen as a transponder for information that arises from the accounting procedures applied to every transaction. The same information may travel through various vectors: physical transfer of cash is one, electronic transfer of bits of information is another. In both cases information has been released as a consequence of a human decision (payment or transaction) and will have certain effects that are almost mechanical.¹⁴ In a world of interconnected accounts, the procedures that govern an electronic wire transfer debit the payer's account and credit the payee's account by the same amount. The payee will then be able to use his account to pay in turn. The same would have been true if the payee had been paid in cash. This is the main point made by Bougeard, who writes:

*... metallic and fiduciary money has never been anything other than a means of compensating for the absence of rigorous accounting and the slow transmission of information – ie available cash. With the spread of accounting procedures and the advent of rapid long-distance communications, we are now reaching the stage where traditional money will disappear and accounting and money will merge.*¹⁵

It is only because households generally do not keep proper accounts that money as an autonomous object was needed – but its only role is to transfer information which is processed according to strict and stable rules. When accounts are interconnected, payment information flows and instantly updates the partners' accounts, showing any unbalanced position – ie the amount of outstanding money.¹⁶

Close control of the technical processes governing the production of paper money and tight supervision of the money-creation procedures used by banks may reduce to insignificant levels the likelihood of counterfeiting, ie creation of money without a valid counterpart.

Here again, the double anchor hypothesis helps us to understand the evidence from various monetary orders.

Protection against loss of value

The third dimension of the guarantee that has to be built into any monetary setting in order to make it an attractive economic vehicle concerns the eventual loss of value of the unit used. Simmel was fully aware of the issue but looks at it mainly from the perspective of substance-based money. He said, 'the function of exchange and reckoning obviously depend upon a limitation of quantity of money, upon its scarcity as the expression goes'.¹⁷ The question, then, is how to ensure the proper level of scarcity of money. Simmel saw only one way to achieve this: by choosing an appropriate substance for money, ie a substance whose supply can be effectively controlled. But, he adds: '...precious metal is not as such the proper material for money, but only in so far as it sets a necessary limit to the supply of money'.¹⁸ Simmel did not believe that there is any other – technical – way to protect paper money from excessive supply than by strictly tying it to metal. In other words, Simmel saw the control of quantity as the only way to protect the value of money, whose stability is an essential condition for maintaining the necessary support for the monetary order in question. But in his reasoning, the need for quantity control is more a technical than a philosophical consideration.

The experience accumulated since then suggests that institutional rules as well as metal standards have been used to protect the value of money from erosion. In particular, in contemporary monetary orders, two different sets of rules govern changes in the quantity of money:

- the independence of the central banks, which in many countries is enshrined in the constitution; and

¹⁴ see Olivella, Marti.

¹⁵ *Ibid*, p 124.

¹⁶ Bougeard, *op cit*, Ref 12, p 100 & ff.

¹⁷ Simmel, *op cit*, p 159.

¹⁸ *Ibid*, p 160.

- the arsenal of monetary policy instruments at the disposal of central banks, which they use to influence the behaviour of commercial banks in their money-creating activities.

Financial and monetary history has amply shown that none of these protective devices is perfect, that none of them prevents the value of money from being eroded. On the one hand, governments are tempted to override any institutional rule in an emergency; on the other, it is not clear that the sole purpose of monetary policy is to defend monetary units against erosion, when other objectives such as full employment come into conflict with it. Nevertheless, during the 1990s monetary policy has proved an effective instrument for maintaining the value of money.

Podolski¹⁹ and others after him have convincingly shown that one of the main problems of putting 'money quantity management' into practice in modern times is the difficulty in defining money. In fact, since the closing of the gold window in 1971, the stock of money has not had any unambiguously identified counterpart, such as metal or any other reserve currency. Recent experiences in monetary policy show, however, that despite the uncertain definition of the stock of money it is possible to keep inflation in check, ie to preserve the value of money for consumers at least.

According to the double anchor hypothesis, substance and social institutions are the two alternative but complementary ways to give a monetary order the roots it needs. The three dimensions analysed above stress the validity of such a broad hypothesis: in all three cases – protection against non-redemption, protection against counterfeit, and protection against loss of value – either substance or an appropriate institutional environment can be effective. In specific historical circumstances, the choice is more limited than it may seem from the theoretical discussion, and depends on how the two components of monetary order – ie substance and institutional rules – are interrelated but also on the level of technical and institutional sophistication.

Towards the end of money?

What does the 'break-up of money' mean?

According to the double anchor hypothesis, when money as a substance withers away, new institutional and technical arrangements fill the vacuum. There are two factors that drive this substitution process:

- the technical capabilities that alter the transaction costs associated with the use of the various payment instruments, and
- the level of opportunity costs associated with each of them.

Consequently, dynamic technical changes are opening up new perspectives as to how monetary functions can be performed, and this in turn is affecting the workings of established monetary orders. Simmel predicted the evolution of monetary order towards ever greater functionality, but he did not take full account of the consequences of this evolution. From the point of view of the late 1990s, the break-up of money does not seem impossible. A world in which different monetary functions will be carried out by an array of specialized, autonomous, and often competing instruments is easy to imagine. The drive towards ever greater specialization of monetary instruments and competition between them is the premise for the 'break-up of money' referred to in the title. A world in which technological push will cause money as a substance – paper or coin – to disappear is just around the corner. In the emerging monetary order, the role of regulations and social institutions will, according to the double anchor hypothesis, be greatly increased.

The title of this paper, 'The break-up of money', refers to the widening spectrum of new, and until recently unsuspected, tools and assets which perform a monetary function to a high – but varying – degree. Three sets of underlying causes can be identified:

- new technological horizons,
- a political environment which favours international liberalization and internal deregulation, and
- last, but not least, an ever greater tendency for decisions by societies and individuals to be subordinated to the outcome of numerical (ie money-based) maximization.

Consequently, the emergence of a new monetary order based on spare monetary functions being performed by a set of specialized, although not necessarily fully coherent, institutional arrangements is being driven by three processes: the emergence of new exchange networks, the emergence of new types of transactions, and new ways of settling old transactions.

Financial assets: modern 'stores of wealth'

The development of financial activities is – to an economist – the most outstanding feature of the past twenty-five years. The declaration of dollar non-convertibility and the first oil shock, in the early 1970s, paved the way for this development, and breakthroughs in telecommunication technology speeded up the changes. Consequently, not only financial transactions, but also financial assets expanded at hitherto unimagined rates. The development of the financial system was driven by the multiplication of financial assets, and by the search for ever greater efficiency of the related transactions.

Practical and theoretical understanding of financial processes progressed in parallel, leading to an unprecedented development in the theory of finance. Today, the 'theory of finance' is probably the most elegant, coherent and attractive discipline in the world of economics. It has developed in many different directions. However, most of these developments share the basic assumption that finance is a self-contained world, with its own markets, trading rules, institutions and types of behaviour. This (often implicit) assumption of 'self-containment' has led financial research to disregard issues related to interaction and interdependence between the financial transactions, monetary economy and the 'real' economy. Even the so-called 'functional approach' of the financial system shares this assumption.²⁰

The *de facto* autonomy of the financial system and its specialization in dealing with financial wealth and risks have gradually deprived money balances of their classical function as a 'store of wealth'. Since the invention of the Eurodollar in the 1960s, financial innovation has supplied operators with an increasing variety of instruments (assets) many of which have by now achieved a high degree of liquidity. Most of the financial assets, and related transactions, are used as 'stores of wealth' and their active management is aimed – at least – at protecting their ultimate value from erosion. The development of finance is contributing to the 'break-up of money' in the sense that it is driving the store of wealth function of money to the fringes of the emerging monetary order or even beyond it. Because the divide between monetary and financial issues is not (yet?) complete, the specialization of finance can also be seen as the amalgamation of money – in the traditional sense – and financial assets.²¹

The Emergence of New Exchange Networks

Two kinds of development are challenging the monetary order based on the monopoly which official currency used to have on all exchange transactions

20 Robert C. Merton and Zvi Bodie, 'A conceptual framework for analyzing the financial environment', in B. Dwight Crane *et al*, *The Global Financial System: A Functional Perspective*, Harvard Business School Press, Boston, 1995, p 4 ff.

21 This is one of the main concerns of the review *Finance & Bien Commun (Finance & the Common Good)*, editorial statement, spring 1998.

involving payment. On the one hand, networks of global companies are attempting to strengthen their customer relations by introducing 'shadow' transactions in the form of loyalty schemes which result in the *de facto* creation of specific means of payment in limited amounts. On the other hand, the traditional monetary order is being challenged by the emergence of local payment and exchange networks. These initiatives apply the same exchange logic as in the case of corporate fidelity schemes but on a local scale and in order to enhance social cohesion.

Global loyalty schemes: Airline reward schemes are among the best-known corporate payment networks, even if they are still at an early stage of their potential development. Their starting point is similar to any other loyalty scheme: whenever a passenger flies, they are credited with ad hoc units called 'air miles'. The accumulated balances of air miles can be used to buy an air ticket or upgrade an economy-class ticket to business class. In order to make their schemes more attractive, airlines have contracted alliances with other partners, such as banks, car rental companies, hotels, etc. Consequently, air miles can be earned and spent on any good or service produced within the network of allied companies. Air miles are gradually becoming vouchers, means of payment with an ever-extending range, and even 'currencies' in which companies' liabilities towards customers are labelled. These and other developments are fundamentally transforming the nature of what initially was a classic fidelity scheme into a full-fledged monetary order. Situations in which networks of global companies will start to pay a proportion of their employees' salaries in 'corporate currency' are easy to imagine.

Airline companies and allied networks of global corporations are using the solid reputation of their brands to support new 'currencies' and payment systems. Consequently, the attractiveness of these schemes is undoubtedly increased by the power of the brands companies use to compete with official currencies.

The development of private currencies would not have been possible without the development of information and communication technology (ICT). Data warehousing techniques have allowed the storage of the unprecedented amounts of information needed to trace to an individual account the units collected and spent within a multi-company global network. These data are also widely exploited by data mining techniques and then used by marketing departments or by the same global corporations to fine-tune clients' profiles and to tailor offers and products accordingly.

The development of these kinds of private currencies will challenge the legal tender status of official currency, which is still enforced by central banks. However, given the present drive towards ever greater liberalization, and the transnational status of global companies, it seems rather unlikely that central banks will intervene to limit the development of such private payment systems. These developments are paving the way for a further break-up of the traditional monetary order, with specific functions being taken over by dedicated currencies and appropriate payment networks. This development is reinforced by the potential dematerialization of currencies – or, as Simmel would have called it, the withering-away of substance.

The emergence of hi-tech private payment schemes sheds new light on the future evolution of the monetary order and raises new questions. The most important of these questions concerns the conditions under which balances in one private currency can be redeemed in other currencies. For the time being, the question has not been addressed because such schemes are still rather marginal.

Local Exchange Trading Systems (LETS) are being set up all around the world by people who are dissatisfied with the current workings of the monetary order. LETS represent an attempt to lay the foundations for alternative monetary orders that can foster and strengthen social cohesion. Despite the wide variety of technical solutions used by the various LETS, they all pursue the same goal, namely to provide new opportunities for exchange transactions which in turn can increase integration and limit social exclusion. In other words, LETS are in keeping with Simmel's views on the importance of money in creating a group of interdependent people. Simmel pointed

out that the action of exchanging is per se a socialization process: 'Exchange is a form of socialisation. It is one of those relations through which a number of individuals become a social group, and 'society' is identical with the sum total of these relations.'²²

Given the great diversity of LETS, it is worth looking at three specific cases before drawing more general conclusions about how they operate.

'Credit where credit is due', so we shall begin with the Wörgl experience, based on Silvio Gesell's writings. In 1932, a time of very high inflation and unemployment, the mayor of the small Austrian town of Wörgl decided to stimulate local economic activity by issuing a special currency that was designed to decline in nominal value at a steady rate of 1% a month. The new currency was backed by a corresponding deposit in a local savings bank. Two years later, Wörgl was the first town in Austria to have recovered from unemployment by encouraging public works. The experience caught the attention of many economists, and it was discovered that money with a negative interest rate circulated 40 times faster than national currency. The WIR is another example of a LETS-type monetary arrangement. The WIR (which means 'we' in German) bank issues special voucher called a WIR, the value of which is linked to the Swiss franc. The vouchers can be used mainly in the building industry for partial payment of invoices. This is particularly important in the building industry, where usually important amounts of cash are immobilized during the investment cycle. Within the industry, WIR vouchers act almost like cash, except that the interest rate they bear is lower. This lower rate can be achieved because of the mutual nature of the bank and because the bank focuses on one industry which it knows very well and can therefore assess the risks more efficiently. Issuing WIRs is a very neat way of stimulating the economy, since they are aimed at a very specific target. Although there is no particular social cohesion dimension between the members of WIR, they do share responsibility within the same industry.

In Argentina, LETS-type systems are booming among people who are on the fringes of official economic activity.²³ While such systems remain marginal and semi-official in Western Europe and the USA, Argentina's Minister for Social Affairs has been promoting what are known as Redes Globales de Trueque (REDs), which contribute to social welfare at very low cost by encouraging people to engage (or re-engage) in economic activity or behaviour. REDs were first set up in order to mobilize resources that were left unused in official economic activity. To achieve this, a specific means of payment was issued by a local association. To earn it, people – who were among the poorest of the population – began to sell produce from their gardens in return for various domestic services. Gradually, garden produce has been replaced by more 'sophisticated' products like jam, and exchanges carried out within the REDs system now extend to services such as personal care and even education. At the same time, REDs are steadily becoming less local in nature as they expand to form a network of local arrangements.

In all three cases, LETS are providing means of payment to promote economic transactions and exchanges that would not take place within the official monetary order. LETS make it possible to account for and settle transactions, and they use exchange as a step towards renewing the 'social' link between debtors and creditors, buyers and sellers.

LETS are not designed to replicate the traditional monetary order, but rather to emphasize the functions of money which may have the greatest social impact. Initiators of LETS generally say that means of payment should circulate as fast as possible and should never remain in the same hands for any length of time. Hoarding of payment units is therefore often penalized in LETS, for example by means of a negative interest rate.

22 Simmel, *op cit*, Ref 1, p 175.

23 Primavera Heloisa, 'L'Innovation monétaire, ça existe!', in *Finance & Bien Commun (Finance & the Common Good)*, Spring 1999.

Another typical feature of many LETS is that the products and services exchanged are domestically produced. This means that the costs incurred in such production are either nil or are not accounted for because they are incurred, for instance, in the official economy. Such production does not require either bookkeeping or any specific mark-up on costs. Consequently, members of LETS are encouraged to produce, but without a proper awareness of the costs incurred. As long as this remains a feature of LETS, their potential for development will be low. On the other hand, if LETS balances become redeemable in any other means of payment with a wider reach, LETS can develop into a specific feature of the emerging monetary order.

LETS currencies – like the global corporate schemes discussed earlier – are viable because they are rooted in a strong institutional setting, namely local social cohesion. Unlike corporate currencies, LETS do not depend – at least for the time being – on developments in information technology.

In conclusion, both LETS and corporate networks bear out the double anchor hypothesis: currencies can manage without substance provided they are backed up by a strong social or institutional framework.

New payment systems

Simmel has accurately noted that the implicit presence of a third party in any exchange transaction was a prerequisite for the dematerialization of money. Besides corporate networks and LETS, which revolve around specific currencies, we are today also witnessing the emergence of new types of third parties that are called upon to help conclude transactions labelled in official currencies. Credit cards are a good example of this type of development. When we pay by credit card in some remote country, the goods are surrendered to us not because we have dollars or euros, but because we have signed a promise to pay on behalf of a third party (usually a private company) that the seller of the goods trusts. By virtue of that trust, the seller assumes an additional counterpart risk because he is effectively granting credit to the credit card company. He also pays a fee for the services of the credit card company, which will pay him even if we do not. In the final analysis, we receive the goods because the third party is creditworthy in the shopkeeper's eyes. The same would have happened if we had paid with 'Visa dollars' which the shopkeeper could ultimately redeem in real dollars from the issuing company.

There are three reasons why we have credit cards, and why it is accepted even in the remotest places:

- information technology which makes it possible to check on the spot if the card is counterfeit;
- the reputation of the card-issuing company and its ability to persuade shopkeepers to join its network; and
- the legal system which governs our contract with the credit card company and gives the company sufficient instruments to enforce the contract if necessary.

All three factors are essential. They are the pillars that support every payment system. The only difference from official money is that debts issued in 'Visa dollars' can be redeemed in real dollars if needed.

Open questions – tentative conclusions

If the process of the 'break-up of money' is really taking place, and if – as suggested here – it is mainly driven by the developments in information and communication technology, then its multiple consequences have to be carefully assessed.

The first set of consequences is conceptual. If money as a substance withers away, the tools which we have developed in order to think about money have to be adjusted. To what extent will the very concept of money remain useful in the new

environment? J. Bichot, a French historian and mathematician, prefers to speak of *actes monétaires* ('monetary acts'). At the end of his study he wrote :

*...we shall use the term 'money' to describe assets on which monetary acts are most easily performed, assets whose main purpose is to enable monetary acts to be carried out... The term 'money' applies to assets that perform a monetary function to a high degree.*²⁴

Bichot's conclusion was that many different financial instruments – assets – can be used to carry out such acts. Bichot even indicated a possible development of these assets when he identified an important positive feedback loop: as the use of monetary intermediation increases, the demand for financial innovation grows, which in turns helps to extend the use of monetary intermediation. According to Bichot, the general trend drives towards an ever greater monetarization of human activities because an ever wider spectrum of assets and institutional arrangements can effectively perform one or more of a monetary function.²⁵

The second set of consequences concerns the issues which the double anchor hypothesis has helped to identify. Money as a substance has been allowed to wither away because, at the same time, the institutional and regulatory setting in which accounting information circulates has been greatly strengthened during the past thirty years. This process has been driven not only by technology but also by the opening-up of national frontiers. Consequently, the very notion of a territorial payment community has been undermined by two complementary factors:

- the widespread use of more than one currency in day-to-day business practice, and,
- the emergence of private exchange markets, networks and procedures such as those described above.

The payment system, and the monetary order in general, have been able to evolve towards more complex – and probably more efficient – solutions because financial institutions have been there to establish connections and bridges between these new payment sub-systems. However, this has led to a massive increase in the transaction costs associated with most payment operations. Transaction costs, and the ability of financial institutions to pass them on to the customer, is one of the main drivers of the development of payment sub-systems. This is leading to the emergence of a hierarchy of interlinked and thus interdependent payment sub-systems, none of which is fully self-sufficient. This complex payment system is gradually taking over the means-of-exchange function which cash was able to fulfil immediately and without additional costs. Such a development towards the privatization of payment flow management challenges the rather classical view of money as a 'public good'.

The privatization of payment systems also sheds new light on the issue of those that are excluded from – or prevented from entering – a payment community on the grounds that they are uncreditworthy, unable to handle a cheque book or unable to understand a bank statement. The people who find access to payment sub-systems most difficult will also be those who bear the highest transaction costs when they come to use them.²⁶ The reason why LETS and the like are emerging is to compensate for such fragmentation of the national monetary order.

The break-up of money described in this article raises new questions as to the distribution of responsibilities between the private and the public sector. Is the public sector responsible for the proper working of payment systems and their various sub-systems, even if they are private? Who bears responsibility when certain players put the whole system at risk or quite simply hold it to ransom? How can a general

²⁴ J. Bichot, *Huit siècles de monétarisation: de la circulation des dettes au nombre organisateur*, Economica, Paris, 1984, p 224.

²⁵ Bichot, *ibid*, defines the 'qualification monétaire' in the following way: 'la commodité d'utilisation, la polyvalence, et l'extension de l'aire de diffusion...', p 224.

²⁶ Paul H. Dembinski, 'Finance informelle en danger', *Reflets et perspectives économiques*, September 1999.

breakdown in the payment system be prevented? Who is responsible when such a breakdown actually takes place, as has been happening in Russia since 1995?

Over the past decade, a debate has been going on about ways and means of designing the new international financial and monetary architecture. In this debate, it has been blithely assumed that we fully understand the workings of the monetary order. However, this article suggests that this may not be the case, and that the present monetary order is far more complex and diverse than is usually thought. It seems that what really holds this system together are the numerical relationships that transactions create between creditworthy parties. What this means is that creditworthiness is an ongoing wager with constantly updated stakes, a largely subjective assessment which has to do with past performance, future expectation and risk, rather than the money supply.

If financial markets are one of the main places where 'wealth' is created, ie where creditworthiness is built up and in turn serves as the basis for the extension of credit lines, then they are an important part of the payment system and must be treated as such. None of the recent financial crises would have taken place if the major financial players had been compelled to take their losses in the same payment system in which they were incurred – in other words, if they had not been allowed to pass their problems on to final customers or taxpayers.

The whole purpose of *The Philosophy of Money* was to discover the essence of money. 'The meaning of money lies in the fact that it will be given away. When money stands still, it is no longer money according to its specific value and significance. The effect that it occasionally exerts in a state of repose arises out of an anticipation of further motion ... It is, as it were, an *actus purus*; it lives in continuous self-alienation from any given point and thus forms the counterpart and direct negation of all being in itself,' Simmel said in his conclusion, reverting to what seems an extremely substantial point of view.

Our conclusion is at odds with Simmel's fundamental premise that there is such a thing as an invariable 'essence of money'. Instead, the arguments presented above suggest that money is embedded in a monetary order and does not exist in its own right. In turn, any monetary order has two complementary components: the institutional setting and 'money' as a thing. A monetary order unchanged for the past hundred years is now undergoing profound changes that are leading to a radical weakening of 'money' as a thing, at a time when the complexity of institutional arrangements is increasing to an unprecedented extent. In the emerging monetary order, the 'break-up' of money means that the traditional functions of money are being taken over by other, more specialized, dedicated instruments and institutional arrangements. As a result, the classical concept of 'money' is becoming meaningless, not to say misleading. Today, 'money' – as a generic term for dollars, euros and various other currencies – simply means a unit, symbol or sign used by economic players within a specific numerical convention to quantify and record their mutual transactions and relationships.