Gary Becker on Free Banking

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Abstract

Gary Becker´s paper about free banking written in 1956 was originally intended as a reaction to the 100-percent reserve proposals that were then popular at the University of Chicago. Today the original paper clearly illustrates how considerably our views and theories about free banking have evolved in the past 50 years. This development is to a considerable extent the result of the work and the writings of economists of the Austrian School. Pascal Salin is one of the most prominent members of the Austrian free banking school. In a new introduction to this 1956 paper written especially for the ***Festschrift*** in honor of Pascal Salin, Gary Becker partly repudiates and mitigates some of his previous conclusions. This event offers a fitting opportunity to review some developments in the theory of free banking and related issues and to add a few clarifications concerning the present "state of the art" as regards an acceptable and adequate concept of free banking.

I. Introduction

The recently edited ***Festschrift*** in honor of Pascal Salin[1] is a highly varied and disparate collection of contributions by colleagues, admirers and friends of the famous French professor of the Université Paris-Dauphine, ranging over a wide variety of subject matters, from personal testimonies and reflections about the methodology of the social sciences to contributions about the relationship between liberalism and Christianity and a plea on behalf of the liberalization of African economies, besides more conventional topics such as the economic analysis of taxation and the theory of money and banking. As such the book, which abundantly illustrates the wide-ranging intellectual interests and accomplishments of the French professor, constitutes a publication event of the greatest significance. It is probably hardly necessary to present the world-renowned professor even to a non-French public.[2] In this contribution I will offer a few critical comments concerning one of the most remarkable

contributions contained in the book, which is a paper by Nobel Prize winning economist Gary S. Becker entitled ***Free Banking*** (ibid. 227-234).

It has been an apt initiative to include this paper into the ***Festschrift***. As is well known among specialists, Pascal Salin´s role in the diffusion of ideas related to currency competition and free banking has been seminal since years. [3]

In the new introduction to the paper written especially for the ***Festschrift*** in honor of Pascal Salin, Gary Becker points out that he wrote this paper on free banking in 1956 as a reaction to the 100-percent reserve proposals that were then popular, especially at the University of Chicago and that he intended to argue, basically, that a 100-percent reserve system requirement is an undesirable regulation since the banking industry was already overregulated. He also adds that the paper obviously needs a thorough rewriting, in particular to bring the treatment of macroeconomic policy up to date.

The paper is a short one (8 pages) but it is nevertheless significant. It is interesting and important because it illustrates how far the views and theses of the Chicago School were originally removed from those of the Austrian School when it comes to the theoretical analysis of monetary and banking matters, and to some degree it also illustrates how considerably the debate and theses about free banking have evolved during the past fifty years. Both with respect to the definition of free banking, and with respect to the hypothesized working characteristics of this institution, Becker´s original paper made a number of claims which today appear quite remarkable from a more truly free banking perspective. In his new introduction to the original 1956 paper, Becker partially repudiates or mitigates his previous conclusions regarding free banking. This event offers a fitting opportunity to review some recent developments in the theory of free banking and to add a few clarifications about the present “state of the art” concerning an acceptable concept of free banking.

II. Gary Becker´s definition of free banking

Becker´s original 1956 proposal for free banking contained the following ingredients:

1. The Federal Government will retain its monopoly of the printing of currency or notes.
2. Otherwise there will be essentially free banking. Banks will be free to set themselves up and establish their own reserve ratios, interest rates, lending policies, and so on. That is, banking will be considered an industry like any other, and competition rather than Government will be the controlling mechanism.
3. There will be some ***overall*** countercyclical policy. The leading idea is that the proper role of Government in combating cyclical movements is through overall, general policies and ***not*** through specific ones.

Becker distinguishes his own proposal from two other kinds of schemes:

- The 100-percent reserve scheme as usually presented which provides for 100-percent reserves against deposits subject to check, and government monopoly of the note issue.
- A kind of scheme which Becker characterizes as “the present intermediate position” and which he considers the least desirable of the three.

In the remainder of the present paper I will take a critical look at the three ingredients which according to Becker´s original proposal define a free banking system.

III. Does free banking require a government monopoly of the currency or note issue?

In the new introduction to his 1956 paper written for the ***Festschrift,*** Becker points out that he had originally been bothered by his conclusion that the Federal government should retain a monopoly over currency and that he had only reluctantly accepted the at that time common argument that the supply of notes would increase without bound if they were issued only by a competitive banking system. In view of what are now known as possible solutions of the durable goods problem – but which were not known 50 years ago – Becker now agrees that private bank money may be feasible.

As regards the first ingredient of his scheme, Becker had originally provided the following rationale:

"Competitive private enterprise alone cannot provide this currency, for profit incentives would reduce this to a pure commodity standard. In other words, the equilibrium price level would be infinity. This implies that a finite, relatively stable price level can be maintained only if the government issues notes." (ibid. 229)

A footnote accompanying this passage refers to M. Friedman, without indicating any of Friedman´s writings more specifically. In his ***A Program for Monetary Stability*** (Friedman 1960), Milton Friedman had asked the question "whether monetary and banking arrangements cannot be left to the market, subject only to the general rules applying to all other economic activity (…)" (ibid. 4) and he had listed a number of "good reasons" why monetary arrangements have seldom been left to the market. (ibid. 8)

One of these "good reasons" relates to what Milton Friedman referred to as "the technical monopoly character of a pure fiduciary currency

which makes essential the setting of some external limit on its amount (…)". (ibid. 8)

And in this respect he had indeed argued that:

"So long as the fiduciary currency has a market value greater than its cost of production – which under favorable conditions can be compressed close to the cost of the paper on which it is printed – any individual issuer has an incentive to issue additional amounts. A fiduciary currency would thus probably tend through increased issue to degenerate into a commodity currency – into a literal paper standard – there being no stable equilibrium price level short of that at which the money value of currency is no greater than that of the paper it contains. And in view of the negligible cost of adding zeros, it is not clear that there is any finite price level for which this is the case." (ibid. 7)

As Becker points out in the introduction to the paper, the problems raised by the incentives of private banks to continue to issue money until prices measured in these currency units become infinite are related to the so-called "Coase conjecture" (Coase 1972), or the problem of pricing of durable goods over time by a monopolist.
As a monopolist continues to produce a durable over time, his past production competes against his current production. This raises the supply over time, and with a given demand function, forces down price over time. Eventually, prices reach the monoplist´s cost of production, and he no longer makes any profits.

As Becker pursues:

"There is an exact correspondence with money supply creation by a private bank. As the bank creates a new supply of money each period, this flow competes against the supply created in prior periods, and the

total stock rises over time – ignoring any physical depreciation in the stock. As the stock continues to rise, the value of this bank´s money falls until it reaches the cost of producing more of its money, which I take as approximately zero. Then prices in terms of this money are infinite, and the conclusion in the text follows." (ibid. 228)

In Becker´s own scheme an infinite equilibrium price level would be avoided because checking institutions with demand liabilities would contract to convert deposits on demand into government notes (or currency). The possibility of conversion would induce banks to hold some of their assets in currency. The necessity of converting deposits into government notes leads to a finite nominal value of deposits, and hence to a finite price level. (230)

Under imperfect foresight, which Becker indeed assumes (ibid. 229-230), the traditional approach to preventing a profit-maximizing private issuer from hyperinflating is indeed to write a contract obligating the issuer to buy back his money at a pre-determined price, i.e. a redemption contract. At least for money, redemption contracts would be cheap to write and enforce, or so it appears. (White 1999, 239)

The technical monopoly character of a pure fiduciary currency to which Milton Friedman had made reference had been questioned in a much cited paper by Benjamin Klein. (Klein 1974) Klein´s theoretical case rested on the necessity for a producer of money to establish confidence in his money, and the increasing capital cost of creating such confidence. Several critics had raised doubts, however, about whether Klein´s argument can be carried over to a ***pure fiduciary*** currency. Historically, producers of money have established confidence by promising convertibility into some dominant money, typically specie. (see e.g. Friedman and Schwartz 1986 (1987))

In accordance with the so-called "Coase conjecture" (Coase 1972) a contractual arrangement of the sort embodied in a redemption contract remains essential if a producer, who is selling a good above

its marginal cost of physical production, wants to make it credible that he will not later drive the resale value down by selling more at a lower price. (also White 1999, 239) It does not yet follow, however, that a government monopoly on the note or currency issue is indeed necessary to ensure a finite equilibrium price level. Arguments of this sort predate not only the durable goods literature but also the Public Choice revolution and the revival of the Austrian School including the Free Banking School; they also ignore the now extensive literature concerning the inflationary bias and the effects of time inconsistency under a discretionary central banking regime and concerning the dynamics of possible hyperinflation under central banking.[4]

A quarter of a century after Milton Friedman had considered the reasons for government involvement in monetary matters, he and Anna Schwartz reconsidered the same question in a paper entitled ***Has Government Any Role in Money?*** (Friedman and Schwartz 1986) and which clearly reflects the changed climate of opinion at that moment. According to Friedman and Schwartz the burst of renewed scholarly interest in various aspects of monetary reform was a response to several developments. In particular they mentioned the emergence of the theory of public choice and of the rational-expectations approach and the renewed interest in Austrian economics, with its emphasis on "invisible hand" interpretations of the origin and development of economic institutions, and its interpretation of the business cycle as largely reflecting the effect of non-neutral money. (ibid. 499-500) As a significant external development they also mentioned the emergence of a world monetary system which they characterized as unprecedented: a system in which essentially every currency in the world is, directly or indirectly, on a pure fiat standard. (ibid. 500)

Milton Friedman and Anna Schwartz concluded in their 1986 paper that "the possibility that private issuers can (…) provide competing, efficient, and safe fiduciary currencies with no role for governmental monetary authorities remains to be demonstrated (…)"

(ibid. 520) but they also concurred, despite their critique of the proposal made by Benjamin Klein, that his argument "would not seem to preclude the simultaneous existence in the same community of several dominant moneys produced by different private issuers." (ibid. 507)

The proposal made by the advocates of a system of fractional-reserve free banking (see e.g. Selgin and White 1996] seems to comply with both ***desiderata***, on the one hand the decentralized, competitive nature of the processes of the supply of inside money, and thus the total absence of any government role in the supply of inside money, and on the other hand the requirement of a possibility of redemption in an outside (base) money, in accordance with Coase´s conjecture. It is important to realize, however, that fractional-reserve free banking by itself does not uniquely specify the base money regime. The money-supply implications of free banking are distinct from the implications of any particular monetary standard. (Selgin and White 1996, 19)

As Selgin and White explain:

"Base money could be gold or silver, as would be consistent with the evolution of a monetary system in which government had never intervened. Or it could be some fiat money, with the stock of fiat money permanently frozen (or otherwise determined by a strict rule) to eliminate any scope for discretionary monetary policy." (ibid. 19)

Both Becker and fractional-reserve free bankers Selgin and White believe that ***given*** a particular base money regime ***and given*** a possibility of conversion or redemption of inside money into outside money in accordance with the Coase conjecture, the nominal value of the money stock and of the price level will be finite.

Whereas Becker´s original argument was unambiguously in favor of a government monopoly of the supply of base money (currency or notes in Becker´s original proposal), fractional-reserve free bankers

Selgin and White seem to consider such a monopoly a possible and acceptable option among other options but apparently do not believe that a serious free banking proposal should be expected to take a definite stance on this issue. Therefore they go on:

"For this reason we do not discuss here the money-supply properties of any particular base money regime." (ibid. 19)

The conclusion that the possibility (for market participants) and the necessity (for the banks) of converting or redeeming deposits in some base money – such as government notes or currency in Becker´s original proposal – would indeed contribute to ensuring a finite equilibrium price level can be granted. Whether this condition is also sufficient, however, would still depend upon the plausibility of the hypotheses we can formulate with respect to the conditions of supply (and with respect to the quantities supplied) of base money itself. Moreover base money brings in problems of itself. Insecure linkage of ordinary money to reserve or base money has often impeded the smooth working of modern monetary systems. (Yeager 2001)

Therefore this author does not agree with the suggestion of Selgin and White that a serious free banking proposal can remain silent about this issue, and in particular concerning the properties and hypothesized working characteristics of different conceivable base money regimes. A consistent and serious free banking proposal should not simply assume that, given a central monetary authority supplying base money in the form of fiat money, the stock of fiat money is permanently frozen, or that it is determined by a strict rule, or that there is no scope for discretionary monetary policy etc. The realism of any such assumptions is disputable on both historical and theoretical grounds.[5]

The considerations which raise serious doubts not only about Becker ´s original plea in favor of a government monopoly of the

currency issue but also about Selgin´s and White´s agnostic attitude with respect to the desirable base money regime are at least threefold:

(a) Public Choice considerations:

A central bank which is capable of influencing the amount of credit expansion effectuated by the monetary system will not be immune from the actions and initiatives of pressure groups lobbying for the benefits accompanying such credit expansion. The benefits to be derived from credit expansion may tend to be relatively more concentrated, that is, directed towards identifiable groups, than the costs of credit expansion which may be largely diffused among the general public. Public choice analysis, especially Olson´s, has revealed that it is easier to form an interest group when the number of potential members is small than when the number is large. (Olson 1971) A central bank may thus typically face incentives to pursue goals other than the low inflation desired by the public; monetary authorities may be led to pursue a political agenda, contrary to the interests of the average citizen etc.

(b) The literature on Rules versus Discretion

In the wake of a number of contributions exploring the role of dynamic inconsistency (Kydland and Prescott 1977; Barro and Gordon 1983a, 1983b) the debate on monetary policy and the appropriate role of central banks has for decades been dominated by discussions concerning the relative desirability of rules versus discretion as different possible approaches. With reference to monetary policy, the general idea is rather straightforward: a central bank seeking to manipulate the economy into the best combination of inflation and unemployment through discretionary policy, may find out that its options are so limited that discretion turns out to be a trap, when it faces a public that understands the game.

These models show that discretionary “optimal control” policy, with period-by-period decision making, can fail to attain the best attainable outcome even when there is no knowledge problem, and no malincentive problem. A sub-optimal outcome occurs, even if the monetary authority can perfectly predict the timing, and magnitude, of the effects of changes in money growth on the inflation and unemployment rates, and has a preference function identical to the public´s. The reason for the ill effect of discretionary policy, is that agents with rational expectations respond to prospective changes in monetary policy, revising their inflation-rate expectations accordingly. A change in the expected inflation rate alters the parameters of the policy-maker´s decision problem, and calls for further adjustments to policy. The sequence of such conjectural changes converges on a sub-optimal outcome. The outcome is sub-optimal because, in period-by-period decisions taking the discretionary regime and its associated rational expectations as given, the policy-maker cannot internalize the effect that the policy regime itself has on expectations, and, thereby, on the decisions of agents. Discretion results in sub-optimality because there is, in the nature of the case, no way to induce future policy-makers to consider the effect of their likely discretionary policy, via expectations, on the decisions of current agents; and there is no way to convince perceptive agents, today, that if they were to expect a long-run optimal policy (zero inflation) to prevail tomorrow, they will not be cheated when tomorrow arrives, by the choice of what then seems the best policy (positive inflation). Some sort of rules or binding precommitments are needed to internalize the externality from unconstrained future policy. (see also White 1999, Chapter 10)

The analysis of time inconsistency in monetary policy has been important for at least two reasons. First, it forces us to examine the actual incentives faced by the central bank. The time-inconsistency literature contrasts sharply with the older tradition in monetary policy in which the policy-maker was simply assumed to follow an arbitrary or perhaps optimal rule. The newer view stresses that policy-makers

may face incentives to deviate from such rules. Probably the most important contribution of the literature on time inconsistency has thus been to provide a theoretical framework for thinking formally about credibility issues, on the one hand, and about the role of institutions and political factors, on the other, in influencing policy choices.

Second, to the extent dynamic inconsistency is important, models that help us to understand the incentives faced by policy-makers and the nature of the decision problems they face are important for the normative task of designing policy-making institutions. In order to influence efforts at reform and redesign of society´s monetary institutions, monetary economists need models that help in understanding how institutional structures actually affect policy outcomes. From the perspective adopted here it will be noted that the proposals for reform of our monetary institutions which have resulted from this literature have nevertheless remained extremely limited.[6]

It is the great merit of Pascal Salin to have had the courage to push the analysis beyond the conventional boundaries. In an important critical note concerning Bennett T. McCallum (1988) and Alan S. Blinder (1988) Pascal Salin has pointed out that the usual ranking, even if it involves some useful distinctions such as the differences between simple rules and complex rules and the differences between rules concerning instruments and rules concerning outcomes, is actually a partial ordering of a wider class of possibilities. In particular the more fundamental distinction is the distinction between rules of just conduct and commands, i.e., rules commanding a result.

Adding this distinction between rules of just conduct and rules imposing a result, the classification ought to be the following:

1 Rules of just conduct

2 Rules of result (specific commands)
  2A simple rules
    a instrument-based rules
    b outcome-based rules
  2B complex rules (close to 3 – discretion)
3 Discretion

Policies have to be evaluated according to (1) the extent to which they are respectful of property rights and (2) their capacity to give reliable information. Considering first-best solutions a feasible option, a rule of just conduct in the field of macroeconomic policy would then imply, for instance, a practicable variant of currency competition. Considering, however, that we live in a second-best world where the production of money is monopolized by the State, rules are better than discretion, and instrument-based rules are preferable to outcome-based rules. (see Salin 1988a)

(c) The Austrian Theory of the Business Cycle:

Gary Becker does not mention the Austrian theory of the business cycle and perhaps he has reasons, which are left implicit, to reject it or not to consider it a valid account of cyclical movements in the economy. A possible different explanation of the lack of any reference by Becker to Austrian economics probably resides in the fact that his original article predates the revival of Austrian economics by almost twenty years. Nevertheless the Austrian theory of the business cycle contains a more or less explicit argument against money and credit creation by a central bank, and this argument, since it is conceived from within a peculiar scientific framework, is distinct from the two previous arguments.

There are reasons to believe that central-bank monetary policy, even under a non-discretionary rules-based regime, will yield sub-

optimal outcomes. These reasons can be grasped from the perspective of an altogether different theoretical framework.

Under central banking, the banking system demands money issued by the central bank - known as “base money” - to meet the demand for currency in circulation, to clear interbank balances and to meet the requirements for the minimum reserves that have to be deposited with the central bank. Given its monopoly over the creation of base money, the central bank is in a position to exert a dominant influence on money market conditions and thereby steer money market interest rates. Changes in money market rates in turn affect other market interest rates, albeit to varying degrees. This mechanism of tampering with money market conditions and in particular with interest rates inevitably sets the stage for the processes of forced saving, the boom-bust cycle and recurring recessions. This observation remains valid even if the central bank adopts as its primary objective the maintenance of price stability.

In line with the way inflation actually operates in contemporary central banking systems, it can at first be assumed that an additional supply of money is created by a deliberate policy move by the monetary authority, for instance by an injection of bank reserves through an open market purchase. If additions to the money supply are made through open market operations, new reserves arrive at those banks who sell securities. As a result these banks now have additional reserves to lend out, and these additional reserves will cause banks to lower the rates of interest they are charging in order to attract additional borrowers for those additional reserves, increasing the level of investment. At the lower market rate, investors will be more interested in borrowing and longer-term investment projects in particular will be more attractive at the new rate. However, because the time-preferences of consumers have not changed, there is no reason to expect that ***ex ante*** savings will have changed. The additional borrowing that is taking place is not being financed by the voluntary savings of the public. Inflation thus creates an

intertemporal discoordination, that is to say a mismatch between the time-preferences of the public and the cost of funds faced by investors. ***Ex ante*** investment is greater than ***ex ante*** savings but since ***ex post*** investment must equal ***ex post*** savings, the total amount of ***ex post*** savings is greater than what the public voluntarily wishes to save. The difference is referred to as ***forced savings***. It is important to realize that even though forced savings provide the resources necessary to undertake the inflation-driven investments, they cannot render the ensuing capital structure sustainable because the savings are not reflective of the actual time-preferences of the actors from whom the savings have been involuntarily extracted.

The ways in which the recipients of the excess supplies of money decide to dispose of their excess real balances will begin a process of relative price disruption. Such injection effects will also matter for the intertemporal price structure. Credit expansion - or the lending of money into existence - sets into motion a process of capital restructuring which is at odds with the unchanged intertemporal preferences of economic agents and which is therefore ultimately ill-fated. Because of the mismatch between intertemporal production decisions and preferred intertemporal consumption patterns, the boom will be revealed as unsustainable. The changes in the intertemporal structure of production are self-defeating. Resource scarcities and a continuing high demand for current consumption eventually turn boom into bust. Therefore a centralized banking system can be expected to generate a higher degree of intertemporal discoordination and macroeconomic instability – and therefore also a higher rate of accompanying waste – than a decentralized banking system, in particular a banking system operating on the basis of a 100-percent reserve requirement.

Higher degrees of intertemporal discoordination and macroeconomic instability beget higher rates of waste. In the process of lengthening and then shortening of the structure of production, as occurs in the course of a Hayekian cycle, what could have been

produced to satisfy human needs, had the malinvestments not taken place, and had the monetary expansion not discoordinated the interdependent plans of market participants, is lost forever. Errors cannot be corrected costlessly.

Is this theory still relevant for the understanding of real-world events? Today´s economists generally accept that the factors underlying business cycles have a variety of origins, of both a demand- and a supply-related nature, but they also increasingly recognize that these may well include Austrian aspects. It may be that Austrian factors have become more important with the changes in the international financial system of the past twenty years. Increasingly mobile capital flows now quickly seek out investment projects that are perceived to provide the most attractive returns. The Japanese boom and bust of the 1980s and 1990s is an example of a recent cycle with Austrian characteristics. The upturn of this cycle was driven by strong expansions of money and credit, which fueled a level and direction of investment that was unsustainable. In the aftermath, businesses suffered from chronic overcapacity, and long-term declines in corporate profitability led to a sharp deterioration of banks´ loan portfolios. Moreover, the traditional Keynesian policy approach of demand stimulation was unsuccessful in bringing the economy out of recession. In fact repeated injections of liquidity by the Bank of Japan have worked to delay the necessary restructuring effort. (see also Oppers 2002)

The previous considerations elucidate some of the reasons why some authors have considered that the theorists of the Chicago School are guilty of naiveté in ascribing to governments the desire and ability to administer a stable monetary policy under all circumstances. (see e.g. Huerta de Soto 2006, 735) This naiveté was also apparent in Becker´s original 1956 paper in which he arrived at the conclusion that a government monopoly of the currency issue is preferable to decentralization in banking and currency competition.

In fact, the foregoing considerations entitle us to reject not only Becker´s original proposal for a government monopoly of the currency issue but also Selgin´s and White´s agnostic attitude with respect to the desirable base money regime, and to adopt instead a presumption in favor of (1) decentralization in banking and thus the elimination of a centralized monetary authority such as a central bank and (2) a monetary standard or base money regime based on specie, in particular a gold standard. As Ludwig von Mises used to point out, the decisive advantage of a commodity standard – such as a gold standard – is that it makes the increase in the supply of the commodity depend upon the profitability of producing it. (e.g. Mises 1998, 471)

Moreover Ludwig von Mises´ views about free banking were still closer to certain classical definitions of freedom in banking, as they were stated in the nineteenth century, in particular in the writings of authors like Charles Coquelin and Henri Charles Carey. These classical views are well synthesized in a separate contribution to the ***Festschrift*** authored by Antoine Gentier. (ibid. 251-264) According to these conceptions, the idea of a government monopoly of the printing of currency or notes is considered contrary to the very essence of a genuine free banking system.

IV. Is fractional-reserve banking to be considered an industry like any other?

The proposition that banking in general is to be considered an industry like any other can be acknowledged as accurate provided it is correctly interpreted, that is, if it is understood in the following sense: There are no reasons not to subject the business of banking to the same general rules of conduct as those to which other kinds of business are subject. The question then remains what exactly those rules are. Finding a generally acceptable answer to this latter question constitutes the real source of controversy in this domain.

Becker´s rejection of the 100-percent reserve schemes is based on his belief that the 100-percent reserve rule constitutes an instance of "overregulation" or an "undesirable regulation" of the banking industry. This rejection clearly places him outside of the mainstream in monetary and banking matters within the Chicago School. The Old Chicago-School tradition of support for a 100-percent reserve requirement can be associated with names of theorists such as Henry C. Simons, Albert G. Hart and James W. Angell, among others. Irving Fisher compiled these proposals in book form in his ***100 Percent Money***. [7] The trend finally culminated in the publication of Milton Friedman´s already mentioned ***A Program for Monetary Stability*** in 1959. The 100-percent fiat standard as proposed by Irving Fisher and continued by the Chicago School must be distinguished from the proposals of the hard money school, however. Both schools differ in emphasis and fundamental philosophy. The Chicago School views the 100-percent money proposal as a "technique", that is to say an efficient, useful tool of the government in controlling the money supply and eliminating the inherent instability of fractional-reserve banking, due to lags or friction in the banking system. The return to 100-percent specie in contrast is regarded as a return to the free market in money and the full restoration of property rights for depositors.
It will further be noted that business cycle effects can be generated by the 100-percent fiat reserve standard as well as by a fractional-reserve banking system. Jesús Huerta de Soto summarized his assessment of the Chicago School proposals very well when he wrote:

"However, in general, Chicago theorists have defended a 100-percent reserve banking system for exclusively practical reasons, believing this requirement would make government monetary policy easier and more predictable. Therefore the theorists of the Chicago School have been guilty of naiveté in ascribing to governments the desire and ability to administer a stable monetary policy under all circumstances." (2006, 734-735)

Becker believes that his proposal, when compared with the Friedman-style 100-percent scheme, is superior in at least two respects. First, whereas the 100-percent reserve scheme is thought to take government intervention out of the industry of lending and borrowing, his scheme goes further in that it also takes government intervention out of the checking deposit industry. Therefore, on the grounds of minimizing direct government control his proposal is thought to be desirable. (ibid. 233) Second, whereas the 100-percent scheme means that there will be freely determined reserve ratios for all private obligations other than checking deposit liabilities, his own scheme does not treat checking deposits differently from other short run assets and thus makes no artificial distinction between checking deposits and other short run assets. His own scheme says that there will be freely determined reserve ratios for ***all private*** liabilities. There will nevertheless be 100-percent reserves against notes, the issue of which would be a government monopoly. (ibid. 233-234)

Both alleged virtues of Becker´s scheme are illusory, however. Becker´s first point is question-begging since it assumes what has to be rendered plausible in the first place, namely that the act of creating checking deposits out of nothing – which constitutes the normal activity of the checking deposit industry but which at the same time is a modality of money creation - constitutes an act of normal business essentially similar to any other kind of honest business, that is, acts of the same order as, say, selling a product or a service. As Austrian theorists have pointed out repeatedly and consistently, there are important reasons for not considering the act of creating money ***ex nihilo*** as an act of the same order as, say, selling a product or any other kind of normal and honest business acts. But then, and so long as (some degree of) government intervention in the domain of law enforcement is taken for granted, that is, so long as law enforcement has not been completely privatized, a (second-best) case can be made for government intervention in the checking deposit industry, in

particular by imposing a 100-percent reserve requirement, be it only as an imperfect and temporary solution. The concept of “regulation” and therefore also those of “de-regulation” and “over-regulation” undeniably exhibit a certain ambiguity. In a world characterized by an almost universal (but disputable) recognition of the legitimacy of fractional-reserve banking, imposing a 100-percent reserve requirement in banking may at first seem to constitute a step towards more regulation and thus appear as a move away from the principles underlying the functioning of a free, unhampered market society.[8] Advocates of such a 100-percent reserve requirement will point out, however, that this cannot be true, for by and large the same reasons that, say, a state-enacted law forbidding certain forms of theft and fraud could not possibly constitute a move away from the legal and/or ethical principles of a free market society. If imposing a 100-percent reserve requirement may indeed appear as a form of “regulation”, then it is a form of regulation which actually restores to operation a free market principle, even if on the other hand the concept of “regulation”, in most of its ordinary uses, has usually the opposite connotation of a move away from the free market, and actually, of a violation of free market principles.

As regards the second point, it is not correct to stipulate that the distinction between checking deposits on the one hand and short run assets on the other is an artificial one, or that it is not really important. The act of creating checking deposits out of nothing for a certain amount is an act of money creation for the same amount. Checking deposits, being redeemable into base money at par and upon demand, constitute readily available purchasing power for the market participants who hold these deposits. In this respect their status is similar to that of actual depositors, that is, market participants who actually made a shift from holding money in the form of currency to holding money in the form of checking deposits, thus modifying only the form in which they dispose of money, and without ever giving up any readily available purchasing power in the

process of performing this shift. On the other hand such a shift between currency and checking deposits – and in particular a shift ***from*** currency ***to*** deposits - is of course different from the act of creating the checking deposits out of nothing since in and by itself a shift from currency to deposits subject to check is not directly an act of money creation. In a different sense such a shift is no less different, however, from the act of creating a short run liability or of acquiring a short term asset. A market participant who grants a loan to a bank and who acquires a short term asset in exchange at least temporarily gives up an amount of readily available purchasing power. We can thus see that Becker´s proposal for a regime of banking with fractional reserves, no less than all other proposals for fractional-reserve banking, has to involve an attempt to obliterate the unbridgeable conceptual gulf between deposit arrangements and loan arrangements. Since a fundamental distinction between loan arrangements and deposit arrangements has traditionally been sanctioned and vindicated by general legal principles, the case for fractional-reserve banking is particularly uneasy from the legal-theoretical perspective.[9]

V. Is there any need for some overall countercyclical policy under free banking?

Under Becker´s proposal for free banking a shift between currency and checking deposits – and even if one is free to consider that such a shift does not in and by itself constitute a change in the money supply - may have an (indirect) effect on the stock of money, and thus also on economic activity.

The point is clearly acknowledged by Becker himself since he writes:

“For example, shifting from time deposits or from the granting of book credit affects the firms with these short run liabilities. Their cash reserves will generally only be a small fraction of their total short run

liabilities. If their creditors demand cash the reserves will be run down, and to some extent this probably will force them to contract their lending (or spending as the case may be). Consequently there will be depressive effects on income and employment." (ibid. 231)

Becker´s proposed system would thus not be free from what one author has recently characterized as "the perils of base money". (Yeager 2001) As Yeager reminds, inflations and deflations and the attendant disruptions of economic calculation and coordination have been mainly phenomena of base money and its manner of injection and withdrawal. (ibid. 260)

Becker also considers the possibility of introducing a system of government insurance of bank deposits so that banking panics such as the one that occurred during the Great Depression would be prevented but he rejects such a proposal as undesirable because of "the desire to get the government out of the banking business." (ibid. 232) In conjunction with his rejection of government-backed deposit insurance schemes, Becker conjectures that "[a]n effective general countercyclical policy would probably be sufficient to prevent any large scale panic." (ibid. 233) It is thus supposed that general countercyclical activity of the government will succeed in keeping within tolerable limits both bank failures due to panicky attempts to convert deposits into currency and failures of other kinds of firms.

How should Becker´s rejection of government deposit insurance be evaluated? Both at the theoretical level (see Diamond and Dybvig 1983) and from a historical perspective the force of the argument in favor of government deposit insurance should not be underestimated. As Friedman and Schwartz (1963, 11) remind us, writing about the Great Contraction:

"In banking, the major change was the enactment of federal deposit insurance in 1934. This probably has succeeded, where the Federal Reserve Act failed, in rendering it impossible for a loss of public

confidence in some banks to produce a widespread banking panic involving severe downward pressure on the stock of money; if so, it is of the greatest importance for the subsequent monetary history of the United States. Since the establishment of the Federal Deposit Insurance Corporation, bank failures have become a rarity."

And further:

"Adopted as a result of the widespread losses imposed by bank failures in the early 1930´s, federal deposit insurance, to 1960 at least, has succeeded in achieving what had been a major objective of banking reform for at least a century, namely, the prevention of banking panics." (ibid. 440)

Following this account Becker´s rejection of government deposit insurance and his endorsement of countercyclical policy instead seem questionable indeed. It will be noted, however, that the institution of a deposits insurance system entails problems of moral hazard (regulation failure). A bank´s depositors are guaranteed against loss, and therefore lose any incentive to monitor the management of the banks with which they keep their funds. The management need no longer worry about maintaining depositor confidence, and so they take more risks, run down the bank´s capital, and generally undermine the bank´s financial health. (Dowd 1996, 454-5)[10]

From this perspective Becker´s rejection of government deposit insurance constitutes clear proof of prescience since he writes that "[i]f government insured they would necessarily influence reserve ratios, lending activity, etc." (ibid. 232) It will be noted, however, that the institution of a lender of last resort has similar effects. A bank´s management can rely on the central bank to provide it with emergency loans, that is, loans it presumably could not obtain elsewhere in the market, or could only obtain at greater cost. The availability of such loans reduces the penalty to the bank for allowing its credit-

worthiness to deteriorate, and thereby implicitly encourages the bank to act in ways that promote such deterioration. (Dowd 1996, 454-5)

The economic rationale for countercyclical policy offered by Becker invites some further comment. This rationale is framed as an argument in terms of the necessity or at least the desirability of curing (correcting) external effects:

"It is argued that when an individual shifts between currency and checking deposits he merely wishes to alter the form in which his "money" is held. But because of fractional reserve banking this shift affects the total stock of money, and hence prices and employment. Since the latter changes affect other individuals, there is an argument based on the discrepancy between social and private costs for government control of the effects of this shift. (…) More generally, any shift from goods or debt into currency imposes through the multiplier or velocity mechanisms social costs that are not completely borne by those doing the shifting. This, indeed, is the major argument for active government participation in fighting cyclical movements." (ibid. 232)

Arguments for government intervention allegedly intended to cure the harm resulting from external effects had been made in this context before Becker. Vera Smith, in her rightly acclaimed book ***The Rationale of Central Banking and the Free Banking Alternative***, mentions the case of general runs on the banks as one where uncompensated damage is inflicted by the guilty banks on their innocent rivals, and as such giving grounds for some kind of intervention along the lines suggested by Pigou in his ***Economics of Welfare***. (Smith 1990, 187) [11] Apparently for Vera Smith too 100-percent reserve banking is no alternative to be taken seriously since she writes that "no bank can be 100 percent liquid". (ibid. 187)

Nevertheless the argument cannot be followed. We would today rather look for a solution in the direction of a more adequate definition and/or a more strict enforcement of property rights, that is, a re-definition and/or a stricter enforcement of the fundamental "rules of

the game" rather than for a solution along Pigovian lines. Recent debates have in fact been framed in such terms. For instance the controversy between the fractional-reserve free bankers on the one hand and the advocates of a 100-percent reserve requirement in banking on the other is at bottom one pertaining to what constitutes an adequate definition and enforcement of property rights in banking.

Any decision taken by any individual has consequences on some other individuals, which means that all the members of society are interdependent. But the fact that activities are interdependent does not mean that there are externalities. On cannot assume that externalities exist without having first determined who has the right to do what. (Salin 1988b, 294) If property rights are clearly defined, which means that one does know what each individual has the right to do and not to do, externalities do not exist. (ibid. 292) As Pascal Salin points out, the existence of externalities is mainly called for by people who would like others to behave as they wish. The word "externalities" is misleading, and we ought to speak rather of the absence of property rights and of legitimizing coercion. (ibid. 292) But even if it were somehow possible to refer meaningfully to the existence of "externalities, it does not follow that governments are able to pursue a stabilization policy. Lacking the information on the working of the system, the preferences and targets of individuals, governments can take decisions only on the basis of a very simplified model of society.

As Pascal Salin argues, besides the fact that the subject of macro-stabilization leads straight to the ethical problem of the desired frontier between the private sphere and the public sphere, there is no economic justification for macroeconomic stabilization policy, and there can be no "public good" argument for state macroeconomic stabilization. Macroeconomic stabilization problems are mainly information problems, but information is not a public good and it is always costly. Information is best provided by those who have an interest in providing it. If the concept of macroeconomic stabilization

has any meaning, it is best achieved in an environment of a decentralized decision-making process. The argument against macroeconomic stabilization is parallel to the one against central planning, which has been emphasized by the Austrian tradition. (Salin 1990a) [12]

The working of a free society implies or presupposes the definition of "general rules of conduct" which can partly be defined and sanctioned by an institution called "the state". In his critique of the idea of macro-stabilization policies from a market process perspective Pascal Salin (1990a) concluded that individual stabilization and, therefore, macro-stabilization are made easier if these rules are stable and predictable. Therefore, the contribution of the state to macro-stabilization ought to be stabilization of the rules, the definition of which is its specific responsibility." (ibid. 220)

The even more consequential argument against general countercyclical policy contrived to counteract cyclical movements of key economic variables, however, is that it can only add to the very evils it is supposed to cure. According to the Austrian theory of the business cycle which I have summarized, these cyclical movements and boom-bust cycles are themselves the inevitable consequences of money and credit expansion brought about by a centralized banking system operating under a regime of fractional reserves. The economic instability that is so characteristic of the actually existing capitalist economies is no "act of God". The "generally bad times" to which Becker refers (ibid. 233) are not like "bad weather" due to the operation of uncontrollable natural forces, nor would such instability bedevil a truly unhampered market system free of government intervention in monetary and banking matters. The restoration of a 100-percent reserve rule in banking, far from being a specific kind of unwarranted government intervention in the market as Becker suggests, would only subject the banking business to the general rules of conduct appropriate for a free society.

Nevertheless, past debates and discussions on how to conceive of adequate monetary arrangements from a market process perspective lead to the conclusion that some controversy (disagreement) in this domain is likely to subsist. Several scholars who have thought deeply about this question, including Pascal Salin, have favored a proposal for a free banking system based on fractional reserves. As this author has explained elsewhere (see van den Hauwe 2006) a different and arguably more effective way to achieve the result of monetary arrangements that would favor a desirable degree of macroeconomic stability would consist in bringing about a complete institutional separation of deposit banking from loan banking along the lines proposed by the advocates of a 100-percent reserve requirement in banking. Probably to some extent market forces could be relied upon in order to bring about this result.

Contrary to the allegation of Vera Smith a bank ***can*** indeed be 100 percent liquid, in the sense that it can hold reserves against the total amount of its demand liabilities, i.e. the outstanding liabilities that are redeemable upon demand.

The 100-percent reserves proposal is criticized in Yeager (2001). Yeager criticizes first the idea that money is essentially a commodity valuable in itself. Subsequently he also points to the impracticality of 100-percent reserves. He writes:

"Money evolved from directly useful commodities that proved convenient as intermediaries in indirect barter (Menger 1871/1950, chapter VIII and Appendix J, Menger 1892, Menger 1892/1909/1970). To suppose, however, that the essence of a developed institution must remain specified by its genesis or earlies form is to commit the "genetic fallacy" (…). An example is to suppose, on historical grounds, that money is fundamentally or most properly a commodity valuable in itself, like gold or silver, and that if paper notes

and bank deposits have taken over its functions, these substitutes should at least be redeemable in real money." (ibid. 255)

It is remarkable that Yeager refers extensively to Menger´s views about the origin of money but mentions neither Ludwig von Mises´s monetary writings nor the regression theorem. It is an implication of the regression theorem, which Mises built as a theoretical insight upon Menger´s historical account, that in the spontaneously or "naturally" developed monetary economy the definitive money is ***specie***. A specie unit is also the unit of account. ***There is no spontaneous or market-driven path from this system to the non-commodity or fiat standards that prevail today.*** [13]

According to the regression theorem, money ***must*** arise in the manner described by Menger, that is to say it must develop out of a commodity already in demand for direct use, the commodity then being used as a more and more general medium of exchange. Demand for a good as a medium of exchange ***must*** be predicated on a previously existing array of prices in terms of other goods. Admittedly the regression theorem has not been universally convincing. In particular Walrasians such as Patinkin had suggested that the theorem is really superfluous. The controversy obviously also reflects distinct methodological approaches. Whereas Mises´s analysis is grounded in temporal cause and effect, the Walrasian approach exemplifies the method of simultaneous and mutual determination. In historical practice, a nation´s switch to fiat money was typically made by the central government first granting a legal monopoly of note-issue to a single institution, a central bank, whose liabilities became as widely accepted as specie, and displaced specie as the reserves for other banks. The government then suspended, permanently, the redemption of the central bank´s liabilities. With their permanent suspension, central bank notes and deposits became a fiat base money. The fiat-money unit correspondingly became the unit of account. The now-irredeemable notes can continue to circulate

because they are familiar, and the practice of continuing to accept them is self-reinforcing: it is not in any one trader´s self-interest to refuse them if he expects others to continue accepting them.

But so what? One might conjecture that the regression theorem does not entail that a fiat money, once in existence, cannot go on to exist for extended or even very long periods of time - although probably at an ever-depreciating value - even without constant further government intervention. In this respect there seems to have arisen an *extensive* as well as a *more restrictive* interpretation of the implications of the regression theorem. According to one interpretation a deeper implication of the regression theorem points to an essential incompatibility between the unhampered market and fiat money. According to this view one can seriously doubt whether conceivably a fiat money could survive for extended periods of time on the unhampered market without constant further protection by further interventionism.

This can be explained as follows. Commodity money enjoys a crucial competitive advantage over fiat money: commodity money is also used outside of indirect exchange. The fact that commodity money always commands a price on the market irrespective of how widespread it is used as money, provides a kind of insurance for the owners of commodity money: the purchasing power of their money never falls to zero because there will always be a non-monetary demand for it. Even if commodity money falls temporarily out of use as money, it can always spontaneously re-emerge as a medium of exchange, since market participants can rely on its present non-monetary market prices to speculate about its future purchasing power.

Fiat money to the contrary has by definition no other than monetary uses. If the demand for it fades away so that it is even momentarily driven out of circulation, it disappears forever; it can never be re-introduced again on the market because there are no

market prices anymore that could serve as a basis for speculations about its future purchasing power. This represents a fatal competitive disadvantage of fiat money. There will therefore be a strong incentive for all market participants to switch to any kind of commodity money rather than remain exposed to the risks of fiat money. The only way in which this can be prevented is by the creation of an artificial demand for fiat money through government intervention, for instance, by requiring taxes to be paid in fiat money, or by legal tender laws forcing market participants to accept payments in fiat money. (Hülsmann 2000, 429) This line of argumentation regarding the essential incompatibility of fiat money and the free market economy has a certain plausibility but clearly it cannot be put directly to the test, and it can be expected to fuel some further controversy.

Furthermore, and contrary to Yeager´s allegation, no genetic fallacy is involved. A genetic fallacy is a line of "reasoning" in which a perceived defect in the origin of a thing or claim is taken to be evidence that discredits the thing or claim itself. The genetic fallacy is a general fallacy of irrelevancy involving the origins or history of an idea or thing. It is fallacious to either endorse or condemn an idea or thing based on its past, rather than on its present merits or demerits, unless its past in some way affects its present meaning or value. The genetic fallacy is committed whenever an idea or thing is evaluated based upon irrelevant history.

However, the theoretician is interested not so much in the concrete past history of fractional-reserve free banking in view of evaluating it, but rather in the abstract theoretical question concerning the kind of forces which can, in general, be expected to sustain this type of institution. It is an interesting theoretical question, for instance, whether and to what extent an institution like fractional-reserve banking can (or cannot) be conceptualized as the outcome of an invisible-hand process. Such exercises need involve no genetic fallacy of any sort. From a purely theoretical viewpoint it is relevant and interesting to investigate to what extent a particular

institution tends to be self-sustaining or not, and in general, what kind of forces can be expected to sustain it.

With respect to the institution of fractional-reserve banking in particular one might then arrive at the conclusion that any attempt at an adequate understanding of its origins, the conditions of its existence and subsistence etc. should adequately take into account the roles of lender-of-last-resort institutions, of government deposit insurance schemes, of government-imposed legal measures curtailing the rights of depositors etc. The point of interest is thus not merely factual and historical but theoretical; it relates to the ***possible*** origins of various monetary institutions, and to the general conditions of their existence and subsistence.[14]

Yeager, however, complains that money´s history supports misconceptions about its role in the modern world. (ibid. 255)
It will be noted that the crucial question is not whether commodity money fits "the modern world". The question is rather which kind of money fits ***a free world***. The history of the modern world is the history of a succession of unwarranted government intrusions and transgressions in monetary matters.

Yeager´s objections against base money are to some degree well-founded but they do not carry over to a 100-percent commodity standard. Advocates of a 100-percent commodity standard do not construct their argument in terms of "base money" or in terms of a distinction between "outside money" and "inside money". The only conceptual distinction which is made and which is needed in this respect is the distinction between ***money*** and ***money titles***. (Hoppe 2006) However, a money title cannot be identical to the money which it represents and thus it is not, in and by itself, money. The phenomena Yeager characterizes as "the perils of base money" arise at first only when we move towards a fractional-reserve regime.[15]

Yeager now points to a further problem: the impracticality of 100-percent reserves. It is objected that such a proposal is not realizable or cannot be implemented. One has to distinguish a claim

concerning the alleged impracticality of a commodity money from a claim concerning the alleged impracticality of 100-percent reserves. As regards the former, many examples can be cited of fairly long-continued and successful producers of private moneys convertible into specie. (Friedman and Schwartz 1987, 507) Furthermore, as I have pointed out, the regression theorem rather tends to suggest that in a free society ***anything except commodity money*** would be impracticable. But Yeager´s claim concerns more particularly the impracticality of 100-percent reserves requirement. This is an odd objection. Why would a 100-percent reserve requirement be more difficult to impose and enforce than any of the other fundamental rules of conduct that are essential to a free society, once it can be assumed that the political will to enforce it is not in doubt? Yeager himself points out that "[h]istory shows that incentives to evade a 100-percent-reserve requirement are powerful" (ibid. 256); that is surely true but so have been the incentives for governments to go to war, to tax their citizens etc.

It can nevertheless be conceded that from a historical point of view, Yeager´s objection is not entirely impertinent. One circumstance that may help explain the historically rather constant tendency towards the development of fractional-reserve banking relates to the problematic character of bearer money certificates under a 100-percent reserve commodity standard. Under a 100-percent reserve commodity standard money certificates payable to bearer are clearly problematic. The reason is that it becomes impossible for the issuing bank to effectuate a correct imputation of the fee due for safekeeping and custody. Market participants who receive such money certificates will spend them almost immediately while it is not possible for the bank to charge them with a fee for the safekeeping of the commodity for the period of time during which they held the certificates in their cash balances. On the other hand the person who would decide to redeem such a certificate will not agree to pay the fee for safekeeping corresponding to the entire period during which the certificate has

been circulating since he may have been holding the certificate in his cash balance for only a very limited period of time. Either the certificate will circulate at a discount, which may discourage some market participants to redeem any such certificates - and this will counteract the tendency for certificates to return to the issuing bank which in turn will lessen the risk of banking with a fractional reserve - or else the bank will find itself in the impossibility to charge anyone with a fee for safekeeping. In such circumstances deposit banking threatens to become an unprofitable business altogether. It comes as no surprise, then, that deposit banks found in the practice of fractional-reserve banking a profitable solution to this problem created by money certificates payable to bearer. Fractional-reserve banking restores profitability and allows the banking business to offer an acceptable return again. This is the explanation behind the observation that has sometimes been made that the genesis of fractional-reserve banking and the widespread use of money certificates payable to bearer tend to go together. The point made here, however, is mainly of historical relevance since the possibilities offered today by electronic banking, such as real-time payment – one thinks of e-gold - eliminate the need for circulating certificates and allow the imputation problem to be solved.

On the positive side, it can easily be shown that whereas the deflationary pressures which Becker correctly identifies are indeed endogenous in the context of a fractional-reserve banking system, these same tendencies would naturally disappear under a commodity standard functioning on a 100-percent reserve requirement. Money that is not created out of thin air does not disappear as snow before the sun. The considerable elasticity of the money stock which is so characteristic of a fractional-reserve system is a feature absent from a 100-percent gold standard. According to the alternative theory of the business cycle developed by the economists of the Austrian School, general countercyclical policies, and in particular policies involving

monetary and credit expansion, will only worsen the evils they are supposed to cure.

We have thus come full circle. Becker´s aim is apparently to remove as much as possible any unwarranted government intervention from the monetary and banking system and at the same time to contrive a cure for the cyclical movements experienced by capitalist societies. A 100-percent reserve requirement in banking would on the one hand subject the banking business to the same general rules of conduct as those to which all other business activities are to be subjected in a free society, and it would at the same time render general countercyclical policies superfluous since it would at once remove one of the major causes – probably ***the*** major cause – of cyclical instability in the economy.

Conclusion

As early as 1956, Gary Becker acknowledged the fact that fractional-reserve banking does not constitute "the best of all possible (monetary) worlds" since he believed that it should be complemented by general countercyclical policy to combat depressions and inflations and to prevent any large scale banking panics .

This viewpoint, as it emanated from an otherwise well known "free market" economist, was somewhat remarkable – not to say almost anomalous – in at least two respects. First, the occurrence of boom-bust cycles, including recessions and depressions, and of generally good and bad times etc. was apparently not conceptualized by Becker as the outcome of unwarranted government intervention in the economy. On the contrary these phenomena were considered endogenous in an otherwise free society and the government has to intervene in order to cure these evils. This view contrasts sharply with the view of Austrians who have consistently put the blame for the appearance of recurring cyclical instability (business cycles) in the

economy on institutional factors, and in particular on government-backed monetary and credit expansion by a centralized banking system operating under fractional reserves. Becker´s fundamental worldview as manifested in the 1956 paper was thus one according to which "the market fails". Such a worldview is actually more akin to the Keynesian conceptualization than to the view of economists commonly designated as "pro-free-market", whether they belong to the so-called Austrian School or to the so-called Chicago School, and who would rather conceptualize the unhampered market as a "spontaneous order".

Second, Becker stigmatized the 100-percent reserve requirement in banking as a ***specific*** kind of government intervention in the economy instead of recognizing it as the normal application to the business of banking of the same legal principles which underlie the free society ***in general***.

In the new introduction to his 1956 paper on free banking written especially for the ***Festschrift*** in honor of Pascal Salin, Becker repudiates or mitigates some of his previous conclusions concerning the feasibility of private bank money. This event has offered us a fitting occasion to review how considerably our thinking about free banking has evolved in the past 50 years and also to add a few comments about "the state of the art" concerning the characteristics of an acceptable notion of free banking. Contrary to his original 1956 opinion Becker now recognizes that there are no convincing reasons to consider a government monopoly of the currency or note supply an essential ingredient of free banking. Fee banking is indeed essentially decentralized banking and any such monopoly is incompatible with truly free banking.

Under a decentralized banking regime based on a 100-percent reserve requirement and on the possibility for market participants to redeem money titles in a commodity money such as gold not only would the equilibrium price level be finite but the "perils of base

money" as manifested by inflations followed by recessions and depressions would be practically non-existent.

Part of the explanation for the "anomalies" in Becker´s original 1956 paper can probably be provided by referring to "the spirit of the age". The moment at which this paper was written predates the demise of Keynesianism and the revival of the Austran school, as well as the rational-expectations approach and the Public Choice revolution in economic science. Today we would naturally be less inclined to take the potential effectiveness of general countercyclical policy for granted as well as more thoughtful concerning the true causes of depressions and inflations.

Ludwig van den Hauwe

Notes

[1] See Laine M. and G. Hülsmann (eds.) (2006).
[2] For a profile of the French Professor, see in particular Hülsmann (2007).
[3] See e. g. Salin (1990b). The ***Festschrift*** contains a full bibliography of Pascal Salin, see Laine M. and G. Hülsmann (eds.) (ibid.) pp. 17-43. The ***Festschrift*** also contains several other contributions about freedom in money and banking, see in particular Centi (2006), Gentier (2006) and Nataf (2006).
[4] White (1999) contains an excellent survey of these developments, except only for the theory of a 100-percent reserve requirement. The standard reference on the latter is now Huerta de Soto (2006a).
[5] It is not even clear that we need a concept of "base money" or a conceptual distinction between "inside money" and "outside money". The proposal for a system based on a 100-percent reserve requirement is not based on the distinction between inside money and outside money. It does involve, however, a different distinction, namely that between ***money*** and ***money titles***.

[6] One kind of proposal that has been made is to delegate monetary policy to an independent central banker who is conservative in the sense of placing a higher relative weight on inflation stabilization than does society as a whole. Another type of proposal consists in contriving an optimal incentive contract for a central banker who responds to monetary incentives. See M. Obstfeld and K. Rogoff (2002) and the literature cited there.

[7] For the Fisher proposal see Fisher, I. ([1935] 1997); on the Chicago plan see, among others, Angell (1935), Hart (1935), Graham (1936), Simons (1936). See also the survey in Huerta de Soto (2006), 731-35.

[8] Apparently this was also Pascal Salin´s view; see his 1990b, p. 150. Pascal Salin writes regarding M.N. Rothbard´s 100-percent reserve proposal: « Certains auteurs – tels Murray Rothbard (par exemple dans ***The Mystery of Banking*** (…)) – qui sont de vigoureux adversaries de l´intervention étatique se rallient pourtant à cette proposition. »

[9] The definitive treatment of these legal-theoretic issues is now to be found in Huerta de Soto (2006a); see in particular Chapters I-III.

[10] The banking crisis in the USA during the 1980s demonstrated the conflict of interest that arose between commercial banks and regulators. The FDIC - the Federal Deposit Insurance Corporation - used to offer almost a de facto full insurance whose premium was not priced according to the risk exposure of the banking institution but as a percentage of deposits (these rules have been changed in 1991). Under that scheme a commercial bank on the edge of bankruptcy had an incentive to take even more risk given that the losses would fall on the insurance system and the benefits on the stockholders. Given that conflict of interest and the cost associated in terms of expensive bailouts, capital requirement has been considered as a solution to screen bank risk exposure. Bank capital adequacy regulation entails problems of its own, however, and thus offers no adequate solution either.

[11] The British economist Arthur C. Pigou first developed the basis for the concept of a Pigovian tax (or subsidy); see his (1920). Pigou

explained that in case the marginal ***social*** net product (including externalities) is different from the marginal ***private*** net product (net products are the results in the output of marginal resource increases), a tax or bounty (subsidy), depending on the sign of the difference, can be implemented to minimize the difference. There is only one tax or bounty for each externality that can lead to the optimum effect, that is, the equalization of the marginal private and social net product.

[12] This subject is also treated in a contribution to the ***Festschrift*** by Jesús Huerta de Soto (2006b), pp. 330-40.

[13] I here assume that the reader is familiar with the regression theorem. I nevertheless remind that Ludwig von Mises presented his so-called "regression theorem" in 1912 (Mises 1981, 129-46) as an answer to the "circularity problem" that thwarted prior attempts to apply marginal utility analysis to the value-of-money problem. The ***circularity problem*** thus arises from the fact that on the one hand we resort to individual value scales and demand schedules in order to explain the formation of money prices on the market, while on the other hand every time a unit of money enters in an individual´s value scale it will do so in virtue of its marginal utility, that is its serviceability in exchange rather than in direct use, or purchasing power, which itself presupposes or depends upon an already given structure of money prices for the various goods. Mises argued that although the value of money today (in the sense of purchasing power or price on the market) depends upon today´s demand for money (today´s marginal utilities of money and of goods expressed in demand schedules), today´s demand (marginal utility) in turn depends, not on the value of money today, but on its value (purchasing power) ***yesterday***. The value of money yesterday serves as a proxy for today´s ***expected*** value. As we regress backwards in time, we must eventually arrive at the original point when people first began to use gold as a medium of exchange. On the ***first*** day on which people passed from the system of pure barter and began to use gold as a medium of

exchange, the money price, or rather, the gold price, of every other good depended partially on the marginal utility of gold.
See also Rothbard [2004] 268-76. According to most authors working in the Walrasian monetary tradition there really is no circularity.

[14] Could it not be objected that the question of whether a particular institution can possibly emerge as the outcome of a market-driven process or not, is irrelevant? This claim is overdrawn. From a theoretical perspective the question of which forces sustain a particular institutional phenomenon is obviously a relevant and interesting one. One reason for an interest in this sort of questions is in view of the (comparative) cost-benefit assessment of different institutional forms. If a particular institutional form is not self-sustaining, then attempts at nevertheless installing and sustaining it, for instance through some deliberate concerted effort by the government or a political authority, might come at a high cost (and even then prove ultimately impossible to sustain). Even if interaction patterns that are only sustainable (and sustained) by political mechanisms, deliberate intervention in the market etc., will often be more costly, this fact will not always be clearly perceived to the extent that political mechanisms will often tend to conceal some of the implied costs. Often the gains will be more visible - since particularized towards specific groups - than some of the costs - that may be spread over the population at large etc. Public choice analysis and the rent-seeking literature are of course particularly relevant in this context. The groups that benefit from particular interventions/regulations have an interest in concealing the necessary link between these interventions/regulations and their undesired/undesirable side effects and thus in influencing the very perception of both the nature of the problems that arise and their possible solutions.

[15] Yeager writes with respect to the Selgin-White proposal: “Still, such a system would have the disadvantage of a distinct base money and

the probable disadvantage of a unit defined by gold in particular."
(ibid. 258)

References

Angell, J.W. (1935), 'The 100 Per Cent Reserve Plan', *Quarterly Journal of Economics*, November: 1-35.

Barro, R. J. and David B. Gordon (1983a), 'Rules, Discretion and Reputation in a Model of Monetary Policy', *Journal of Monetary Economics,* 12: 101-121.

Barro, R. J. and David B. Gordon (1983b), 'A Positive Theory of Monetary Policy in a Natural Rate Model', *Journal of Political Economy*, 91: 589-610.

Becker, G. S. (2006), 'Free Banking', in: M. Laine and G. Hülsmann (eds.) (2006), 227-34.

Blinder, A. S. (1988), 'The Rules-versus-Discretion Debate in the Light of Recent Experience', in: Giersch, H. (ed.), 45-63.

Centi, J.-P. (2006), 'Des monnaies privées en concurrence: de l´utopie à la réalité', in M. Laine and G. Hülsmann (eds.) (2006), 235-250.

Coase, R. H. (1972), 'Durability and monopoly', *Journal of Law and Economics*, Vol. 15, 143-9.

Diamond, D. W. and Philip H. Dybvig (1983), 'Bank Runs, Deposit Insurance, and Liquidity', *Journal of Political Economy*, vol. 91: 401-19.

Dowd, K. (1996), *Competition and Finance – A Reinterpretation of Financial and Monetary Economics*, London: MacMillan Press.

Fisher, I. ([1935] 1997) *100% Money*, Volume 11 of The Works of Irving Fisher (ed. W.J. Barber), London: Pickering & Chatto.

Friedman, M. (1960), *A Program for Monetary Stability*, New York: Fordham University Press.

Friedman, M. and Anna J. Schwartz (1987), 'Has Governemt Any Role in Money ?', in: Leube K. R. (ed.) (1987), 499-525; reprinted from: *Journal of Monetary Economics* 17 (1986): 37-62.

Friedman, M. and Anna J. Schwartz (1993), *A Monetary History of the United States 1867-1960*, Princeton: Princeton University Press.

Gentier, A. (2006), 'Liberté monétaire et liberté bancaire : une synthèse', in: M. Laine and G. Hülsmann (eds.) (2006), 251-264.

Giersch, H. (ed.) (1988), *Macro and Micro Policies for More Growth and Emplyment – Symposium 1987 Institut für Weltwirtschaft an der Universität Kiel*, Tübingen: J.C.B. Mohr (Paul Siebeck).

Graham, F.D. (1936),'Partial Reserve Money and the 100 Per Cent Proposal', *American Economic Review*, September: 428-40.

Groenveld, K., J.A.H. Maks and J. Muysken (1990), *Economic Policy and the Market Process – Austrian and Mainstream Economics*, North-Holland: Elsevier Science Publishers.

Hart, A.G. (1935), 'The "Chicago Plan" of Banking Reform', *Review of Economic Studies*, 2:104-16.

Hoppe, H.-H. (2006), 'Against Fiduciary Media', now in: *The Economics and Ethics of Private Property*, Auburn: Ludwig von Mises Institute, 205-254.

Huerta de Soto, J. (2006a), *Money, Bank Credit, and Economic Cycles*, Auburn: Ludwig von Mises Institute.

Huerta de Soto, J. (2006b), 'A Note on the Crisis of Socialism', in: M. Laine and G. Hülsmann (eds.) (2006), 330-340.

Hülsmann, J. G. (2000), 'Economic Principles and Monetary Institutions – *Review Essay on The Theory of Monetary Institutions* by L. H. White', Journal des Économistes et des Études Humaines, Vol. 10, no. 2/3, 421-441.

Hülsmann, G. (2007), 'Pascal Salin: Gentleman, Economist, Radical', *The Ludwig von Mises Institute Daily Articles*, posted on 2/22/2007, Auburn.

Klein, B. (1974), 'The Competitive Supply of Money', *Journal of money, credit, and banking*, Vol. 6: 423-453.

Kydland, F. E. and Prescott, E. C. (1977), 'Rules Rather Than Discretion: The Inconsistency of Optimal Plans', *Journal of Political Economy*, 85: 473-91.

Laine M. and G. Hülsmann (2006), *L´Homme Libre – Mélanges en l´honneur de Pascal Salin – Festschrift in honour of Pascal Salin*, Paris: Les Belles Lettres, 529 pp.

Leube, K. R. (1987), *The Essence of Friedman*, Stanford: Hoover Institution Press.

McCallum B. T. (1988), 'The Case for Rules in the Conduct of Monetary Policy: A Concrete Example', in: Giersch, H. (ed.), 26-44.

Mises, L. von (1981), *The Theory of Money and Credit*, Indianapolis: Liberty*Classics*.

Mises, L. von (1998), *Human Action – A Treatise on Economics*, Auburn: Ludwig von Mises Institute.

Nataf, Ph. (2006), 'Paper Monies and Freedom', in Laine M. and G. Hülsmann (eds.) (2006), 265-273.

Obstfeld, M. and K. Rogoff (2002), *Foundations of International Macroeconomics*, London: The MIT Press.

Olson, M. (1971), *The Logic of Collective Action: Public Goods and the Theory of Groups*, Revised edition, Harvard University Press.

Oppers, S. E. (2002), 'The Austrian Theory of Business Cycles: Old Lessons for Modern Economic Policy?', in: (2003) *Austrian Economics Today I – Analyses, Ideas and Suggestions*, F. A. von Hayek Institut – Frankfurter Allgemeine Buch, 33-46.

Oudiz, G. (1988), 'Macroeconomic Policy Coordination: Where Should We Stand?', in Giersch, H. (ed.), 278-91.

Pigou, A.C. (1920), *The Economics of Welfare*, London: Macmillan.

Rothbard, M.N. (2004), *Man, Economy, and State*, Auburn: Ludwig von Mises Institute.

Salin, P. (1988a), 'Comment on McCallum (1988) and Blinder (1988)', in: Giersch, H. (ed.), 71-84.

Salin, P. (1988b), 'Comment on Gilles Oudiz (1988)', in : Giersch, H. (ed.), 292-295.

Salin, P. (1990a), 'Macro-Stabilization Policies and the Market Process', in Groenveld K. et al. (eds.) (1990), 201-221.

Salin, P. (1990b), *La vérité sur la monnaie*, Éditions Odile Jacob.

Selgin, G. (1996), *Bank Deregulation and Monetary Order*, London: Routledge.

Selgin, G. and L. H. White (1996), 'How Would the Invisible Hand Handle Money?', in: Selgin G. (1996), 15-56; reprinted from the *Journal of Economic Literature*, Vol. XXXII, No. 4 (December 1994).

Simons, H.C. (1936), 'Rules versus Authorities in Monetary Policy', ***Journal of Political Economy***, 44/1: 1-30.

Smith, V. C. (1990), ***The Rationale of Central Banking and the Free Banking Alternative***, Indianapolis: Liberty Fund.

van den Hauwe, L. (2006), 'The Uneasy Case for Fractional-Reserve Free Banking', Procesos de Mercado: Revista Europea de Economía Política, Volumen III, Número 2: 143-196.

White, L. H. (1999), ***The Theory of Monetary Institutions***, Oxford: Blackwell.

Yeager, L. B. (2001), 'The Perils of Base Money', ***The Review of Austrian Economics***, 14:4, 251-266.