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DEHOMOGENIZING MISES'S MONETARY THEORY

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Mises's contributions to monetary theory are so numerous that it is impossible to mention them with any claim to exhaustiveness. Mises provided the definitive clarification of money's nature, justified the threefold classification between production goods, consumption goods, and media of exchange, and thereby elucidated the relation between money and capital, and between money and welfare. His ontological classification of monetary objects into money and money titles is the most useful framework for analyzing monetary phenomena, and has proved successful in dealing with such issues as banking theory and history, business cycles, and monetary institutions. Mises managed to integrate monetary and value theories, exposed the logical inconsistency in the neutrality of money doctrine, and cleansed monetary thought of past errors.[1]

In the light of these achievements, Murray Rothbard wrote that the "Austrian theory of money virtually begins and ends with Ludwig von Mises's monumental *Theory of Money and Credit*, published in 1912."[2] However, Mises's advances, in particular in the area of the

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[1]For an overall presentation of Mises's monetary theory, see Joseph T. Salerno, "Ludwig von Mises's Monetary Theory in Light of Modern Monetary Thought," *Review of Austrian Economics* 8, no. 1 (1994).

[2]Murray N. Rothbard, "The Austrian Theory of Money," in *The Foundations of Modern Austrian Economics*, ed. Edwin Dolan (Kansas City: Sheed Andrews and McMeel, 1976), p. 297. See also Ludwig von Mises, *Theory of Money and Credit*, trans. H.E. Baston (Indianapolis, Ind.: Liberty Classics, 1980).

integration of value and money theory, have been questioned uninterruptedly. John Hicks reckoned that a marginal utility theory of money "was tried by Mises, and led to the conclusion that money is a ghost of gold—because, so it appeared, money as such has no marginal utility."[3] After Don Patinkin unconditionally endorsed Hicks's view,[4] Laurence Moss found Mises's monetary theory unsatisfactory. In particular, Moss maintained that the *Theory of Money and Credit*

> lacks an acceptable methodological framework for analyzing monetary problems [and that Mises confused] the demand for money with the demand for the *services* provided by money.[5]

Thus, the question arises as to whether the Misesian theory of money is indeed as consistent and mature as Rothbard asserted.

This article suggests another interpretation, namely, that while Mises's monetary theory begins with his *Theory of Money and Credit*, it does not end there, but continues in *Human Action*.[6] Joseph Salerno has already pointed out some significant differences between Mises's thought in the *Theory of Money and Credit* and in *Human Action*, differences which provide important arguments in favor of Herbener's recent rebuttal of Selgin and White's attempts to "tie their modern free banking school to the views of Ludwig von Mises."[7] It is important to study these differences in Mises's theory of money as developed respectively in the *Theory of Money and Credit* and in *Human Action*.

This article contains two parts that correspond to the two main fields of monetary theory. The first part examines the evolution of

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[3]John Hicks, "A Suggestion for Simplifying the Theory of Money," *Economica* 2, no. 5 (1935), p. 2.

[4]Don Patinkin, *Money, Interest, and Prices: An Integration of Monetary and Value Theory*, 2nd ed. (New York: Harper & Row, 1965), p. 575.

[5]Laurence Moss, "The Monetary Economics of Ludwig von Mises," in *The Economics of Ludwig von Mises: Toward a Critical Reappraisal* (Kansas City: Sheed and Ward, 1976), p. 14, emphasis in original.

[6]Ludwig von Mises, *Human Action*, scholar's ed. (Auburn, Ala.: Ludwig von Mises Institute, 1998).

[7]Joseph T. Salerno, "Mises and Hayek Dehomogenized," *Review of Austrian Economics* 6, no. 2 (1993), pp. 139–44; George Selgin, "In Defense of Fiduciary Media—or, We are *Not* Devo(lutionists), We are Misesians!" with Lawrence White, *Review of Austrian Economics* 9, no. 2 (1996); and Jeffrey Herbener, "Ludwig von Mises on the Gold Standard and Free Banking," *Quarterly Journal of Austrian Economics* 5, no.1 (2002), pp. 67, 89–91.

Mises's analysis of the value of money, and the second part investigates developments in his banking theory. Both parts include three sections: the first identifies and appraises some problematic conclusions in the *Theory of Money and Credit*, while the second presents Mises's treatment of the same issues in *Human Action*. Finally, in light of this comparative analysis, elucidating those spheres of Mises's theory that have been the object of criticisms or of claims to appurtenance, each part's third section evaluates these criticisms and claims.

MISES'S VALUE THEORY OF MONEY

An explanation of the value of money, i.e., of why people hold money, is the most essential part of any monetary theory; otherwise, the very reality of the subject under consideration remains arguable. The difficulty of the problem stems from the requirement, for the sake of consistency, to apply to the medium of exchange—which has a particular position among goods—the same analytical tools as are used in the investigation of the value of other commodities. The question of how Mises copes with this difficulty is particularly interesting, since, in the first part of his *Theory of Money and Credit*, he builds his own theory of value.[8] Our discussion of Mises's analysis of the value of money will show that his earlier work, which is based on a value imputation assumption, does not respect the basic findings of his general value theory.

The Objectivist Paradigm of Money's Exchange Value

In his *Theory of Money and Credit*, when he first approaches the question of the value of money, Mises utters a puzzling statement:

> The laws which govern the value of money are different from those which govern the value of production goods and from those which govern the value of consumption goods. All that these have in common is their general underlying principle, the fundamental economic law of value.[9]

The meaning of this assertion becomes perfectly clear when one understands that the sole difference Mises has in mind is that an additional

[8]On Mises's value theory, see Jörg Guido Hülsmann, introduction to *Epistemological Problems of Economics*, by Ludwig von Mises, 3rd ed. (Auburn, Ala.: Ludwig von Mises Institute, 2003).

[9]Mises, *Theory of Money and Credit*, p. 102.

quantity of money, as opposed to an additional quantity of production or consumption goods, does not increase the welfare of the members of a society. This is so because

> changes in the value of money are accommodated in such a way to the demand for it that, despite increases or decreases in its quantity, the economic position of mankind remains the same.[10]

However, this latter statement may still be no less puzzling, since its validity requires that judgments of value on money holdings are not dependent on the available quantity of money. This is, indeed, the position that Mises embraces in the *Theory of Money and Credit*, when he writes: "Money has no utility other than that arising from the possibility of obtaining other economic goods in exchange for it."[11] One can also interpret the following statement in the same light: "In fact, the conditions of demand for money, including the demand for storage purposes, is independent of the circumstances of the supply of money."[12]

Mises, in his analysis of the determination of the objective exchange value of money, begins by observing that the peculiarity of money consists in that its subjective use value and subjective exchange value "coincide."[13] Furthermore:

> The subjective value of money always depends on the subjective value of the other economic goods that can be obtained in exchange for it. Its subjective value is in fact a derived concept.[14]

Mises, following uncritically the research path opened by Friedrich Wieser, whom he quotes, sums up a few pages later: "The subjective value of money must be *measured* by the marginal utility of the goods for which the money can be exchanged."[15] Then, quite logically, if money has no marginal utility of its own, the community's welfare cannot be increased by an additional amount of money.

Mises's attitude as to the nature of money's subjective value is highly problematic. If the latter is a derived concept, this implies that quantities of money are not subject to independent valuation at all. In

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[10]Mises, *Theory of Money and Credit*, p. 102.

[11]Mises, *Theory of Money and Credit*, p. 118.

[12]Mises, *Theory of Money and Credit*, p. 171.

[13]Mises, *Theory of Money and Credit*, p. 118.

[14]Mises, *Theory of Money and Credit*, p. 119.

[15]Mises, *Theory of Money and Credit*, p. 130, emphasis added.

other words, money must not be an independent good, and this is already in contradiction with Mises's previous discussions in his *Theory of Money and Credit*, and especially with this lucid comment:

> In fact, the exchange value of money is determined in a totally different way from that of a certificate or warrant. Titles like these are not susceptible of an independent process of valuation at all.[16]

But if money was not an independent good, how could one explain why people would keep a store of money at all? How could a medium of exchange ever begin to be used if individuals do not value a quantity of it for its own sake, but only for the quantities of other goods it can buy? It may well be that Mises denied independent subjective value to money because of an overstatement of this initially true insight on which basis is built his famous regression theorem: "but for money to have use-value, the existence of exchange value is essential."[17] There is no reason, however, to go a step further and to suppose additionally that money's subjective use-value "coincides" with its objective exchange value, an assumption which presupposes some kind of *value imputation* from goods obtained in exchange against money to the respective quantity of money itself.

Here, Mises contradicts his own value theory in the first part of the *Theory of Money and Credit*, partially established as a critique of Böhm-Bawerk's contribution. The crucial point Mises emphasizes is that one cannot infer any cardinal ratio between values attached to different stocks of commodities, because "[a]cts of valuation are not susceptible of any kind of measurement."[18] But this conclusion—derived from the nature of value itself conceived "as the significance attributed to individual commodity units by a human being who wishes to consume or otherwise dispose of various commodities to the best advantage"—precludes already any value imputation, since the latter presupposes that a unitary ratio of values can be established.[19]

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[16]Mises, *Theory of Money and Credit*, p. 110; see also pp. 95–102.

[17]Mises, *Theory of Money and Credit*, p. 118.

[18]Mises, *Theory of Money and Credit*, p. 52.

[19]Mises, *Theory of Money and Credit*, p. 51. Notice that none of this is inconsistent with the statement Mises often makes that the marginal utility of money is decreasing. Since the marginal utility itself of the goods that are acquired with the additional quantity of money is decreasing, so is the "derived utility" of money. See, in particular, Mises, *Theory of Money and Credit*, pp. 161, 164–65.

Generally speaking, in the *Theory of Money and Credit*, Mises somehow overemphasizes the concept of objective exchange value of money, while simultaneously eluding the importance of subjective value judgments for the determination of money's purchasing power. This overemphasis pushes Mises to make some statements that raise the question of whether he did not actually adopt a highly mechanical version of the "real balances approach." In two places, Mises implies that what individuals demand is a store of purchasing power, which, by the way, quite surprisingly, is not denied independent subjective valuation:

> The store of purchasing power held by two such agents whose objective economic circumstances were identical might be quite different if the advantages and disadvantages of such a store were estimated differently by the different agents.[20]

Notice that Mises is not saying that individuals hold units of money with consideration to their purchasing power, but that they hold a "store of purchasing power." In other words, people are not viewed as holding money balances and adjusting these holdings according to their purchasing power, but as holding directly "real balances." But if the individual demand for money is a demand for real cash balances in this sense, then it is impossible to speak meaningfully of the demand for money of the entire community, since every individual appraises his cash balances in real terms according to a different array of commodities. In other words, no aggregate money relation for the entire community can be established at all if the fundamental analytical concept at the individual level is the demand for real cash balances.[21]

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[20]Mises, *Theory of Money and Credit*, p. 154. See also p. 157, where Mises explains how an individual reaches "the desired level of reserve purchasing power" when he regards "his reserve of purchasing power" as too large or too small. We can but adhere to Mises's economic reasoning, but the language in which he presents it implies nevertheless that individuals express a demand for real balances, and not for nominal cash balances. Notice also that Mises's rebuttal of the doctrine according to which "[i]f the objective exchange value of money falls, then the demand for money must necessarily increase" is not incompatible with this real balances approach, once real balances are deemed as subjectively valued. Mises, *Theory of Money and Credit*, p. 188.

[21]Mises's value theory itself poses another challenge to this particular "real balances approach" to the demand for money. "Real balances" do not exist

A similar line of questioning is raised in another passage, discussing the phenomenon of hyper-inflation:

> Now if every individual, even if his circumstances are otherwise unchanged, no longer wishes to maintain his cash holding at the same level as before the beginning of the inflation, the demand for money in the whole community, which can only be the sum of the individuals' demands, decreases too.[22]

If demand for money is to be understood as demand for nominal cash balances, then clearly the total demand in the community cannot decrease without the physical destruction of monetary units, which is excluded by definition from a hyper-inflationist scenario. If, on the contrary, the relevant concept here is the demand for real balances, which can indeed decrease while the nominal quantity of money increases, then the above-mentioned problem of aggregation of individual demands steps in. In all circumstances, we are forced to acknowledge some problems in Mises's presentation.

A final critical issue we are able to identify concerns the conceptual framework itself in which the equilibrium between the demand for and supply of money is analyzed. Mises systematically considers that not only the demand for money, but also its supply is affected by money's purchasing power:

> The demand for money and the supply of it are thus influenced by the value of money in the past; but they in their turn modify this value until they are brought into equilibrium.[23]

In this highly holistic presentation of the monetary equilibrium, if the supply of money is itself influenced by the value of money, it may

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in the real world, because there is no such thing as "real money," distinct from money itself. Therefore, "real balances" could hardly be subject to a process of valuation, which deals always and only with definite quantities of commodities. The conclusion that "[t]here is no such thing as an abstract value" discards already the "real balances approach" to the determination of the value of money. Mises, *Theory of Money and Credit*, p. 60.

[22]Mises, *Theory of Money and Credit*, p. 260. An almost identical statement as part of a discussion on the same issue appears in Mises's 1923 essay "Stabilization of the Monetary Unit, From the View Point of Theory," in *On the Manipulation of Money and Credit*, ed. Percy L. Greaves (Dobbs Ferry, N.Y.: Free Market Books, 1978), p. 11.

[23]Mises, *Theory of Money and Credit*, p. 136.

mean but one of two things: 1) either "supply of money" signifies the "supply of a stock of real cash balances" or 2) "supply of money" is to be understood as the current flow of money that people offer on the market in exchange for commodities. This problem is recurrent, as he also writes:

> The intensity with which supply and demand are expressed, and consequently the level of the exchange ratio at which both coincide, depends on the subjective valuations of individuals. This is true, not only of the direct exchange ratios between economic goods other than money, but also of the exchange ratio between money on the one hand and commodities on the other.[24]

Later in the discussion, Mises makes it clear that, by demand for money, he understands a desired store of money, and this privileges the first from the above-mentioned alternative interpretations. Again, though, the insolvable aggregation problem of stores of money appraised according to different arrays of goods will make it impossible to construct a meaningful concept of total supply of money, a concept to which Mises often refers.

In conclusion, in the *Theory of Money and Credit*, Mises builds his value analysis in quite problematic terms. Insofar as money *qua* independent good is excluded from the process of subjective valuation, the whole project of integrating value and money theory should be declared abortive. In regard to objective exchange value, inconsistencies make it difficult even to recognize the actual analytical framework adopted by Mises. It may very well be that those problems, which all stem from an insufficient account of individual action, are exclusively related to the approach Mises chose in analyzing the issue of the value of money, namely, in terms of use and exchange value.

As I shall now try to show, none of the problems from the *Theory of Money and Credit* arise when Mises later deals with the same subject in *Human Action*. He uses a completely different analytical approach that, additionally, allows him to give a deeper account of the impact of expectations on the purchasing power of money.

The Subjectivist Paradigm of Money's Services

From the very beginning of *Human Action*, the analysis is cast in terms of demand for and supply of money. Demand for money is to

[24]Mises, *Theory of Money and Credit*, p. 153.

be understood as a demand for nominal cash holdings, as a desired store of a given quantity of units of the medium of exchange: "Nobody ever keeps more money than he wants to have as cash holdings."[25] And it is this demand—"a subjective element whose intensity is entirely determined by value judgments"—that is the key concept in Mises's new treatment of the question of the value of money, which now very clearly comprises the two separate issues of valuation and appraisement.[26]

As far as the question of the appraisement of money is concerned, Mises, quite logically, has very few things to say:

> But it does not alter the fact that the appraisement of money is to be explained in the same way as the appraisement of all other goods: by the demand on the part of those who are eager to acquire a definite quantity of it.[27]

The economist should deal with money as with any other good, because money is like any other good:

> With money, things are not different from what they are with regard to all other goods and services. The demand for money is determined by the conduct of people intent upon acquiring it for their cash holding.[28]

Thus, the analysis of the market value of money becomes enclosed in the study of the demand for money. Why is there a demand for a medium of exchange that can be neither consumed nor used in production? What are the factors that influence it? The answers that Mises gives to these essentialist questions bestow upon his monetary analysis in *Human Action* a consistency it does not have in the *Theory of Money and Credit*.

A demand for money exists because money is the only good to provide very specific services valued by individuals, namely, the services of a medium of exchange. Consider the following statements: "There exists a demand for media of exchange because people want to keep a store of them." And: "Its amount is determined by a deliberate demand for cash."[29] That money does not satisfy consumptive or productive goals does not impair in the least its ability to supply its own

[25]Mises, *Human Action*, p. 401.

[26]Mises, *Human Action*, p. 397.

[27]Mises, *Human Action*, p. 400.

[28]Mises, *Human Action*, p. 401.

[29]Mises, *Human Action*, p. 399.

—monetary—services, on which account precisely there is a demand for it.

> [Money] is necessarily an economic good and as such it is valued and appraised on *its own merits*, i.e., the services which a man *expects* from holding cash.[30]

Mises first emphasizes the importance of the monetary services for understanding the concept of demand for money and for successfully integrating value and money theory in "The Position of Money among Economic Goods." In that article, he writes: "All of those who denied the ability of the services of money to determine its exchange value failed to recognize that the only decisive element is demand."[31]

In the next section of Mises's article, we read an important comment that justifies the concept of the demand for money as a demand for a given stock:

> The service of money is not confined to transactions. It fulfills its task not only at the moment it passes from one hand to the next. It also performs services when it rests in the till, as the most marketable good, in anticipation of its future use in trade as a generally used means of exchange.[32]

The crucial point is that, in all circumstances, individuals' valuations of the *prospective* monetary services determine the height of their demand for media of exchange.[33] This demand for media of exchange, in relation to the supply of money, gives rise to the purchasing power of money. After making the additional claim that "the services money renders are conditioned by the height of its purchasing power," Mises

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[30]Mises, *Human Action*, p. 415, emphasis added.

[31]Ludwig von Mises, "The Position of Money among Economic Goods," in *Money, Method, and the Market Process: Essays by Ludwig von Mises*, ed. Richard Ebeling (Norwell, Mass.: Kluwer Academic Publishers, 1990), p. 58. This article was written in 1926 and published in 1932. I thank Guido Hülsmann for pointing out the time lapse between this article's conception and its publication.

[32]Mises, "The Position of Money among Economic Goods," p. 61.

[33]Mises has already touched upon the issue of expectations in the *Theory of Money and Credit*, although in a rather unsystematic manner and almost exclusively with regard to the development of a hyper-inflationist spiral. Notice, in particular, that there he also casts doubts upon the individuals' ability to correctly forecast changes in the purchasing power of money: "It is never possible to foresee the extent of monetary depreciation." Mises, *Theory of Money and Credit,* p. 252.

is able to derive a fundamental monetary law and to definitively show the role played by objective factors in the determination of the purchasing power of money.[34]

Although individuals hold a definite number of units of media of exchange, they do not demand them for their own sake, but for the services they expect to receive from them. Since money is held in order to be given away, these services are not independent from its purchasing power. But to say this already implies that there can never be an insufficiency or an excess of monetary services for one individual, or for the economy as a whole. For a man who desires a greater amount of monetary services can just decrease his purchases and increase his sales, thereby provoking a change in the purchasing power of money which, by alteration of the services the same monetary unit renders, ensures that he can attain his end. The variability of money prices on the market ensures that, at any moment, any individual enjoys the amount of money services he aims at, insofar as the extent of his property permits it. In short, says Mises: "The quantity of money available in the whole economy is always sufficient to secure for everybody all that money does and can do."[35]

Compare the irrefutable truth of this law, deduced within the context of an equilibrium analysis, with the looser statement, open to the critique of aggregation, from the *Theory of Money and Credit*, that an additional quantity of money does not increase the welfare of the community, or to the unproved early assertion that:

> The levels of the total stock of money and of the value of the money unit are matters of complete indifference as far as the utility obtained from the use of the money is concerned. Society is always in enjoyment of the maximum utility obtainable form the use of money.[36]

Already in 1940, Mises had come very close to the law presented in *Human Action*:

> The service which money renders to the economic community is independent of the amount of money. Whether the absolute amount of money in a closed economic system is large or small does not matter.[37]

[34]Mises, *Human Action*, p. 418.

[35]Mises, *Human Action*, p. 418.

[36]Mises, *Theory of Money and Credit*, p. 165.

[37]Ludwig von Mises, *Interventionism: An Economic Analysis* (Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1998), p. 35.

But the precursor of this law, quite surprisingly, can be found already in the above-cited essay from 1923: "There can never be too much, nor too little gold, to serve the purpose of money. Supply and demand are brought into equilibrium by the formation of prices."[38]

As far as the role of objective factors in determining money's purchasing power is concerned, Mises in *Human Action* no longer maintains that the case of money is different from that of other commodities. In the *Theory of Money and Credit*, he contends that the task of the economist, when dealing with money, only begins where it leaves the case of other commodities, i.e., "at the point of tracing the objective determinants of its subjective value."[39] In *Human Action*, Mises makes clear that the search for the advantages and disadvantages from holding cash balances cannot provide any objective factors elucidating the determination of money's price, because, in all cases:

> They are put on the scales by each individual and weighed against one another. The result is a subjective judgment of value, colored by the individual's personality.[40]

When Mises asserts that the "basis of all judgments concerning money is its purchasing power as it was in the immediate past," he is not making a statement specific to money.[41] In the case of money, the connection between valuation and past prices through the process of appraisement is not different from what happens in the case of all other commodities. In a market economy, where value preferences take into account not only direct use values but also exchange values, no one can value commodities in total disregard for the structure of prices as he appraises it. And past prices are a basis for anticipating future prices, whatever the commodity under consideration. Thus, valuation is based upon appraisement, which in turn requires a familiarity with prices from the immediate past:

> It is necessary by and large to be familiar with the prices of those goods which one would like to acquire and to form

[38]Mises, *On the Manipulation of Money and Credit*, p. 27. Mises's welfare statement from the *Theory of Money and Credit*, consistently reformulated as the impossibility of monetary policy to ever alleviate scarcity, has received a recent proof in Jörg Guido Hülsmann, "Optimal Monetary Policy," *Quarterly Journal of Austrian Economics* 6, no. 4 (2003).

[39]Mises, *Theory of Money and Credit*, p. 119.

[40]Mises, *Human Action*, p. 427.

[41]Mises, *Human Action*, p. 423.

> on the ground of such knowledge an opinion about their future prices. . . . The valuation makes a detour, it goes via the appraisement of the structure of market prices.[42]

Thus, Mises's later, more systematic, discussion of the importance of expectations and past prices for the determination of money's purchasing power is wholly integrated within his general theory of prices.

In light of the last paragraphs, it becomes clear that Mises's regression theorem, as developed in *Human Action*, should not be interpreted as containing a rigid determination of the present-day purchasing power of money on the basis of its past purchasing power. It is true that Mises emphasizes that a present-day valuation of money is *possible* only if the thing that is money has been appraised in the past *qua* money or another kind of good.[43] However, notice also that he puts an equal emphasis on the fact that the present-day purchasing power of money is determined by the *actual valuations*, which are influenced by the appraisement of money's future purchasing power. Thus, the regression theorem only gives the necessary, and by far insufficient, past-dependent condition for the existence of a present-day purchasing power of money, but leaves its concrete determination entirely to subjective future-oriented valuations.

In *Human Action*, Mises builds a consistent subjectivist analysis of money's value that applies to money the same analytical tools as used in the analysis of all other goods. Mises goes even further when he states that there is no way to approach the problem of the determination of money's purchasing power other than in terms of cash holdings, and the demand for and supply of money.[44] With all those conclusions in mind, we are now able to consider the criticisms that Mises's value theory of money has received.

Criticism of Critiques

Hicks's brief criticism of Mises's attempt to apply value theory based on marginal utility to money is roughly correct, but only insofar as it applies to the Mises of the *Theory of Money and Credit*. However, in Mises's early presentation, money is not really "a ghost of gold." It appears rather to be a ghost of all other goods against which it may be exchanged, since it is from them—and not from the commodity

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[42]Mises, *Human Action*, p. 329.

[43]On this point, see Mises, *Human Action*, p. 408.

[44]Mises, *Human Action*, p. 427.

which first became a medium of exchange, as Hicks seems to imply —that its utility is continuously derived.

Patinkin's first attack on Mises's monetary theory builds on Hicks's criticism. But we can hardly concede Patinkin the argument since *Human Action* had been already published, and, as I have shown above, Mises developed a coherent subjectivist approach to money's value. However, Patinkin made two additional important critiques which we must analyze while keeping in mind that they refer exclusively to the *Theory of Money and Credit*.

In his second criticism, Patinkin disparages Mises for holding an extreme, and invalid, position when asserting that even an equiproportional increase of all individuals' cash holdings could not logically lead to a proportional increase of all prices.[45] Patinkin does not even venture an explanation of the presumed invalidity of Mises's argument that such an increase will necessarily cause an alteration in the conditions of demand, and therefore a non-uniform rise in prices. Let us just make it clear here that Mises's crucial insight—that changes in the supply of money always introduce a dynamic factor—is valid despite Mises's initial contention from the *Theory of Money and Credit* that money has no subjective utility of its own. Even if we do not follow Mises in his perfected version of his monetary theory—just for the sake of argument—since individual preferences in regard to commodities must not be identical, lest exchange should never exist, an equiproportional change in individuals' money holdings must alter the configuration of market demands. Thus, Patinkin could not even use Mises's initial weakness to rationalize his unjustified contention.

Patinkin's third criticism misrepresents Mises's thought. To dissipate any doubt, let us quote Patinkin: "[Mises alleges] that the validity of the quantity theory depends on just this assumption"—that the doubling of nominal balances demanded, prices constant, is accompanied by the halving of the marginal utility of a dollar held in these balances.[46] Later, he writes:

> We might further note that this argument [from Chapter V:8] also shows the incorrectness of Mises's contention that the quantity theory presupposes an inverse relationship between the quantity of money and its marginal utility.[47]

[45]See Patinkin, *Money, Interest, and Prices*, p. 164n.

[46]Patinkin, *Money, Interest, and Prices*, p. 95n.

[47]Patinkin, *Money, Interest, and Prices*, p. 575.

But did Mises ever hold the view that the validity of the quantity theory of money, in its strict proportional version, depends on the validity of this assumption? Mises did not, and he could not, especially in the *Theory of Money and Credit*, where he erroneously contended that money has no marginal utility of its own. Therefore, he could but conclude that the utility of any stock of money is the same, provided the stock of consumer and producer goods does not change. Thus, he could not criticize the truth of this assumption.

What Mises actually says, and Patinkin misrepresents, is that this assumption, *even if correct*, does not allow the quantity theorists to derive their proportionality credo:

> The initial assumption in the arguments of those who maintain the theory that changes in the quantity of money have a proportionate effect on the purchasing power of money is the proposition that if the value of the monetary unit were doubled, half of the stock of money at the disposal of the community would yield the same utility as that previously yielded by the whole stock. *The correctness of this proposition is not disputed*; nevertheless, it does not prove what it is meant to prove.[48]

Thus, we may conclude that all of Patinkin's criticisms completely miss their target.

Let us add here, for the sake of completeness, that had Mises applied his general theory of value to the case of money, he would have denied the validity of this assumption, as is clear from this critical passage on Fisher's value theory:

> He evidently thinks it possible to conclude from this that the utility of β is twice as great as that of $\beta/2$. . . . In fact, even with an unchanged supply, the marginal utility of several units taken together is not equal to the marginal utility of one unit multiplied by the number of units.[49]

The case is not identical with Moss's instructive critical comments of Mises's monetary economics, but Moss, like Patinkin, engages in a misrepresentation, reducing Mises's entire monetary thought to his *Theory of Money and Credit* only:

> With these exceptions and another regarding his theory of interest, Mises did not alter his position or significantly

[48]Mises, *Theory of Money and Credit*, p. 165, emphasis added.

[49]Mises, *Theory of Money and Credit*, pp. 56–57.

> change his formulation of any of the main topics discussed in this paper, so that his entire monetary economics was essentially intact in the 1912 volume.[50]

The substance of Moss's criticism is that:

> By confusing the demand for money with the demand for the services provided by money, Mises was forced to modify one of the basic tenets of the Austrian position, [namely that] the market process is "forward looking" and not imprisoned by the past.[51]

There is, indeed, such a regression in Mises's thought from the *Theory of Money and Credit*, but Moss's suggestion that Mises never had recourse to applying marginal utility theory to money services has to be discarded in the light of our discussion. In *Human Action*, Mises accomplished much more than Moss implies he never did: namely, he integrated the determination of money's purchasing power to the general theory of prices that he himself perfected.

Despite Moss's merit to identify the really problematic issues in the *Theory of Money and Credit*, two of his contentions should be noted, for they deform Mises's thought as expounded in his first book. First, Moss alleges that "the introduction of 'real balances' as a factor in the utility function is quite congenial to the spirit of Mises's analysis."[52] Actually, the contrary statement would be true. Not only is a utility function not congenial to Mises's value theory, but a "real balances" approach is also inconsistent, as we showed above, with an analytic framework which purports to use meaningfully the aggregate concepts of total demand and total supply.

Second, when dealing with the proportionality theorem, Moss advances this claim:

> Mises dismissed this possibility [the marginal utility schedule of the money commodity must be a rectangular hyperbola] by stating that it is an "absurdity" to assume that for each individual, a doubling of money leads to a halving of the exchange value he ascribes to each unit.[53]

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[50]Moss, "The Monetary Economics of Ludwig von Mises," p. 41. The "exception" that Moss has in mind is the elaboration upon the "crack-up boom" and the hyper-inflationist spiral in the essays published in Mises, *On the Manipulation of Money and Credit*.

[51]Moss, "The Monetary Economics of Ludwig von Mises," p. 14; also p. 17.

[52]Moss, "The Monetary Economics of Ludwig von Mises," p. 22.

[53]Moss, "The Monetary Economics of Ludwig von Mises," p. 32.

But we already showed above that Mises never maintained that this assumption was an "absurdity," a term that, quite significantly, Moss quotes from Patinkin, not from Mises. Not only did Mises *not* "fail to realize . . . that this allegedly absurd assumption is implicit in his own account of the demand for money,"[54] but he logically concluded in the *Theory of Money and Credit* that this proposition is not essential either to the validity of the mechanical quantity theory of money, nor to the validity of his criticism of it.[55]

Our discussion of the criticisms of Mises's monetary theory shows clearly that the criticisms are exclusively of the *Theory of Money and Credit*, and that not all critiques managed to identify the problematic issues. Mainstream economists remain unacquainted with Mises's monetary theory from *Human Action*, where the problem of integrating money and value theory is successfully solved. What the evolution of Mises's monetary thought unquestionably teaches us is that this integration, which is the very cornerstone of the mainstream research program in monetary economics, requires a subjectivist approach to the services rendered by money balances which applies the same realistic price theory to all commodities, money included. The critics' exclusive focus on the *Theory of Money and Credit* and their complete neglect of *Human Action* prevented them from perceiving this most important conclusion.

Let us now investigate whether an equally noteworthy evolution of Mises's thought occurred in the sphere of banking theory, too.

THE ECONOMICS OF FIDUCIARY MEDIA

The category of media of exchange comprises not only money proper, but also money substitutes, i.e., perfectly redeemable claims on money. Fiduciary media, in Mises's language, are the part of money substitutes that are issued beyond the amount of monetary certificates, the latter alone being covered entirely by money proper. While monetary certificates are engendered through a voluntary deposit of money with a bank, fiduciary media are deliberately created by a credit-issuing bank in the process of granting circulation credit. Circulation credit, as opposed to commodity credit, consists in "credit transactions . . . characterized by the fact that in them the gain of the party who receives

[54]Moss, "The Monetary Economics of Ludwig von Mises," p. 32.

[55]See Mises, *Theory of Money and Credit*, pp. 165–74.

before he pays is balanced by no sacrifice on the part of the other party."[56] Therefore, fiduciary media are created "out of nothing."[57] Mises's fundamental insight is that there can be no understanding of banking and of its impact on the economy without a properly detailed study of fiduciary media. Thus, he dedicates the last one-third of the *Theory of Money and Credit* to the question of the characteristics and the way of issuance of fiduciary media.

Advantages and Limitations of Issuance

An organized banking system offering money substitutes presents obvious advantages: the wear and tear of money is avoided, the cost of transporting commodity money is saved, and the monetary unit becomes conveniently divisible. But Mises sees also *particular* advantages specific to the *nature* of fiduciary media, on which he puts great emphasis in the *Theory of Money and Credit*. All those specific advantages are based on the finding that a commodity standard is costly in the sense that it involves real expenses and sacrifices which are not essential to the functioning of a monetary economy, and which could be avoided precisely through the use of fiduciary media. The most essential part of Mises's argument in the *Theory of Money and Credit* is that the progress of the division of labor implies an increased demand for media of exchange, which would impose some disadvantages on the community and disturb the economy if only commodity money was used. Let us now examine those costs and possible disturbances in greater detail.

First of all, there is the costly disadvantage of using as money only a physical stuff which has to be originally produced:

> The modern organization of the clearing system and the institution of fiduciary media have made commerce independent of the volume and weight of the monetary material.[58]

Therefore, there is an additional important advantage in fiduciary media, because they ease transactions on the market. So highly is this advantage estimated by Mises that he asserts:

> The fact that money continued to be in actual circulation at all in a series of states, like Germany and England, and

[56]Mises, *Theory of Money and Credit*, p. 287.

[57]Mises, *Theory of Money and Credit*, p. 341.

[58]Mises, *Theory of Money and Credit*, p. 120.

> was not entirely superseded by fiduciary media and money certificates, was due solely to legislative intervention.[59]

For the same reasons, Mises implicitly supports the replacement of central banks' reserves of money proper, which he qualifies as merely "costly," by foreign bills; he also expresses quite a favorable opinion on the constitution of an international producer of fiduciary media.[60] But it must be recognized that Mises is overstating the usefulness of fiduciary media. Those otherwise undeniable advantages are *general* to money substitutes; they are not *specific* to fiduciary media. Therefore, this first cost-reducing and transactions-easing quality must be denied as a characteristic of fiduciary media *per se*.

Second, historically, fiduciary media, because they increased the supply of money in the broader sense, prevented the "tremendous increase in the exchange value of money, which otherwise would have occurred as a consequence of the extension of the use of money."[61] Thus:

> Fiduciary media has made it possible to avoid the convulsions that would be involved in an increase in the objective exchange value of money, and reduced the cost of the monetary apparatus.[62]

If there were no fiduciary media to accommodate an increase in the demand for money,

> the welfare of the community would have suffered. The increase in the stock of precious metals which serve monetary purposes would not have improved the position of the individual members of the community, would not have increased the satisfaction of their wants; for the monetary function could also have been fulfilled by a smaller stock.[63]

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[59]Mises, *Theory of Money and Credit*, p. 321.

[60]See Mises, *Theory of Money and Credit*, pp. 375, 325–29. Generally speaking, in his *Theory of Money and Credit*, Mises favors a policy of unification of the monetary unit: "For it is quite certain that even if a motive had not been provided by the unequal marketability of the goods used as media of exchange, unification would still have seemed a desirable aim for monetary policy." Mises, *Theory of Money and Credit*, p. 46.

[61]Mises, *Theory of Money and Credit*, p. 333.

[62]Mises, *Theory of Money and Credit*, p. 359.

[63]Mises, *Theory of Money and Credit*, p. 333.

A similar argument appears in favor of increasing the stock of credit or fiat money:

> An increase in the amount of fiat or credit money is only to be regarded as an increase in the stock of goods at the disposal of society if it permits the satisfaction of a demand for money which would otherwise have been satisfied by commodity money instead, since the material for the commodity money would then have had to be procured by the surrender of other goods in exchange or produced at the cost of renouncing some other sort of production.[64]

Now, Mises here is quite consistent since, in the *Theory of Money and Credit*, as we have already shown, he did not consider that money has utility of its own. But in the light of his later developments from *Human Action*, we must recognize that this welfare argument, even in the limited historical perspective in which Mises seems to use it, not only does not apply, but also cannot even be meaningfully made. To hold cash is a deliberate human choice, and it is vain to lament that human choice, by virtue of what it is, has a cost. Whenever people choose to increase their commodity money holdings, they demonstrate that they value this alternative relatively more than all others available to them *under the conditions of action at the moment of choosing*. There is no meaningful sense in which one can deem this choice as more costly, less costly, or equally costly than some other choice which would have been realized under different conditions of action.

It is precisely this kind of comparison—between a choice in a world with no fiduciary media and another, presumably the same, choice in a world with fiduciary media—which Mises is using in his *Theory of Money and Credit* as a basis for his welfare argument. We do not even need to discuss how, from two different production structures, something meaningful can be derived about welfare in order to consider Mises's earlier argument as unacceptable on the ground of his own general theory of action.

Third, a banking system issuing fiduciary media is beneficial for the accumulation of capital, and therefore for a general future increase in welfare. Mises presents two significantly different versions of this argument.

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[64]Mises, *Theory of Money and Credit*, p. 161.

He first notes that what a borrower demands is, of course, not money but capital. Without maintaining that fiduciary media *per se* have to be added to the capital at the disposition of the community, he claims that capital is created for the borrower:

> The cost of *creating capital* for borrowers of loans granted in fiduciary media is borne by those who are injured by the consequent variation in the objective exchange value of money.[65]

Now, we must acknowledge, following Mises on this point, that fiduciary media do not create capital *per se*, but only *displace* existing capital from previous owners to their borrowers, injuring additionally some members in the community through the variation of the purchasing power of money. Mises himself emphasized precisely those alterations in the disposition of property in order to prove the absence of any systematic relation between changes in the supply of money and the interest rate.

In this light, later in the book, he presents the second, amended, version of this argument:

> An increase in the stock of money in the broader sense caused by an issue of fiduciary media means a displacement of the social distribution of property in favor of the issuer. If the fiduciary media are issued by the banks, then the displacement is particularly favorable to the accumulation of capital, for in such a case the issuing body employs the additional wealth that it receives solely for productive purposes, whether directly by initiating and carrying through a process of production or indirectly by lending to producers.[66]

But what is Mises's rationale for considering that the banker or borrower will *systematically* use the displaced property in a more productive way, whether in physical or in value terms, than its previous owner?

Throughout the *Theory of Money and Credit*, Mises exhibits a favorable assessment of the *nature* of fiduciary media, and of their essentialist characteristics, which he considers advantageous on several grounds we can barely accept even on the basis of his own later thought. But Mises raises a second question of import, namely, what factors limit the issuing of fiduciary media, and what are the effects

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[65]Mises, *Theory of Money and Credit*, p. 349, emphasis added.

[66]Mises, *Theory of Money and Credit*, p. 388.

of these issuances on the economy? The answers he provides on the question of the limitation of the issue of fiduciary media will push him to significantly qualify, already in the *Theory of Money and Credit*, his general appraisal of this kind of money substitutes.

Mises first makes it very clear that the amount of circulation credit granted by the banks has no natural limits:

> Since the issuer creates the present good out of nothing, it would only be possible to speak of a natural limitation of the quantity of fiduciary media if the quantity of future goods that are exchanged in the loan market against present goods was limited to a fixed amount. But this is by no means the case.[67]

The crucial point, overlooked by the Banking School, is that by a deliberate human intervention—lowering the interest rate charged—the bankers can always place a bigger amount of credit: "The cause of fluctuations in the demand for credit of the banks-of-issue is to be sought nowhere else than in the credit policy they follow."[68] Consider also: "By reducing the rate of interest charged on loans, it is possible for the banks indefinitely to increase the public demand for credit."[69] From this, Mises concludes that the issuance of fiduciary media, which is carried out through granting of circulation credit, has no natural limits either. And because the reason for this lack of limitation lies in human intervention, only a counteracting human intervention can establish a limitation:

> The quantity of fiduciary media in circulation has no natural limits. If for any reason it is desired that it should be limited, then it must be limited by some sort of deliberate human intervention—that is, by banking policy.[70]

Consider also this passage: "There is, however, one idea that is expressed in all [banking policy rules]; the idea that the issue of fiduciary media needs to be limited by some kind of artificial restriction since it has no natural limits."[71] One of those rules that establish a limitation on the issue of fiduciary media is the granting of short-term loans.[72]

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[67]Mises, *Theory of Money and Credit*, p. 341.
[68]Mises, *Theory of Money and Credit*, p. 346.
[69]Mises, *Theory of Money and Credit*, p. 393.
[70]Mises, *Theory of Money and Credit*, p. 346.
[71]Mises, *Theory of Money and Credit*, p. 367.
[72]On this point, see Mises, *Theory of Money and Credit*, p. 372.

On the other side, although banks are enabled to put into circulation an indefinite amount of fiduciary media because the demand for circulation credit is itself unlimited, the demand to *hold* fiduciary media, which is limited because the demand for media of exchange is limited, restricts the amount of fiduciary media issued by an individual bank:

> Thus, in the circumstances assumed, it is not possible for a bank to issue more money substitutes than its customers can use; everything in excess of this must flow back to it.[73]

Although Mises does notice that competition between banks restricts the credit policy of each individual bank,[74] he applies this principle mostly to relations between the national central banks,[75] and, generally speaking, clings to the conclusion that there is no natural limit on the issuance of fiduciary media. For this reason precisely, and because credit-issuing banks could agree to parallel procedure, Mises builds his discussion of the business cycle on the assumption of indefinitely extended issues.[76]

However, one application of the "doctrine of crises" that Mises pioneered is that the issue of circulation credit has an ultimate limit, even though it is provided by the collapse of the banking system: "nevertheless, as has been shown, the moment must eventually come when no further extension of the circulation of fiduciary media is possible."[77]

Thus, in the *Theory of Money and Credit,* Mises does not come to a clear-cut answer whether there is a limitation on the issue of fiduciary media. He recognizes that competition between banks tends to impose such a limitation upon them, but does not consider this to be a case of principle: "Nevertheless, it is clear that banking freedom *per se* cannot be said to make a return to gross inflationary policy impossible."[78]

Quite consistently, then, Mises maintains throughout the *Theory of Money and Credit* that if the expansion of credit and inflation are

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[73]Mises, *Theory of Money and Credit*, p. 362.

[74]See in particular the discussion in Mises, *Theory of Money and Credit*, pp. 346–47.

[75]See the discussions in Mises, *Theory of Money and Credit*, pp. 364, 374.

[76]Mises, *Theory of Money and Credit*, pp. 396–97.

[77]Mises, *Theory of Money and Credit*, p. 404.

[78]Mises, *Theory of Money and Credit*, p. 436.

to be restricted lest they destroy the market economy, an artificially designed limitation is necessary:

> It will be a task for the future to erect safeguards against the inflationary misuses of the monetary system by the government and against the extension of the circulation of fiduciary media by the banks.[79]

Later, Mises will provide a significantly different appreciation of this issue, based on his more detailed study of the relation between free banking and credit expansion.

Free Banking and Credit Expansion

When dealing with the theory of fiduciary media in *Human Action*, Mises is essentially concerned about credit expansion, defined as any increase in the available quantity of fiduciary media. There is a strong theoretical reason for this new emphasis. First, through his in-depth study of the problem of economic calculation, Mises has come to the conclusion that the entire market economy rests on the monetary system, and that entrepreneurial action can be misdirected in an inflationist context. It is the importance of artificially misdirected action in terms of counterfactual impoverishment that leads Mises to pay greater attention to the credit expansion itself and to the search for the best means for limiting it. He writes:

> What economic calculation requires is a monetary system whose functioning is not sabotaged by government interference. . . . The first aim of monetary policy must be to prevent governments from embarking upon inflation and from creating conditions which encourage credit expansion on the part of banks.[80]

Second, in *Human Action*, Mises presents his own theory of interest whose integration to the theory of money is established precisely through the study of credit expansion: "In analyzing the problem of credit expansion, catallactics completes the structure of the theory of money and of interest."[81] Therefore, one should not be surprised to find in *Human Action* an analysis of fiduciary media that is enveloped in a new and different perspective.

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[79]Mises, *Theory of Money and Credit*, p. 449.

[80]Mises, *Human Action*, p. 225.

[81]Mises, *Human Action*, p. 571.

In this light, Mises also undertakes a significant revision of his early position on the intrinsic usefulness of this particular kind of money substitute. Considering fiduciary media merely as a self-created fund out of which commercial banks are enabled to grant circulation credit and proceed to credit expansion,[82] Mises completely reconsiders his initial very favorable assessment of their natural characteristics. First, and most important, Mises explicitly rejects his earlier argument that, in the absence of fiduciary media, economic progress would have been disturbed by systematic "convulsions" and reductions in welfare because of the gradual rise in money's purchasing power. The very existence of any "convulsion" is now rejected:

> But one must not say that a fall in prices caused by an increase in the production of the goods concerned is the proof of some disequilibrium which cannot be eliminated otherwise than by increasing the quantity of money.[83]

In addition, in the advent of changes in money prices, any attempt to replace the necessary adjustment of the production structure to the new price structure by a flexible money supply is in vain:

> It is possible by means of an increase in the quantity of money to delay or to interrupt this process of adjustment. It is impossible either to make it superfluous or less painful for those concerned.[84]

Thus, the flexibility of the money supply, which is an important aspect of fiduciary media, is not necessary at all for smoothing the functioning of a market economy.

This fundamental conclusion is supported by two additional arguments. First, whatever the general trend of prices, there can never be "convulsions" in the economy originated by this trend because it is price discrepancies, not this trend, that guide entrepreneurs' actions:

> [Entrepreneurs] do not heed the general movement of all prices. All that matters for them is the existence of discrepancies between the prices of the complementary factors of production and the anticipated prices of the products.[85]

Saying that entrepreneurs can act in any environment—at least, as far as the trend of the prices is concerned—is tantamount to discarding

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[82]See Mises, *Human Action*, p. 430.

[83]Mises, *Human Action*, p. 428.

[84]Mises, *Human Action*, p. 428.

[85]Mises, *Human Action*, p. 466.

the very existence of any distortion because of an ever-increasing purchasing power of money.

Second, fiduciary media could very well have contributed to capital consumption rather than capital accumulation, once the doctrine of forced savings is rightly understood.[86] Namely, given the distribution of wealth brought about by the change in the money supply, resources, which would have been saved, may be transferred to spendthrift individuals so that capital accumulation is lowered in comparison to what it could have been. But this implies that there is no guarantee that fiduciary media themselves have not been, and will not again be, a factor of disturbance.

Besides, Mises no longer endorses his favorable appreciation from the *Theory of Money and Credit* either of the extended use of fiduciary media in current exchanges or of the plans for a worldwide producer of fiduciary media. He merely limits himself to qualify as an "orthodox" or classical gold standard the circumstances in which gold remains in actual use, without any further comment.[87] As regards international monetary cooperation, he is of the utmost criticism: such a system can but fuel credit expansion, while creating permanent political tensions.[88] Definitely, none of the specific economic advantages of fiduciary media that Mises identified in the *Theory of Money and Credit* can be found in *Human Action*.

By contrast, Mises still accepts the Smith-Ricardo doctrine that money is a dead stock for the community, and he continues to share the view according to which, in a commodity money system, an increase in the purchasing power of money diverts resources to nonproductive employment.[89] Nevertheless, no welfare argument whatever is now established, in contrast to the *Theory of Money and Credit*.

Mises's new insight is that the sole alternative to a commodity standard, paper money, is not costless itself. This is so not only because, historically, paper money was much more inflationary than commodity money, forcing us to "admit that the expensiveness of gold production is the minor evil."[90] But, more fundamentally, there is no way

[86]See Mises, *Human Action*, pp. 545–47.

[87]Mises, *Human Action*, p. 457.

[88]Mises, *Human Action*, pp. 473–75.

[89]See Mises, *Human Action*, pp. 418, 519–20.

[90]Mises, *Human Action*, p. 419.

to avoid the non-neutrality of money or to neutralize its effects upon the distribution of wealth, whatever the kind of medium of exchange in the economy. Thus, on strong theoretical grounds, in *Human Action*, Mises renounces all of the particular advantages he initially ascribed to fiduciary media. Taking into additional account the disturbances their increase causes to economic calculation, a new, very strong, emphasis is now put on the study of the most fundamental question of whether the free market is capable of drawing a limitation on credit expansion or whether a deliberate human interference is required to this effect.

Mises's analysis of the "coexistence of a multiplicity of independent banks" leads him to the conclusion that competition among banks necessarily precludes each individual bank from increasing its issue of fiduciary media when others do not follow suit, so that "a limit is drawn to the issue of fiduciary media."[91] Mises is very confident that it is contrary to the interest of any individual bank to enter into a cartel, or to follow a leading issuer, lest it should lose its good will, which is difficult to acquire and indivisible.[92]

Therefore, free banking, understood as banking in the context of general compliance to the terms of contract, i.e., in the absence of any privilege preventing the instantaneous redemption of fiduciary media, is for Mises the best solution to the problem of credit expansion: "Free banking is the only method available for the prevention of the dangers inherent in credit expansion."[93] Consider also the following statements: "The establishment of free banking was never seriously considered precisely because it would have been too efficient in restricting credit expansion."[94] And: "Only free banking would have rendered the market economy secure against crises and depressions."[95]

Thus, concluding that the market does limit credit expansion, Mises reverses his earlier appreciation of the usefulness and necessity of artificial legal restrictions. He now considers that these legal restrictions were a result of previous interference with the free market which hindered the operation of the natural limitation:

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[91]Mises, *Human Action*, pp. 434–35.

[92]See Mises, *Human Action*, p. 444.

[93]Mises, *Human Action*, p. 440.

[94]Mises, *Human Action*, p. 438.

[95]Mises, *Human Action*, p. 440.

> It must be emphasized that the problem of legal restrictions upon the issue of fiduciary media could emerge only because governments had granted special privileges to one or several banks and had thus prevented the free evolution of banking.[96]

Furthermore, various legal restrictions can never work better than free banking:

> But even if the 100 per cent reserve plan were to be adopted on the basis of the unadulterated gold standard, it would not entirely remove the drawbacks inherent in every kind of government interference with banking. What is needed to prevent any further credit expansion is to place the banking business under the general rules of commercial and civil laws.[97]

The full-fledged study of the issuance of fiduciary media in *Human Action* leads Mises to develop a mature theory of free banking where artificial restrictions have no role to play at all. The emphasis from the *Theory of Money and Credit* on the specific advantages of fiduciary media is replaced in *Human Action* by the emphasis on the advantages of free banking. The crucial point is that this change of perspective results from a change in the answers Mises provides to the questions of whether fiduciary media have any intrinsic beneficial effects, and whether the free market draws a limitation on credit expansion. Only in *Human Action* does Mises arrive at an unambiguous conclusion on both questions whose treatment in the *Theory of Money and Credit*, as shown in the previous section, is problematic and inconclusive.

The Modern Free Banking School in Light of Mises's Monetary Theory

Having expounded Mises's mature position on the question of free banking and on banking theory in general, we are ready to cast a critical judgment on the attempts of the modern free banking school to identify its underpinnings with the Austrian theory of money. The goal of Selgin and White, to

> side with Mises, and part company from Rothbard and Hoppe, by acknowledging the legitimacy and practical

[96]Mises, *Human Action*, p. 437.

[97]Mises, *Human Action*, p. 440.

> advantages of fiduciary media and fractional-reserve banking,[98]

is attained only insofar as the goal is to side with the Mises of the *Theory of Money and Credit*. Once the definitive analysis of fiduciary media in *Human Action* is considered, no linkage whatever can be established between Mises's conclusion, which is premised on the absence of any advantages particular to fiduciary media, and the completely opposite standpoint maintained by the free bankers. Besides, Mises did not raise at all the question of the legitimacy of fractional-reserve banking; he neither acknowledged nor refused it. However, already in the *Theory of Money and Credit*, he makes a very important statement: "The depositing of the money in no way means that [the depositor] has renounced immediate disposal over the utility that it commands."[99] Mises is recognizing here that the depositor *remains* the owner of the money deposited. Therefore, were he to comment upon the legitimacy of its being lent out to a third party, he would probably have acknowledged a problem of property rights.

Even more fundamentally, the similarity of concepts used should not conceal the profound difference between Austrian banking theory and the foundations of the modern free banking school. What Selgin and White call fiduciary media of exchange is *not at all* the same thing as what Mises meant. The free bankers consider fiduciary media as a credit granted *to* the issuing bank, on which basis the latter can now lend more funds:

> The act of holding fractional-reserve bank-issued money not only (like holding base money) defers consumption for a longer or shorter period, but also *temporarily lends funds* to the bank of issue in so doing.[100]

This is tantamount to saying that fiduciary media are not created out of nothing, and that their issuing satisfies a human need. A cost-benefit calculus on behalf of rival issuers of fiduciary media assures then that all needs in this respect are satisfied.[101]

These conclusions are in strong contradiction even with the early Mises from the *Theory of Money and Credit*. One of the main findings

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[98]Selgin, "In Defense of Fiduciary Media," p. 86.

[99]Mises, *Theory of Money and Credit*, p. 301.

[100]Selgin, "In Defense of Fiduciary Media," p. 103, emphasis in original.

[101]Lawrence White, *Free Banking in England* (Cambridge: Cambridge University Press, 1984), pp. 1–22.

in this book is that fiduciary media are indeed created out of nothing, and that bankers can always produce more of them by a lowering of the interest rate precisely because their holding by the public is not a credit to the institution issuing the fiduciary media:

> A person who accepts and holds notes, grants no credit; he exchanges no present good for a future good. . . . The note is a present good just as much as the money.[102]

Selgin and White are unjustified when they take recourse to Mises's authority on those issues on which their point of view is absolutely irreconcilable.[103] There is an essential difference between Mises and the free bankers even on the question of the nature of fiduciary media; this is equally well evidenced by Selgin's implicit rejection of Mises's ontological classification of monetary objects when he tries to present the difference between circulation credit and commodity credit as a difference only of degree: "In fact, precisely what Mises means by commodity credit is not clear."[104]

This completely different understanding of the nature of fractional reserve banking leads to a divergent view on the role of this institution for attaining monetary equilibrium. Following Leland Yeager, the modern free bankers maintain that, in the short run, "the quantity of money supplied may exceed the quantity demanded," which gives rise to a monetary disequilibrium because of sticky prices.[105] Then a quantitative adjustment is needed:

> Moreover, since changes in the value of money fully eliminate excess supply or demand *only* in the long run (because it takes time for changes in spending to influence prices in a general way), short-run corrections in the real money supply require changes in the nominal quantity of money.[106]

Although outside the scope of this article, the doctrine of the short-run monetary disequilibrium requires a few general comments because of its far-reaching political implications. In his exposition, Yeager builds this doctrine on two essentials. The first is the so-called

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[102]Mises, *Theory of Money and Credit*, pp. 304–5.

[103]See Selgin, "In Defense of Fiduciary Media," p. 94 n. 103.

[104]George Selgin, *The Theory of Free Banking: Money Supply under Competitive Note Issue* (Totowa, N.J.: Rowman & Littlefield, 1988), p. 62.

[105]See Selgin, "In Defense of Fiduciary Media," p. 101.

[106]Selgin, *The Theory of Free Banking*, pp. 53–54.

"who-goes-first problem," according to which prices are rigid downward, so in the short run, an increased demand for money cannot be accommodated by changes in its purchasing power.[107]

The second problem is "the banal but momentous fact: money, as the medium of exchange, unlike all other goods, lacks a price and a market of its own." This implies that monetary equilibrium requires adjustments on all other markets, not only through changes in prices, but in quantities too.[108]

Both underpinnings are untenable. There is no good in the economy that has a market of its own, because on all markets, exchanges are exchanges of one good against money. A marketplace where the good X is exchanged against the money M is no more a market for the good X than a market for the money M. This fundamental insight immediately shows that the "who-goes-first problem" does not exist at all. An increased demand for money *means* an increased eagerness to obtain money for holding it, rather than acquiring other goods. Since all exchanges are monetary, the latter *means* an increased eagerness to part with other commodities, i.e., an increased readiness to sell at lower prices. The first individuals who decrease their selling prices are precisely those who desire to increase their money holdings. Mere action on the market, in the absence of any other contrivance, is perfectly sufficient for monetary equilibrium to prevail.

Endorsing the fallacious doctrine of the short-run monetary disequilibrium, modern free-bankers maintain that fractional reserve banking, because it allows for a flexible money supply, accommodates the increased demand for money and prevents the disruptive real effects of a disequilibrium that was initially only monetary. They conclude then that fiduciary media have a necessary equilibrating function for the whole of the economy.

It is true that, in the *Theory of Money and Credit*, Mises did find an equilibrating advantage in fiduciary media. It is also true that some imperfections we already identified in his earlier analytical framework can support the doctrine that the supply of money does not equal the demand for it. Nevertheless, the free bankers' view is in complete contradiction with Mises's accomplished monetary theory from *Human Action*. In pure quantitative terms, the supply of money, which is a

[107]See Leland Yeager, "The Significance of Monetary Disequilibrium," *Cato Journal* 6, no. 2 (1986), p. 374.

[108]Yeager, "The Significance of Monetary Disequilibrium," p. 377.

given stock of monetary units, can never diverge from the demand for money, which is the demand to hold this same stock. Moreover, in *Human Action*, Mises makes it very clear that an analysis in terms of monetary equilibrium can be but abortive for understanding monetary issues, because monetary equilibrium prevails necessarily on the free market.

What must be dealt with is the "money relation," and its study shows that "he who wants to increase his cash holdings restricts his purchases and increases his sales and thus brings about a tendency toward falling prices."[109] Lower prices are not necessary for monetary equilibrium to be achieved; they are only the manifestation of a different monetary equilibrium, i.e., of a change in the money relation. Therefore, "sticky prices" cannot be an obstacle for achieving monetary equilibrium; on the contrary, they are the outcome of a long-lasting equilibrium.

Let us note here in addition that we have already analyzed Mises's arguments denying any convulsions caused by a downward trend in money prices. Taking them into account, we deduce that the whole case for the equilibrating properties of fiduciary media, as expounded by the free bankers, collapses.

We conclude at the impossibility of any affiliation whatever between the modern free banking school and Mises's monetary theory. Essential differences separate their respective views even as to the advantages of free banking. The free bankers view free banking as that institution which supplies any quantity of media of exchange that individuals require, the supply being limited by cost-benefit calculations. On the other hand, Mises concludes that unprivileged banking, i.e., one committed to perfect convertibility and freed from *any* state involvement, is advantageous because it is the only monetary regime that neither disrupts entrepreneurial action nor annihilates the benefits from the division of labor.

In this light, Selgin's charge that Mises "did not explain the bearing of limited state involvement in banking upon the credibility of a convertible monetary regime" is particularly inadequate.[110] Mises saw that the essential question is not whether a monetary regime is credible, i.e., whether it is operating according to people's beliefs as to

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[109]Mises, *Human Action*, p. 408.

[110]George Selgin, "Ludwig von Mises and the Case for Gold," *Cato Journal* 19, no. 2 (1999), pp. 271–72.

how it would or should operate. What matters are the laws of its operation on the free market and in the instance of government interference. And these laws are precisely the subjects of Mises's discussions on banking.

CONCLUSION

This discussion of Mises's monetary theory has focused only on those points whose analysis in the *Theory of Money and Credit* differs substantially from their treatment in *Human Action*. The differences found should not in the least be considered as the result of an uncertain thought wandering on particularly delicate issues. No attempt has been made to explain what precisely led Mises to rectify some parts of his intellectual edifice, although this question may be of some importance for understanding his general theory of human action.

Suffice to say that the accomplished Misesian construction appears immune against early criticisms, and shows that the economic profession has not yet wholly integrated Mises's outstanding contributions to monetary theory. However, one should not conclude that *Human Action* dominates the *Theory of Money and Credit* in all respects or that it makes it superfluous. It merely ends a long thought-over project.

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