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EDITORIAL BOARD:

ON GOVERNMENT INVESTMENT AND CONSUMPTION

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ABSTRACT

This paper critically evaluates the argument that all government spending is, from the perspective of economic theory, simply consumption spending. The argument is questionable because it assumes that for investment to be meaningful, it must be directed toward consumer satisfaction, where "consumers" are a group mutually exclusive from government officials. Further, it assumes that government officials can be neither future- or consumer-oriented in their behavior. Related to these points, the argument also contains terminology structured so as to rule out objections simply by definition. In addition, the consumption-theory of government spending also potentially incorporates hidden value judgments. Finally, the argument actually overlooks important facts about government production which would otherwise go unnoticed.

KEYWORDS: Consumption Spending, Capital and Investment, Structure of Production, Public Finance, Demonstrated Preference.

1 Matthew McCaffrey, University of Angers, Mcm0016@gmail.com; The author wishes to thank Carmen Dorobăț, Xavier Méra, and Joseph Salerno for their comments on earlier drafts of this paper. Any remaining errors are entirely my own. This paper was written while the author was a research fellow at the Ludwig von Mises Institute.

Certain Austrian economists have advanced the claim that from the perspective of economic theory, all government spending, even spending that is ostensibly investment, is actually consumption spending. The most important of these are Rothbard (2000; 2004) and Block (1998). The purpose of this note is to clarify and criticize this argument. I identify four difficulties with this approach. First, the authors in question conflate statements about welfare with statements concerning production theory. Second, by carefully defining terms, they not only produce somewhat tautological results, but also (third) potentially violate the principle of value freedom. Finally, by oversimplifying the analysis, this argument obscures some important insights into the theory of economic intervention. However, although I will show that the arguments advanced are not correct as stated, portions of the underlying analysis appear sound, and have some further implications for the analysis of intervention in the market.

I shall focus mainly on the argument of Rothbard, who has the most systematic exposition of the argument. As we shall see, Rothbard's thesis depends on a few key assumptions and definitions, the most important of which is his emphasis on consumer satisfaction as the ultimate and only meaningful end of economic activity.[2] Throughout Rothbard's exposition of economic theory in his Man, Economy, and State, saving, investment, and production are always regarded as processes leading to the satisfaction of consumer wants, and many basic definitions are constructed with reference to consumer welfare. For example, when he considers the distinction between consumers' and producers' goods, he states:

We call the retail sale of the butter the sale of the *consumers' good*, since it is the *last sale for money* along the path of the butter's production. Now the good is in the hands of the ultimate consumer... Capital goods are produced goods that must be combined still further with other factors in order to provide the consumers' good— the good that finally yields the ultimate satisfaction to the consumer. (Rothbard, 2004, pp. 298—299; emphasis in original)

Rothbard's definitions of capital goods and investment are also built on the distinction between the production of goods for the purpose of consumer satisfaction, and production that takes place contrary to consumer wishes:

The consumer's standard of living, however, is the be-all and end-all of the entire production process. *Production* makes no sense whatever except as a means to *consumption*. Investment in capital goods means nothing except as a *necessary way station to increased consumption*. (Rothbard, 2004, p. 966; emphasis in original)

These distinctions are closely related to Rothbard's utility and welfare theory, which will help to explain his theory of investment. Rothbard's distinct approach to welfare analysis allows him to draw a sharp line between economic activities in accordance with consumer demands and activities that serve other purposes. This division is then used to support the

2 Rothbard's theory of public finance appears to have built on the work of Jean-Baptiste Say. Cf. Brandly (2007).

argument denying the possibility of government investment, so let us examine it briefly before proceeding to the theory of production.

Rothbard (1997, 2004) develops a theory of the welfare implications of both market (voluntary) and government (coercive) behavior. Rothbard (1997) contends that the concept of 'demonstrated' or 'revealed' preference is the unifying principle that can be used to discuss the welfare implications of human behavior. His approach to preference is distinct, however, from that found in the standard revealed-preference literature.[3] The essence of the theory can be summarized in a few short principles. Put simply, if an actor chooses a certain course of action, he demonstrates a preference for that action while simultaneously demonstrating that he did not prefer any other course of action he considered available at the time. The chosen behavior is thus optimal from the actor's perspective, and maximizes utility *ex ante*. Consequently, if all individuals act voluntarily, the welfare of society (a collection of individual actors) is maximized. Likewise, if an actor is coerced into committing a certain action, he thus demonstrates that that action was not optimal from his perspective; otherwise he would not need to be coerced. He thus suffers a decrease in welfare by being prevented from pursuing his most highly valued end. Coerced behavior does, however, maximize the utility of the coercing individual, who does demonstrate a preference for the action. These two principles together form the core of Rothbard's utility and welfare economics. Notice that the emphasis is largely on the *ex ante* situation. *Ex post,* we can say almost nothing about welfare outcomes using this theory, because these outcomes are not revealed through action. The *ex ante* situation is, therefore, the vital one in Rothbard's welfare theory (Herbener, 1997).

How does this theory apply to government investment? Recall that a state or government is usually defined as the monopolist of coercion and taxation within certain geographical limits.[4] The implication for Rothbard is that, inasmuch as government is coercive, government activities (specifically, government spending) are not welfare maximizing, and therefore, never Pareto-superior. The demonstrated preferences of both the coerced and coercing parties reveal as much. There are two forms of government action in particular that concern us: taxation and production. The above welfare analysis is crucial, because it means that taxation (a coercive activity) decreases the utility of the taxpayers at the expense of those acquiring taxed resources. We also know then that production— the time-consuming allocation of taxed resources by the state— benefits those redistributing resources, although the effect on other members of society is unclear. Let us now turn to the production aspect of government behavior.

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3 For a review and defense of this approach to utility and welfare economics, cf. Gordon (1993) and Herbener (1997).

4 Consider for instance North's definition: "A state is an organization with a comparative advantage in violence, extending over a geographical area whose boundaries are determined by its power to tax constituents" (North, 1981, p. 21). I use the term "coercive" throughout this paper, although in his discussions of government, it is important to note that Rothbard is speaking of the initiation of coercion, or in other words, aggression.

The next step in Rothbard's reasoning is to point out that when goods are produced using expropriated funds, these goods are not being used in accordance with the preferences of consumers:

> *In any sort of division-of-labor economy, capital goods are built, not for their own sake by the investor, but in order to use them to produce lower-order and eventually consumers' goods. In short, a characteristic of an investment expenditure is that the good in question is not being used to fulfill the needs of the investor, but of someone else– the consumer. Yet, when government confiscates resources from the private market economy, it is precisely defying the wishes of the consumers; when government invests in any good, it does so to serve the whims of government officials, not the desires of consumers. Therefore, no government expenditures can be considered genuine 'investment,' and no government-owned assets can be considered capital. Government expenditures are divisible into two parts:* ***consumption*** *expenditures by government officials, beneficiaries of government subsidies, and other nonproductive recipients; and* ***waste*** *expenditures, where government officials really believe that they are 'investing' in 'capital.' These waste expenditures result in* ***waste assets****. (Rothbard, 2004, p. 941; emphasis in original)*[5]

Using the demonstrated preference approach, Rothbard can conclude that taxation, because it is coercive, redirects the pattern of investment away from what it would have been in an unrestricted market. If entrepreneurs wanted to invest in the same projects as government, they would not need to be coerced. Therefore, the presence of coercion demonstrates a shift in production away from the pattern that would have prevailed in an unrestricted market. In addition to redirecting production, this approach also leads Rothbard to a public choice-style argument that much government intervention, especially intervention that erects barriers to entry, grants privileges to market participants; that is, it enables and provides an incentive for rent-seeking (Frech, 1973).

The line of reasoning runs from consumer demands, to welfare analysis and demonstrated preference, to the theory of public finance. Rothbard's argument ultimately leads him to conclude that a "system of compulsory investment *lowers* the standard of living of almost everyone, certainly in the near future... government 'investment,' as we have noted above, turns out to be a peculiar form of wasteful 'consumption' by government officials" (Rothbard, 2004, 966; emphasis in original). Rothbard's argument reduces to the claim that all government spending is simply consumption spending (cf. also Rothbard, 2000, p. 20). Although very few economists would argue that all government investment is *economically viable*, the claim that all government expenditure is really just *consumption* is a strong one indeed, and deserves

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5 Cf. also Rothbard (2004, pp. 962-96; 2000, p. 20n15).

attention. One important implication of this argument, if correct, would be that government spending cannot be entrepreneurial, because entrepreneurship implies investment.

Rothbard is claiming that because governments can neither invest nor own real capital, they can never engage in any sort of productive activity at all. But the key to understanding this reasoning lies in how he defines terms such as 'consumption' and 'investment.' It should be emphasized that Rothbard speaks of capital and investment with reference to the idea of production designed to increase consumer satisfaction.[6] He is quite clear in stating that investment is defined with respect to consumer demand: "Investment occurs where producers' goods are bought by entrepreneurs, not at all for their own use or satisfaction, but merely to reshape and resell them to others– ultimately to the consumers" (Rothbard, 2004, p. 1259).[7] Government allocations of resources then, by the demonstrated preference argument, are by definition not investment. I shall return to this point below.

Given the above discussion of consumer wants, however, it appears that Rothbard uses the non-consumer-driven quality of government investment as the criterion for distinguishing it from "true" production, and for distinguishing 'investment' from 'consumption' and 'capital' from 'non-capital.' In fact the trouble is precisely this: Rothbard equates the concepts 'capital' and 'non-capital' with 'capital valued according the wants of consumers' and 'capital to some degree *not* valued by the wants of consumers.' If this is all he means, then there is nothing in Rothbard's distinction between capital and non-capital that is not summed up in the distinction between consumer-driven and non-consumer-driven production processes, and there is no analytical gain from his terminology. Such definitions simply preclude the possibility of government production. Additionally, there is tension between this definition of capital and Rothbard's simpler, more general, definitions which do not exclude the possibility of government capital. Take, for instance, the produced-means-of-production definition of capital goods (Rothbard, 2004, p. 10), or the definition of capital with respect to *some* consumer, as opposed to a consumer different from the entrepreneur (Rothbard, 2004, pp. 298–299).

In supporting Rothbard's position, Block (1998) argues along similar lines:[8]

> *While an orthodox economist may take one look at an airport, for example, and immediately classify it as investment, the Austrian must not be fooled by the chemical, physical, mechanical or engineering aspects of the facility; he must probe beneath the surface, and ascertain the purposes of such an expenditure. In the private sector, the*

6 Rothbard's terminology in the above should also be understood contextually, and might appear odd when removed from its original setting. Rothbard in the passage above is addressing (ostensibly) common fallacies relating to "binary [government] intervention," especially those of national income accounting, and so it is natural he would have chosen his terminology with this topic in mind.

7 Rothbard (2000, p. 20n15) contains the same definition.

8 Block has certainly been influenced by Rothbard's work on the theory of public finance. On this point, and for a more general critique of public finance from this perspective, cf. Block (1989).

> *purpose of an airport, or any other such capital good is clear: it is to make profits, by providing consumers... with a service they value, and for which they are willing to pay. In contrast, a politically-created airport need have no such goal. And, typically, it does not. Rather, the purpose is usually to buy votes, or to enhance political prestige, or for the sheer desire, on the part of the politician, to see an airport erected on a particular cite [**sic**]. It may be located so far away from the consumers that it is hardly used at all... In any case, the wishes of the consumer are all but irrelevant. But the whole point of investment is, ultimately, consumer satisfaction. Government expenditure, safe from the wrath of the final customer, thus cannot be considered investment. (Block, 1998)*

Block argues that any theory of government investment is actually based on some type of "chemical, physical, mechanical, or engineering" standard. This sort of theory is opposed then to an assessment using the standard of the subjective theory of value, which examines economic phenomena primarily inasmuch as they relate to the valuations of individuals. This latter approach is the one taken by Rothbard and Block. The distinction is important, because, given the subjective theory of valuation, we can only speak of physical, chemical, mechanical, or engineering properties of things with reference to individual preferences: these characteristics have no distinct economic meaning independent of such values. It is therefore reasonable to suggest, as Block does, that any definition of terms must relate to some form of valuation. However, for Block's argument to prove decisive against alternative theories of government investment, it must also be the case that there is no possible alternative theory of government investment that is also consistent with the subjectivist approach. It should be obvious though that this is not necessarily the case. To point out that particular definitions do not properly take valuation into account does not imply that *no* other definition can (see below for a proposed alternative). And Block and Rothbard certainly do not attempt to make such a general argument. As a critique of alternative approaches then, Block is not necessarily successful. One might still ask though whether there is a theoretical justification for the terminology employed by Block and Rothbard, which might make it superior to others.

Let us look further at their classification system. As with the concept of capital, 'investment' for Rothbard and Block only involves production activity that is undertaken in order to satisfy consumer demand. The corollary term 'malinvestment' in this context refers to production that is not undertaken for this purpose. Government production is not investment then, but only because investment has been defined from the outset to exclude government spending. But of course, government spending can still be production for some future satisfaction of wants. In claiming that government investment is not investment at all, Rothbard and Block conflate two different statements: first, that all meaningful government production is impossible, and second, that government production, because of its coercive quality, does not increase consumer welfare.

However, *in the more limited sense that scarce resources are devoted to time-consuming production processes*, government production is no different from ordinary investment. Its status as investment activity does not depend *on who exactly* desires it but merely requires *that it may be desired* by someone.[9] The subjective theory of value does not distinguish between different groups of individuals; it merely postulates the existence and importance of individual preferences and the fundamental fact of economic valuation. If we must employ definitions related to valuation, government investment does not pose a problem. In addition, it is also questionable whether a simple line can be drawn at all between "consumers" and "government" *viz.* production. That is to say, there is not one group, 'consumers', that exists completely separate from another group, 'the state and its beneficiaries.' These two are often intermixed, and it is not clear whether a given demand occurs as a result of membership one group or the other, and thus whether production benefits one group over another. This is not to say that market and government investment are equivalent, only that government investment is meaningful as such, and that the consumer-based definition of investment overlooks this possibility. I argue, then, that carefully constructed terminology leads Rothbard and Block to make misleading inferences about government spending and investment.

It must be emphasized that the foregoing discussion does not imply that government investment is strictly equivalent to market investment. Certainly is it not. Political resource allocation is fraught with difficulties, most notably the impossibility of (or severely limited access to) economic calculation, as discussed by Mises and others (Mises, 1981, 1998). There are, furthermore, the problems of knowledge elaborated by Hayek (1945, 1948; esp. chaps. VIII & IX), and the issues of rent-seeking and capture found throughout the public choice literature. All these difficulties reduce or eliminate the ability of government allocations to achieve the level of success or the arrangement (coordination) of the structure of production obtained by market entrepreneurs. Yet— once again emphasizing broad definitions of terms— there is no reason why these decisions cannot in theory result in the production of saleable resources which might be called "investment" (McCaffrey and Salerno, 2011). The above issues, along with the demonstrated preference approach to utility, are extremely important and should not be left out of the analysis, but the point regarding the conceivability of government "investment" still appears to stand.[10]

Continuing this line of thought, Rothbard's and Block's theory passes over the difference between the immediate implications of government appropriations and the— temporally later— *effects* of government spending. Even if resources are first appropriated in a welfare-decreasing manner, this does not mean they cannot be redirected to producing things that consumers find desirable in the future (although the *ex ante* welfare, calculation, and rent-

9 I use the qualifying words "may be" instead of "is" to emphasize that there is uncertainty in production processes that is borne by the entrepreneur. In particular cases, it is not strictly speaking correct to say the market produces things people desire, but rather those things entrepreneurs believe, based upon economic calculation, people will desire.

10 A simple analogy may clarify the point. If a thief spends his ill-gotten gains in the stock market, might not he aid in the production of valuable goods? The complications which arise from replacing this individual thief with government do not appear to change the essence of the problem.

seeking problems still imply the superiority of the market in making these decisions). The *ex post* results of redistribution are unclear, and Rothbard's welfare-based approach only sheds light on one part of the problem to be examined. But a government may, if it exercises a sufficient amount of entrepreneurial insight (which, given the difficulties involved, might boil down to an impossible amount of good luck), discover profitable avenues of investment. The exact likelihood of this actually happening is relevant for considering how to minimize the negative effects of the original appropriation. But what matters for this paper is that it is conceivable, even if only as an inferior solution. Rothbard's welfare theory does not take account of the multi-period allocation of resources, and because of its *ex ante* focus, neglects to address consumer welfare in subsequent stages of production.[11] The problems of resource allocation and uncertainty-bearing are not inapplicable in the case of government. In fact, "political entrepreneurship" is a matter of accurate speculative decisions on the part of government resource owners, which are not inconceivable (McCaffrey and Salerno, 2011). Further, even if the entire welfare picture could be discovered through the demonstrated preference approach, the welfare effects alone would not be enough to dismiss government investment as consumption, because, as we have seen, it is not necessary to define terms in this way. A conflation of welfare analysis and production theory would still lurk beneath the surface of the investigation.

Developing his theory, Rothbard considers the problem in a slightly different way:

> *All government expenditure for resources is a form of **consumption** expenditure, in the sense that the money is spent on various items because the government officials so decree. The purchases may therefore be called the consumption expenditure of government officials. It is true that the officials do not consume the product directly, **but their wish** has altered the production pattern to make these goods, and therefore they may be called its "consumers." [A]ll talk of government "investment" is fallacious. (Rothbard, 2004, 1153; emphasis in original)*

In this version of the theory the key point is the apparently arbitrary ability of government officials to alter production. Government "wishes" divert production from a pattern favorable to consumers, and therefore is not investment, and anything produced in the process must be considered consumption goods for government officials. Yet once again, it is not necessarily the case that government decisions are made without regard for some group of consumers, even if other groups are severely harmed in the process.[12] Furthermore, Bar-

11 It should be noted that focusing on the *ex ante* aspects of exchange is not a flaw in Rothbard's approach, but a necessity, because ex post valuations cannot be demonstrated through action.

12 Another problem presents itself. Definitions which insist that the entrepreneur does not produce for himself but rather for "consumers" imply two things: (1) there can be no such thing as capital or investment in a Crusoe economy, because there are no consumers toward whose satisfaction production is oriented, and therefore

nett and Block (2009) argue that the wishes of officials are not an appropriate test for determining whether spending is consumption or investment, because all spending depends on the "wishes" of some actor. Specifically, while it is true that market investment is directed toward satisfying the desires of consumers, this is by no means an automatic process. The structure of production must be adjusted preemptively by entrepreneurs, whose "wishes" determine the arrangement of the factors of production. In this narrow sense, the decisions of entrepreneurs and government officials are equivalent, because either group may allocate resources toward future increased consumption, which is a "non-controversial" definition of investment (Barnett and Block, 2009).[13]

In a study similar to Rothbard (2004) and Block (1998), Hoppe (1990) attempts to clarify their position somewhat by referring to government investment as 'the structure of mal-production', This term is perhaps more appropriate than simply 'consumption', because it at least views government investment as some sort of production. Nevertheless, it is also problematic. Specifically, this particular characterization potentially violates the principle of value-freedom; to describe production not in accord with consumer wants as 'mal-production' may be to assume or, at least imply, the superiority of consumer-driven allocations of resources and the inferiority of government allocations. At best, however, from the perspective of economic theory, government investment merely divides the overall investment in the economy into two groups: investment for some consumers on the one hand, and investment for the state and its favored parties (other consumers) on the other. Which (if either) of these is preferable is not a matter of economics, but of ethics. This point is significant, should we choose to abide by the value-free approach.

This apparent value judgment also appears in Rothbard's treatment:

> *Deprived of a free price system and profit and-loss criteria, the government can only blunder along,* ***blindly "investing" without being able to invest properly in the right fields, the right products, or the right places****... A beautiful subway will be built, but no wheels will be available for the trains; a giant dam, but no copper for transmission lines, etc. These sudden surpluses and shortages, so characteristic of government planning, are the result of massive malinvestment by the government. (Rothbard, 2004, p. 967; emphasis added).*[14]

(2) in this sense, Crusoe is on the same footing as government officials. As an interesting comparison, Fetter implies that entrepreneurial (non-contractual) income is one of the *only* incomes in a Crusoe economy (Fetter, 1915, pp. 318–319).

13 Barnett and Block (2009) only mention the case of an official who allocates for *his own* future goals, but neglect the possibility that officials might be interested in, for instance, serving consumers.

14 In the above quotation from Block (1998), it is evident that the preference for consumer-oriented definitions is present in his argument as well.

It is not clear *economically speaking* why consumer-driven production should be considered any more 'right' or 'correct' than government production. This terminology is only meaningful if 'correct' is defined as 'in accordance with the wants of consumers.' But in this case too, there is the possibility of a hidden value judgment, which, at the least, should be carefully noted. It would have to be shown that there is something more correct about consumer preferences than government investments. This is a problem of semantics though, of classification from one point of view (the point of view of consumers) that conflicts with another classification and viewpoint (the perspective of a state).[15] It is odd that Rothbard should fall into this error, given that he makes precisely the same criticism of national income accounting, arguing that to treat the public and private sector as separate, economically similar entities implies positive moral and economic assumptions about the state (Rothbard, 2011). As a terminological issue though, it should not matter if we call government assets 'capital' and certain government expenditures 'investment': even if we maintain Rothbard's theory, all that matters is the distinction between consumer-driven processes and non-consumer driven processes of production.

Rothbard appears to realize the awkwardness of the above arguments and later provides a more concise version in his *Power and Market*:

> *As for the transfer expenditures made by the government (including the salaries of bureaucrats and subsidies to privileged groups), it is true that some of this will be saved and invested. These investments, however, will not represent the voluntary desires of consumers, but rather investments in fields of production* ***not*** *desired by the* ***producing*** *consumers. They represent the desires,* ***not*** *of the producing consumers on the free market, but of exploiting consumers fed by the unilateral coercion of the State... The new investments called forth by the demands of the specially privileged will turn out to be* ***malinvestments****. (Rothbard, 2004, p. 1168; emphasis in original)*

Rothbard has discarded his earlier potentially confusing terminology, and his claim is no longer that governments cannot meaningfully invest or own capital. Instead, he is merely pointing out that government investment diverts the structure of production from the course that it would otherwise have taken (in an unregulated market). Government investment is only necessarily 'malinvestment' from the perspective of those who ultimately lose from redistribution, not the redistributive winners. This is an improvement on the stronger version of the claim made above. However, for the purposes of production theory, we can discuss

15 Uncritical use of these basic definitions comes close to what Professor Yeager, following Popper and Schumpeter, calls the problem of "essentialism": that is, of assigning universal and unchangeable defining characteristics to words and concepts. Cf. Yeager (2010). It is appropriate that Schumpeter originally addressed this problem in relation the definition of concepts such as "capital" (1954, p. 989). Note that this form of essentialism is different from the "methodological essentialism" of Menger and Böhm-Bawerk, as discussed in Kirzner (1992) and Smith (1994).

government 'investment' and 'capital' merely in terms of time-consuming production processes for the benefit of some individual(s), without reference to welfare properties, or any other characteristics that would render government spending a distinctly and universally consumptive activity. A careful rephrasing yields the conclusion that government spending can be investment. The difference between market and government investment depends on who the investment is designed to benefit. For Rothbard, this difference consists in a distortion of the 'structure of production,' and subsequent welfare losses, but this is not the same as the consumption-vs.-production problem.

Similarly, Barnett and Block (2009) reject the position that all government spending is consumption spending, pointing out that the purposes of government or criminal resource use are not necessarily consumption-oriented, but might easily be future-oriented instead. Additionally, the ethical status of an investor does not change the praxeological problem of investment (discussed further below), or in other words, the ethical aspects of spending do not necessarily effect the economic question of whether it is consumption or investment spending.

The original government-investment-as-consumption approach does not then live up to its ambitions. There are simply too many careful definitions, seemingly designed to rule out the conclusion that government spending could ever be productive in a meaningful market sense. And although the demonstrated preference approach to welfare analysis is useful, it does not fill the gap in Rothbard's critique of public finance. All this is not to say that there is some inherent efficiency or welfare-increasing aspect of government investment. All I mean to argue is that government may be an investor and producer in ways that cannot be characterized as consumption, and that are consistent with the subjective approach to valuation, despite being inferior to market allocations in highly significant ways.

As a way of emphasizing the arguments of this paper, one can do no better than examine Mises' treatment of the problem. Mises also takes the broadly subjective approach of Rothbard and Block, pointing out that capital cannot meaningfully be defined without reference to valuation: "The idea of capital has no counterpart in the physical universe of tangible things. It is nowhere but in the minds of planning men" (Mises, 1998, p. 511). Physical definitions of capital are, therefore, sterile, as Block (1998) notes. A praxeological approach, however, views capital with respect to action, but Mises does not state which *kind* of action:

> *Capital is a praxeological concept... It is a product of reasoning, and its place is in the human mind. It is a mode of looking at the problems of acting, a method of appraising them from the point of view of a* ***definite plan****. It determines the course of human action and is, in this sense only, a real factor. It is inescapably linked with capitalism, the market economy. It is a mere shadow in economic systems in which there is no market exchange and no money prices of goods of all orders. (Mises, 1998, p. 512; emphasis added)*

In this passage Mises takes a position similar to Rothbard and Block, but avoids potentially confusing terminology or definitions. Capital is a useful concept with reference to human plans, but Mises does not say that those plans must involve consumer satisfaction in the sense used by Rothbard or Block. Satisfaction of some wants is clearly necessary in the concept of capital, and furthermore, genuine markets are necessary conditions as well. However, Mises does not comment on the essence of capital beyond implying two extremes— unregulated markets and socialism. The last sentence echoes Mises' criticism of socialism, and explicitly states that under such a system, there would be no such thing as capital, but merely a collection of goods. The definite implication, though, is that in a mixed economy there is some semblance of calculation— capital is not "a mere shadow," but something more substantial, although distorted compared to market results. Other comments make this point more explicit, as when Mises argues that even under a system of intervention, markets and economic calculation still exist in some form (Mises, 1998, pp. 712—715). Perhaps capital in such cases might be called "quasi-capital," to capture the relevant similarities and differences. In any case, when Mises discusses the praxeological aspect of capital, he implies much the same argument made above: that praxeology by itself provides no reason why we should privilege "action for the benefit of consumers" over "action in general" in the definition of capital (or related concepts such as "investment").[16]

One possible counter-argument remains. It might be claimed that because capital formation requires saving, government expenditures cannot qualify as saving, because government resource allocations do not require any political actor to refrain from consumption (instead they impose restrictions on taxpayers). Mises provides a response to this criticism. He continues the line of thought previously cited, arguing that capital formation can take place *without reduced consumption*, if, for example, individuals spontaneously discover methods of increasing net production (Mises, 1998, pp. 512—513). There is, therefore, a false conflation of saving and reducing present consumption: the two need not coincide.

As a closing point, I must emphasize the relevance of this topic for contemporary research. It is important that Rothbard's approach actually conceals several more fundamental claims. The most important is that government spending creates a pattern of investment *different*— not necessarily inferior in any particular case— from that which would have occurred in an unregulated market. Ultimately then, there is nothing to preclude the possibility of government investment as such. An immediate implication of this fact is that definite opportunities exist for "political entrepreneurship," government investment in time-consuming production, subject to uncertainty and capable of yielding a market income (McCaffrey and Salerno, 2011). There is an added layer of complexity that appears when we take into consideration the possibility of government as an investor, and this complexity may have important and fruitful implications for the theories of public finance, political

16 This does not, however, mean that any non-praxeological distinctions of this type would not be important. If raised, presumably they could be evaluated on their own merits.

entrepreneurship, and the theory of intervention generally. I hope that the conclusions of this paper will help spur further exploration in these areas.

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THE RATIONALE OF ORIGINARY INTEREST

EDUARD BRAUN[1]

ABSTRACT

Judging from the tenor of some recent publications, time preference is still not generally accepted as the cause of originary interest. Up to the present day, the theory has not been formulated in a way to rest its case beyond doubt. In this paper it is argued that the time preference theory is deterministic and therefore incompatible with freedom of choice. The reason for originary interest must not be looked for in preferences, but in the logic of action itself. Based on the critique uttered in the earlier chapters, a positive and truly praxeological theory of originary interest is developed. The reason for originary interest has to be looked for in the value-spread between the psychic costs and the psychic revenues of actual human actions, not in contingent preferences.

KEYWORDS: interest theory, praxeology, time preference

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1. INTRODUCTION

In a recent article,[2] Professor Hülsmann proposed a radically new "Theory of Interest." He maintains that time preference is not, if at all, the sole cause of the phenomenon of originary interest. Instead, originary interest must be regarded as the fundamental value differential between means and ends in human action. The article has, up to the present day, not been the object of debate[3] although highly deserving of it. Hülsmann shows, contrary to Frank Fetter and Ludwig von Mises, that there is still a decisive step to make until a purely praxeological explanation of originary interest is reached. In the present essay it is argued that Hülsmann is correct in criticising the time preference theory. But the theory that he presents as a substitute does not totally satisfy either. He concentrates on the role of means and ends. The relationship between these two is, however, only of a *technical* character. The relevant *economic* relationship can only be found between the psychic costs and the psychic revenues of human action. It is there that the reason for originary interest can be found.

In chapter two, the concept of originary interest is shortly explained. Chapter three summarises Hülsmann's critique of the time preference theory. As the name of the latter already indicates, the phenomenon that the corresponding theorists have in mind is a matter of contingent preferences. It therefore does not rest on praxeological laws. Chapter four illustrates that Professor Hülsmann himself, although being aware of the problems, does not entirely succeed in providing a praxeological theory of interest. In the fifth chapter, the reason for originary interest is argued to lie in the value-spread between the psychic costs and the psychic revenues of human action, no matter what the preferences of the respective actors look like. The sixth chapter contains the essence of our *a priori* knowledge concerning the relationship between time and action. It explains why total interest payments increase with the passing of time. Chapter seven deals with actions that could be problematical to the proposed theory. Chapter eight explains the existence of monetary interest as a simple implication of the logic of action. On the basis of the theoretical results, chapter nine finally argues that the higher productivity of roundabout production processes is a result, not the cause, of the interest phenomenon.

2. ORIGINARY INTEREST

It has been recognised for centuries that the passing of time is not without influence on human behaviour. And this influence becomes especially visible in the phenomenon of *interest* that has to be paid for borrowed money. The longer the period of time that money is borrowed, the higher total interest payments become. Now, as Ludwig von Mises and other

2 See Hülsmann (2002).

3 An exception is Gunning (2005).

economists of the Austrian School show, the role of interest rate on loans is "one of complete and utter dependence on the rate of interest as determined"[4] elsewhere. According to them, the interest rate pervades the whole economy.[5] All producers in a market economy are producing because they expect to profit "from the *price spread* between their selling price and their aggregate factor prices."[6] These price spreads would exist even if there were no loan and no capital markets and, therefore, no plainly visible interest rate.7 Without these spreads, there would be no "incentive for investment"[8] in the first place. It is important to add that, in the eyes of the named theorists, these price spreads do not disappear in the *evenly rotating economy*.[9] In other words, they still exist in *equilibrium*, that is, after all "latent forces operating which will go on bringing about price changes" have acted out, and "provided no new data appear, the final price and the final state of rest are established."[10] The *equilibrium* spread between the prices of consumption goods and the sum of the prices of the factors of production employed in their production is called *originary interest*.[11] It is the task of this paper to explain this spread based on our *a priori* knowledge of human action.

3. TIME PREFERENCE AS THE REASON FOR ORIGINARY INTEREST

Depsychologising Frank Fetter's and Franz Čuhel's exposition,[12] Mises[13] explains the phenomenon of originary interest by the existence of "time preference" — the fact that men "discount future goods as against present goods."[14] As this statement alone would be very general, he confines the discount to present and future goods "of the same kind and quantity."[15] This expression goes back to Eugen von Böhm-Bawerk. "The core and central

4 Rothbard ([1962] 2004, p. 425), see also Mises (1949, p. 524), Dorp (1937, p. 62), and Fillieule (2010, p. 126).

5 See Fillieule (2010, p. 124).

6 Rothbard ([1962] 2004, p. 423, emphasis by Rothbard), similarly Hülsmann (2002, p. 77).

7 See Rothbard ([1962] 2004, pp. 425 f.).

8 Ibid. (p. 425)

9 See Mises (1949, p. 521).

10 Both quotes from ibid. (p. 247).

11 See ibid. (p. 521), also Hülsmann (2002, p. 87), Fillieule (2005, p. 5).

12 See Pellengahr (1996, p. 11). Fetter's exposition can be found in Fetter (1915, chapter 20), Čuhel's remarks in Čuhel (1907, p. 304).

13 See Mises (1949, pp. 521 ff.).

14 Ibid. (p. 523)

15 Ibid. (p. 521)

point of interest theory," the latter expounds, is that, "as a general rule, present goods are worth more than future goods of the same kind and quantity."[16] Mises erases the expression "as a rule" and maintains that this statement holds generally.[17]

The expression "preference" as used by time preference theorists indicates that they consider time preference to be subject to human discretion. This would imply that one could have a preference for time or not, just as one can have a preference for apples or not. But this is not how Mises wants this term to be understood. "*Time preference is a categorial requisite of human action*."[18] It appears in all actions, and can therefore not be subject to human discretion.

If Mises now went on to show that time preference indeed is a "categorial requisite" of human action, our sole point would be that the expression "preference" is misleading. Yet, he does not succeed in formulating a praxeological theory of time preference.[19] This point has been brought home by Professor Hülsmann. Following the latter, Mises's explanation of time-preference can be called "the consumption theory of time preference."[20] It is based on the observation that people consume, which is an empirical or historical fact, but not a praxeological law. *People do not necessarily consume, i.e., they do not necessarily prefer present goods to future goods*. Even the consumption that is essential for survival is not forced on us by praxeological laws. There exist and always have existed men who value specific things more than their own survival. Hülsmann mentions warriors and martyrs.[21] The will to consume even the minimum, consequently, is not fixed in man by some praxeological law. Think only of the case of breathing. Man has to breathe to survive. Nobody would deny that. *But it is not the logic of action that forces us to breathe*. In the formulation Mises gave to it, time preference is a matter of contingent preferences, not a law of action.

At this point it seems to be indicated to go into an argument that many Austrian economists[22] discuss in order to support their theory of time preference. They try to demonstrate that their opponents violate the *ceteris paribus* condition. Therefore, they discuss the following objection: "In wintertime, why should anyone prefer ice delivered then [present good]

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16 Böhm-Bawerk (1921b, p. 318, see also p. 327). Similarly Fisher (1930, p. 36).

17 See Hülsmann (2002, p. 79 f.).

18 Mises (1949, p. 481, emphasis added)

19 His arguments also do not seem to be accepted, or even recognised, by most other economists: "To our knowledge no one has ever provided convincing evidence that there is in fact normally positive time preference, or even specified an empirical test capable of determining whether there is or not." (Olson/Bailey 1981, p. 1)

20 Hülsmann (2002, p. 79) Professor Gunning (2005, p. 83) is searching "in vain" for corresponding textual evidence. However, the passage by Mises he himself quotes seems to contain support enough for this interpretation.

21 See Hülsmann (2002, p. 80).

22 See e.g. Rothbard ([1962] 2004, p. 15 f., n. 15), Huerta de Soto (2009, p. 272, n. 9), Mises (1949, p. 486 f.), and Fetter (1915, p. 238).

to ice delivered in the following summer when the weather is very hot [future good]."[23] This argument is thought to provide an example of a situation where most people actually prefer a future good to a present good. According to the Austrian authors, however, this example violates the *ceteris paribus* condition. Consumption of ice-cream in winter, they say, is not the same good as consumption of ice-cream in summer.[24]

Yet, if we construct the same example in a way that doesn't violate the *ceteris paribus* condition, it cannot be inferred from the then prevailing situation that, now, it is perfectly clear that the present good is always preferred over the future one. It is not at all definitive that people having the choice between ice-cream this summer and ice-cream in the next one will always opt for the former. There is no praxeological law hindering people from preferring the latter option. *Human preferences are not subject to restrictions of this kind*.

The essence of this point is that time preference cannot be found in the relationship between different ends in mere human choices, like between consumption today and consumption tomorrow. There is no order of ends fixed in the value scales of individuals that forces them to consume at all in order to survive, i.e., that forces them to prefer present ends to future ones. This area is open to human discretion. Time *preference*, therefore, cannot be the cause of originary interest because it does not necessarily exist, at least in the way it is presented by Ludwig von Mises. Seeing this shortcoming, Professor Hülsmann[25] looks for originary interest directly in the relationship between ends and means, i.e. *in the logic of action itself*, not in the concrete content of human preferences.

4. ORIGINARY INTEREST AS FUNDAMENTAL VALUE-SPREAD BETWEEN MEANS AND ENDS

In his paper, Professor Hülsmann tries to develop a purely praxeological theory of interest without accounting for time preference as a fundamental cause of originary interest. For him, originary interest is to be found in the value-spread between the means and the ends of human actions. *"Originary interest is the fundamental spread between the value of an end and the value of the means that serve to attain this end."*[26] As reason for the fundamental value spread he mentions the fact

> *that the purpose of employing a means can only be to attain the end. The end is what really counts for the acting person, whereas the means is merely the thing or the action*

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23 Shapiro (1974, p. 238)

24 See Pellengahr (1996, p. 63).

25 See Hülsmann (2002).

26 Ibid. (p. 87, emphasis by Hülsmann)

that is in between his present state of affairs and the state of affairs in which his end is realized. [...]

[I]t follows from this fact that, by their very nature, ends have, in the eyes of the acting person, a higher value than the corresponding means.[27]

In the following five pages Hülsmann explains why this fundamental value spread has been ignored so far.[28] His main point is that "it did not square with mainstream views on value and value imputation."[29] According to him, even most Austrian economists, following the lead of Carl Menger[30], have explicitly or implicitly assumed that the value of the ends "is fully imputed on the means,"[31] thereby not leaving any value spread that could explain the existence of originary interest.

By claiming this, Professor Hülsmann does not totally do justice to these authors. It is true, even Mises declares that "the value attached to a product is *equal* to the value of the total complex of complementary factors of production."[32] But it is too much to say, in reference to this statement, "that Mises, at least occasionally, did champion value imputation and that he therefore believed there was no value spread between means and ends."[33] For Hülsmann neglects a very important part of the sentence he himself quotes. Mises only holds this equality between means and ends with "due allowance being made for time preference."[34] We see that Mises actually pays attention to the value spread between means and ends. This can be seen even better in the following passage:

The prices of consumers' goods are by the interplay of the forces operating on the market apportioned to the various complementary factors cooperating in their production. As the consumers' goods are present goods, while the factors of production are means for the production of future goods, and as present goods are valued higher than future goods of the same kind and quantity, the sum thus apportioned, even in the imaginary construction of the evenly rotating economy, falls behind the present price of the consumers' goods concerned. This difference is the originary interest.[35]

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27 Ibid. (p. 86 f.)

28 See ibid. (pp. 88-92).

29 Ibid. (p. 88)

30 See Menger (1871).

31 Hülsmann (2002, p. 89).

32 Mises (1949, p. 332, emphasis added)

33 Hülsmann (2002, p. 89)

34 Mises (1949, p. 332)

35 Ibid. (p. 521)

The difference between Mises and Hülsmann is the cause to which they assign the spread between means and ends. Mises thinks that the cause is time preference, the fact that "present goods are valued higher than future goods of the same kind and quantity." For him, this relationship is fundamental. Hülsmann thinks that the spread between means and ends is fundamental and independent of the time factor.

If originary interest is defined, after Professor Hülsmann, as the value-spread between means and ends, two things are essentially needed as given (or at least determinable). These are the value of the means and the value of the ends. This is the weak spot of Hülsmann's theory of interest. The problem with his argument is the lack of an explanation of how the value of the means is derived. Without the latter one cannot say anything about the nature of the value-spread between means and ends. In addition, when originary interest is to be the *fundamental* value spread between means and ends, it is necessary that the value of the means is determined in a way independent of originary interest. It would be a logical circle to explain the value of the means as depending on originary interest, and then declare that originary interest depends, next to the value of the ends, on the value of the means. Now, Hülsmann himself provides the following explanation as to the value of the means:

> *If a means is ever chosen, then the only purpose of this choice is to attain the end it serves. The very nature of a means implies that it is not sought for its own sake.*[36]

Thus the value of the means depends on the value of the end it serves. It is not valued for its own sake. In consequence, before the fundamental value spread between means and ends can be explained, first of all the value of the means has to be clearly derived. And this can only be done by the help of (1) the value of the end, and (2) something in addition. Behind this 'something in addition', however, "lurks implicitly the rate of interest itself."[37] Hülsmann is trapped in a logical circle. He does not provide for an explanation of the value of the means that does not presuppose originary interest.

Yet, Professor Hülsmann's attempt to explain originary interest praxeologically does not consequently have to be dismissed. His critique of Mises's statements of time preference as the source of originary interest remains valid. Time preference as the reason of a value-spread between different ends (present and future ones) is a historical, not a theoretical explanation. The explanation of originary interest has rather to be looked for in the logic of action itself, and this is what Hülsmann has done. But, as was shown above, in his theory the means derive their value from the ends they serve in combination with an already existing originary interest. Contrary to his opinion, the value-spread between them is not self-explanatory. The value-difference between means and ends must *not be seen as explanans, but as an explanandum.*

36 Hülsmann (2002, p. 87)

37 Fisher (1930, p. 55)

5. THE VALUE-SPREAD BETWEEN PSYCHIC COSTS AND PSYCHIC REVENUES

5.1 THE TECHNICAL VS. THE ECONOMIC POINT OF VIEW

Both theories mentioned so far each contain a fundamental truth. The time preference theory looks for originary interest in the relationship between two goods that are both valued independently of each other: a present good on the one hand, and a future good on the other. However, it is *deterministic.* It does not try to find originary interest in the *logic of action, but in contingent preferences.* Professor Hülsmann's theory has it the other way round. It correctly looks for originary interest in action, but does not consider that the value spread between means and ends is not fundamental but presupposes originary interest.

If there should happen to exist a fundamental value spread in human action over time, it must be found between two goods that are valued independently of each other. The value of the means employed cannot therefore be taken as part of the explanation. Man does not compare the means with the ends and then only acts insofar as the ends seem more valuable to him than the means he has to give up. That one needs the means A, B, and C in order to produce the consumer good D is *a technical, not an economic problem.*[38] In order to become an economic one, there would have to be a trade-off between the means and the end.[39] To employ the means, e.g. exchanging them, destroying them in production etc., however, does not mean to sacrifice them. There is no trade-off. It is the way they fulfil their destiny.[40] They *have* to be employed this way; they have to be used up – it is part of their *technical* function in production. Otherwise, their existence is good for nothing. To be true alternatives, the options the acting person faces must both be directly valuable to him. The problem that constitutes the subject matter of this chapter is to find these true alternatives that are both valuable to the acting person, and also to find the reason for the supposed value spread over time between these two. It is there that the reason for originary interest, if it should happen to exist, has to be looked for: *between something foregone in the present and something obtained in return in the future*, i.e. between what is given up in the present and what is obtained for it in the future.

38 See Plenge (1964, pp. 123 f.) and Liefmann (1923, p. 539).

39 See Liefmann (1923, p. 334).

40 Similarly ibid. (p. 557).

5.2 COSTS AS SACRIFICE OF POTENTIAL WELL-BEING

If the means one employs in action do not represent a sacrifice, is there a cost at all? Are action and production – we use both terms synonymously[41] – costless? Of course not. However, when man wants to obtain an end in the future he has to employ not only means of production like labour and instruments, but also something in addition. Between the setting in of any action and the attainment of the end sought there always elapses a fraction of time.[42] This time could well have been used to enjoy leisure.[43] If one uses this time to attain another end instead, one sacrifices the present enjoyment of leisure.[44] Time is available for every free man and not enjoying it as present leisure time definitely can be called a sacrifice – if we assume leisure to be a consumer good.[45] If leisure was not a consumer good, its employment in attaining future ends would not be a sacrifice. The relationship between its employment and the aspired ends would become a mere *technical one. Costs only arise whenever one has to abstain from consumption in order to attain one's end*. This does not only hold for leisure time, but for all sorts of consumption goods that cannot be consumed because of other ends pursued in action.

The forgoing of consumption is the sacrifice that we are looking for. In contrast to means or producer goods, consumer goods are valued by the actor even if they are not employed to attain different ends. That is why the actor considers them as consumer goods, i.e., as ends themselves. And not consuming them because of his actions is a sacrifice. Without this action they could have been consumed.

Notice that we are not employing the concept of opportunity costs here. Instead, we follow George Reisman who shows that this concept only refers to the fact that one has to choose between several alternatives. We refer the interested reader to his exposition. He argues that "[t]he doctrine of opportunity cost is not required for ascertaining how one might do better. Its sole contribution is obfuscation, not perception."[46] Furthermore, we do not try to make costs "objectively determinable."[47] This point has been raised against other theories that oppose the opportunity cost doctrine.[48] The adherents of the latter maintain that these theories lack the understanding of the fact that costs can only be felt by the person deciding and, therefore, are a subjective phenomenon.[49] This critique does not affect our

41 See e.g. Fillieule (2010, pp. 89 f.).

42 See Mises (1949, p. 476).

43 See Kirzner (1963, p. 145).☺

44 See Salin (1990, p. 16).

45 According to Rothbard ([1962] 2004, p. 43), leisure can generally be considered as a consumers' good.

46 Reisman (1998, p. 460). Also Huerta de Soto (2009) most of the time does without the opportunity cost concept.

47 Buchanan ([1969], 1999, p. 24)

48 Ibid. He especially thinks of the classics (pp. 37 ff.) and welfare economics (p. 49).

49 Baxter/Oxfeldt (1968, p. 307), see also Thirlby (1946, p. 33) and Mises (1949, p. 393).

notion of costs. The sacrifice of a consumer good is also subjectively felt. We do not claim to be able to measure the size of the sacrifice. It is a *psychic magnitude* that is connected to the consumer good that is given away. At this, what is and what isn't a consumption good is determined by the acting person.

5.3 PSYCHIC PROFIT

We come to the conclusion that, in evaluating human action, two things are essential: on the one hand, the consumer goods that one wants to attain in the future. The utility derived from these goods will be called *psychic revenues.*[50] On the other hand, there is the potential consumption that one has to sacrifice in order to obtain the psychic revenues. This sacrifice causes *psychic costs*.

Now, in order to interrelate these two with each other, we have to draw on an aspect of human action which is commonly accepted by economists. It says that people only act insofar as they think to improve their situation. "[A]ll acting is invariably induced by one motive only, viz., to substitute a state that suits the actor better for the state that would prevail in the absence of this action."[51] Or more succinctly: "The objective of all human action is to produce value."[52] It is not difficult to apply this insight to the problem at hand. By acting a person demonstrates that he values the aspired consumer goods more than the consumer goods he sacrifices. In the words of Huerta de Soto: "The actor is only willing to sacrifice his immediate consumption [...] if he thinks that by doing so he will achieve goals he values more."[53] The difference between the psychic revenue and the psychic costs we will call psychic profit.[54]

It seems necessary to mention that *the consumer goods in question are not, as in the time preference theory, "of the same kind and quantity."* We do not maintain a necessary relationship between present and future goods that somehow prevails in human preferences. *Preferences are not predetermined. What can be said, however, is that in actual action the acting person reveals that his preferences, at this moment and in this place, are constituted such that the good he is striving for is worth more to him than the costs he has to incur.* So our analysis holds true also for someone who sacrifices ten apples of high quality today in order to get one apple of low quality next month. *As long as this person acts this way* we know that, to him, the bad apple tomorrow is worth more than the ten apples today.

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50 See Rothbard ([1962], 2004, pp. 71 f.).

51 Mises (1962, p. 77), also Rothbard ([1962] 2004, p. 19).

52 Salin (1991, p. 10)

53 Huerta de Soto (2009, p. 276), similarly Kellenberger (1916, p. 92).

54 See Rothbard ([1962] 2004, p. 20).

5.4 THE PRICES OF THE FACTORS OF PRODUCTION

We are now able to explain how the psychic profit that we have found to be a necessary part of human action is reflected in the prices of the factors of production. For the time being, we abstract from the existence of money. The monetary rate of interest that manifests itself in the money price differential between the means of production and the consumer goods will be explained in chapter eight.

To recall, originary interest is the price spread between the factors of production and the consumer goods they produce that remains even in equilibrium. On first sight, the factors of production are only of *technical* importance. In order to build a house, one needs wood, bricks, three hundred hours of labour, etc. *Economically*, these producer goods concern the acting person only insofar as he has to sacrifice potential consumption, i.e., incur psychic costs, in order to employ them. For example, if he has to work himself, he has to abstain from enjoying leisure. If he also employs other production factors, be it labour services of other people, capital goods, or land, he probably has to pay a *price* for them, that is, some sort of good. *This price is what he has to trade off against the good he wants to obtain, not the paid services or goods themselves.* If the price he has to pay should happen to have no value to him as a consumer good, we are back to a technical relationship between means and ends. In this case he has to pay the price, yes, but so what? It does not cost him anything. An economic relationship would only be at hand if he eventually has to sacrifice a *consumer good* in order to obtain the good constituting the price in the first place. The important relationship is the one between costs and revenues, and not between means and ends. And costs mean consumption sacrifice.

The price of a means of production *reflects* the consumption sacrifice that was necessary to obtain it. Thus, the value-spread that we have discovered in human action between sacrificed and obtained consumer goods, i.e., psychic profit, is transferred to the relationship between the price of the means and the attained end. By giving away a consumer good in order to get a means of production, an actor demonstrates that the end that this means serves to attain is worth more to him than the consumer good he has given away. In other words, in human action, the future consumption good is valued higher than the price of the means.

5.5 PSYCHIC PROFIT IN EQUILIBRIUM

From the logic of action results our knowledge of the value-spread between the consumer good sacrificed today and the consumer good attained in return in the future. We know that this spread exists at least in the mind of the acting person, as the latter would not act if it didn't exist. This value spread is, however, not yet the originary interest that we are looking for. It is merely psychic profit.

> *The difference between the value of the price paid (the costs incurred) and that of the goal attained is called gain or profit or net yield. Profit in this primary sense is purely*

subjective, it is an increase in the acting man's happiness, it is a psychical phenomenon that can be neither measured nor weighed.[55]

Now, in some areas it will be much more advantageous to act than in others. The psychic profit will differ from person to person and from action to action. In a market economy, however, where goods are traded on markets and competition prevails, entrepreneurs are "intent upon profiting by taking advantage of differences in prices,"[56] in our case between the costs and the resulting revenues. "They buy where and when they deem prices too low, and they sell where and when they deem prices too high."[57] In this way, the price spread between the costs and the revenues aimed at will diminish until, in the final state of rest, it nearly disappears.[58] However, even in equilibrium nobody would act without expecting to profit from his action. Notwithstanding the competition, a spread will remain between the price of the means and the end. It is closely related to what we have called originary interest.

We have therewith traced back a price spread in equilibrium to an underlying value-spread between two goods that are both valued for their own sake. Of course, as we have not yet introduced money, it is impossible to express the difference between costs and revenues in any meaningful numbers.[59] When costs consist in leisure time and the revenue in apples, we cannot tell anything about the size of the "profit," even in the final state of rest. To express this spread in numbers and to call it "originary interest" it is necessary for costs and revenues to have a common denominator, for example money prices. However, even without such a denominator, we know that a spread must be there as long as people act and produce.

6. THE TIME SPAN BETWEEN COSTS AND REVENUES

On the one hand, costs precede revenues, and on the other hand, the acting persons expect the revenues to be worth more to them than the costs. With these results, we will be able to explain the existence of originary interest once we introduce money prices. However, another aspect of originary interest has been neglected so far. Any theory of originary interest has to account for the fact "that interest can never be calculated otherwise than

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55 Mises (1949, p. 97). We fully agree with this statement, as far as it goes. The reader should keep in mind, however, that Mises generally has a different notion of cost in mind, i.e., opportunity cost.

56 Ibid (p. 325)

57 Ibid.

58 See ibid (p. 331).

59 See Liefmann (1925, p. 147).

with the formula capital multiplied by time multiplied by interest rate. Therefore, also the emergence of interest as costs of the capital-using production must somehow have something to do with time."[60] In other words, *why is it that the price spread between costs and revenues becomes larger the longer the time span between the two becomes?*

If one is to look for the reason of the *rate* of originary interest, the fact that every actor aims at the improvement of his situation by getting a surplus of his revenue over his costs does not suffice. It is impossible to explain with the help of this proposition why interest payments increase with time. The interest rate is calculated as percent *per annum*. If originary interest is somehow to be explained by the logic of human action, an analogous interrelation must be shown to exist in the latter as well, i.e., an increase of psychic profit with the passing of time. In terms of Professor Hülsmann's terminology, this theory would have to explain why the value-spread between means and ends grows larger the longer the period between the two gets. In our terminology, it would have to explain why the subjectively felt value-spread between costs and revenue grows larger the longer the action endures. If such an interrelation between the passing of time and action could be deduced, the basis for the explanation would have been found as to why interest rates are calculated per annum, i.e., per period of time.

Traces of such a theory can be found in the works of some Austrian economists. It is important to realise that the time preference theory of interest is not always expounded entirely homogeneously. Rothbard and Huerta de Soto do not consistently define time preference as a value-spread between ends at different points of time. Instead, according to Rothbard, "with any *given end* to be attained, the shorter the period of action, i.e., production, the more preferable for the actor. *This is the universal fact of time preference*. […] *The less waiting time*, the more preferable it is for him."[61] Now, in the end, this slightly different formulation does not change the general argument of these authors at all. Its implication, both authors seem to think, is just the same as Mises's notion of time preference criticised above. Says Professor Huerta de Soto: "[T]o put it even more briefly, other things being equal, 'present goods' are always preferable to 'future goods.'"[62] Also Rothbard and Huerta de Soto both see time preference as a *preference* of one good or end over another one. Unfortunately, they equate the notion that man prefers a shorter period of action, or wants to attain his end as fast as possible, with the alleged higher valuation of present goods as compared to future goods.[63] *As has been shown by Hülsmann, the value difference between present and future goods does not exist by necessity. It is not a praxeological law*. Consequently, it cannot be used to substantiate the claim that man always wants to act as fast as possible, i.e., to attain his end in the shortest possible period of time.

60 Strigl (1935, p. 210)

61 Rothbard ([1962] 2004, p. 15, emphasis by Rothbard). The same thought can be found in Huerta de Soto (2009, pp. 269 f.).

62 Huerta de Soto (2009, p. 270). See Rothbard ([1962] 2004, p. 15, n. 15) for a similar statement.

63 See also Hoppe (1983, p. 67).

The first part of their argument, however, seems to lie closer to our own opinion. They seem to try to explain time preference independently of the concrete content of ends, out of the pure logic of action itself. This becomes clear in the above quoted statement by Rothbard that "the shorter the period of action [...] the more preferable for the actor." However, if a praxeological explanation of originary interest should happen to exist, the claim that man always prefers a shorter period of action must be capable of being deduced from *a priori* valid axioms. In this case, the claim would be neither verifiable nor falsifiable, just like the proposition that action is the application of means to attain ends. Rothbard and Huerta de Soto have not provided us with the said deduction. And, as the still ongoing debate demonstrates, neither has anybody else, or, at least, the argument has not yet been formulated in a way to be self-evident. What is to be tried here is to find a formulation of the nature of the relationship between action and the passing of time that accords to Mises's dictum: "[T]he characteristic feature of a priori knowledge is that we cannot think of the truth of its negation or of something that would be at variance with it."[64]

"As far as man acts he acts in the shortest way possible" is neither self-evident, stated like this, nor does it follow obviously from a self-evident axiom. That is why the meaning of this sentence shall be clarified in the following discussion.

That man acts to achieve his ends in the shortest time possible is knowledge that is placed in our mind as we are, as Mises would say, acting and thinking beings[65] ourselves. We are acting beings ourselves, and therefore we cannot accept the fact that somebody else is acting in a categorically different way than we do. As Mises says,

> *[F]or the comprehension of action there is but one scheme of interpretation and analysis available, namely, that provided by the cognition and analysis of our own purposeful behavior.*[66]

Thus, if my assertion is correct and one indeed cannot help acting in the shortest time possible, it follows that one expects others to do the same. If, for example, we observe another person who does not seem to act as fast as possible, we automatically look for a *logical explanation* for this observation. We do not accept the fact *per se* because we are humans and cannot imagine a human not trying to attain his ends as fast as possible. *And we can only explain the fact that somebody does not try to attain his end as fast as possible by automatically assuming that he prefers to strive for another end at the same time.*

The point can be illustrated by an example from physics. Gravitation is recognised by man. If a ball one lets go of falls to the floor, one does not look for a special explanation for this observation. One counts on the law of gravitation to work, no matter whether one

64 Mises (1962, p. 18). See also Mises (1949, p. 34) and Hoppe (1995, pp. 22 ff.).

65 See Mises (1949, pp. 23 ff.).

66 Ibid. (p. 26)

has heard of the law before or not. Now, if the ball didn't fall downward but to the left, one would not assume that the law of gravitation has somehow stopped. Instead, *one would look for a reasonable explanation for this observation.* It is the same with the proposition that man acts in the shortest period possible to him. If someone appears to behave differently, we automatically look for a logical explanation for this fact. We do not accept it *per se*.

Propositions like this cannot be proved – they are synthetic and *a priori*. "Synthetic a priori propositions are those whose truth-value can be definitely established, even though in order to do so the means of formal logic are not sufficient (while, of course, necessary) and observations are unnecessary."[67] The best that we can do is to consider the arguments that will probably be put forward against it. It is to be hoped that the point will become clearer throughout this discussion.

First of all, some might argue that the opposite proposition could be defended by the same token. Man, one might say, always acts as *slow* as he can, and if he should happen to act faster, then it is only because he has other ends in his mind that induce him to accomplish the first one a little earlier. Against this argument one can consult one's inner experience. If we watch somebody doing something very slowly, we are, in order to explain this fact, automatically looking for reasons that are lying outside the realm of what we see him doing. He might be lazy or tired, he might try to look cool, be lost in thought, or whatnot. Yet, we would never say that he is acting slowly for no reason. It must be because the acting person is not only striving for one end, but for several ones. On the other hand, when we see someone acting very fast, we are not looking for an explanation that lies outside the realm of what he is doing at the moment. What we would say is: Yes, this person is very eager to attain his end! He even disregards other ends, like preserving a good image, not getting exhausted, or whatever, that others might not disregard in his situation. *In any way, acting extremely and unusually fast can be explained by the fact that the actor has no or only few other ends in mind, but obsesses about the one he is striving for right now.* No further explanation is needed than that he really wants to do what he is doing now, and that nothing else is important to him. *Only when someone is acting more slowly than he could we know that there must be something else, another end that hinders him from eagerly striving for the first one.*

A second argument that will probably be produced against our proposition is that there are countless cases where people are acting slowly or are letting time lapse before they even start to act. Someone who has to bake a cake by the end of the week, one might argue, will not produce it on Monday, but will possibly wait until the day when he has to deliver it. Doesn't this prove that, very often, people do not act in the shortest possible time? Yet, what these deliberations prove is simply that, very often, people have several ends in mind. The baker in the example does not only want to bake a cake, but to bake a cake that is ready at the end of the week. Probably he also wants this cake to be fresh and tasty, and therefore he will bake it just in time. What we do know is that man will not wait or act slowly for no reason. *We know, a priori, that man cannot arbitrarily choose to not act as fast as possible.*

67 Hoppe (1995, p. 18). See there for further methodological details

7. PROBLEMATICAL ACTIONS

7.1 COINCIDING MEANS AND ENDS

Some further possible counter-arguments have to be considered before we get to explain monetary interest in chapter eight. First of all, what about actions that are pursued because they are valued themselves, i.e., what about those cases when means and ends coincide with each other? An example would be a piano player who enjoys playing the piano. A slightly different one would be the case where he plays not for himself but for a friend. Here means and ends still coincide, yet can easily be distinguished. By the way, the coincidence of means and ends cannot at all be regarded as a special case as one might think. In every act of consumption, like eating, drinking, playing games, means are employed to attain a coinciding end.[68]

As long as the action in question takes a *period* of time it does not pose any problems to our theory. Other things equal, the piano player will play his piece of music as fast as possible. If he does not play it quickly, it is not because of an inborn low time preference rate. We know, instead, that there must be a specific reason for it, that the piano player must have another end in mind in addition to simply "playing this piece of music." Probably the music sounds more enjoyable when performed more slowly, or it can be learned more easily this way. We couldn't explain the observation without being aware of a logical reason. So for these cases as well, our statement holds that the subjectively felt reduction of dissatisfaction is larger the longer the action endures. Otherwise, the actor would choose shorter paths of action.

The point is more difficult in cases of action that appear to have no time dimension. Hülsmann mentions spot market exchanges as an important example for actions that provide an agio for the parties involved yet have no time dimension.[69] He writes about coincidences when means and ends "coexist at the same *point of time*."[70] If he was correct, we would have to admit that the passage of time in action is not "the only determining factor, but merely one out of two causes operating to the same effect",[71] i.e., the reduction of dissatisfaction by action. There would be a value-spread between means and ends at a point in time. This could not be explained by our rate of originary interest that links the increase of value to the passage of time.

To illustrate his point that there can be a value-spread between means and ends, even if both coincide *and* do not extend in time, Professor Hülsmann uses the example of a barter exchange between two parties:

68 See Barnett/Block (2007, p. 130)

69 See Hülsmann (2002, p. 92 ff.).

70 Ibid. (p. 94, emphasis added)

71 Ibid. (p. 92)

> *Any contractual agreement is made at a point of time, namely, at the point of time when both partners have agreed on the terms of the exchange. By its very nature, choice, in the sense this term is used in economic theory, is made at points of time rather than throughout a process. And because a market exchange involves the decisions of at least two people, the exchange becomes effective only when the last partner has made the decision to cede the title to his property in order to acquire title for another piece of property.*[72]

This way of stating the argument takes the effect for the cause. It is surely correct to regard a person's choice as evidence for this person valuing the option he chooses higher than the one he does not choose. So if A hands over an apple to B in order to receive a tomato in exchange this obviously tells us that A and B both think to reduce their subjectively felt dissatisfaction this way. However, they do not achieve this by merely deciding to do so, or by contracting accordingly. *These* events indeed happen at points of time, not in periods of time. Yet, the parties improve their situation only if the exchange actually proceeds. And an exchange definitely requires at least one of them to act. And, different from decisions, an action cannot take place at one *point of time*. It extends in time.[73]

The choice to act in a specific way is only the consequence of an actor appreciating this way of action as being of advantage to him. The advantage, however, must be brought about by action, i.e., by a process that has a time dimension. At the instance of the decision one only chooses between different possibilities of action that *could* — if actually executed — decrease dissatisfaction.

7.2 DURABLE MEANS

Another problem arises because some means do not wear off by the attainment of a single end. They can be used to achieve several of them. Accordingly, it happens very often that someone employs a means that costs much more than the end it serves at the moment. This observation seems to contradict our theory of originary interest because, in these cases, the actor does not value the end more than the price of the means. The following lines will show, however, that this point does not pose any serious problems to our approach.

To give an example: it is impossible to deduce from the observation of someone eating dinner with golden dishes that this person values the meal (his end) more than the golden dishes (means). The dishes do not disappear because of the meal. Our gourmet only parts with the money he spends for the food, and, possibly, some milligrams of the gold in so far as the dishes wear off a little bit. After all, the dishes are available to be put to further uses after dinner in pretty much the same condition as before dinner. There can only be a value-spread between the end on the one hand and that part of the means perished during the

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72 Ibid. (p. 95)

73 See Rothbard ([1962] 2004, p. 4).

attainment of this end on the other. If the dishes were indestructible, the notion of a value-spread between the dishes and the meal would become meaningless.

Important for our analysis is not the price of the means employed, but the price of that part of the means that has been used up in action — accountants call this the write-off. To stay in our example, the meal does not have to be worth more than the cost of the dishes, but only than the cost of that part of the dishes that wore off during the meal. At least the person employing the golden dishes thinks so; otherwise he would not employ them.

8. THE MONETARY RATE OF INTEREST

Finally, we are able to explain the emergence of a monetary rate of originary interest as the result of the logic of action. That businessmen orientate their actions by money prices and try to obtain an excess of monetary revenues over monetary costs is nothing more than a corollary of what has been said about action in general, namely that it implies an expected excess of psychic revenues over psychic costs.[74] This latter characteristic of human action, we have seen, lies behind what has been called psychic profit in equilibrium. Now, as far as this psychic phenomenon is concerned, it does not manifest itself in an observable way. As laid down by Hülsmann, it "is not a manifestation of human action in the world of physical things, but a structural feature of human action itself."[75] We know that there must be a value-spread between costs and revenues, but it cannot be demonstrated empirically, as psychic magnitudes defy measurement. In a monetised market economy matters stand differently. There, costs and revenues are

> *physically homogeneous to the point that one can calculate a quantitative difference between the two, that is, between monetary proceeds from selling a product and monetary expenditure for the corresponding factors of production.*[76]

As money could be held in cash balances without physical deterioration if it were not invested, we know for sure that the expected price-spread between the costs and the revenues of investments must be expected to be positive. It would be "absurd"[77] to invest it without the intention to make monetary profit or, in Marxian terminology, a "surplus value."[78]

74 The same idea is expressed by Hülsmann (2002, p. 93) in terms of means and ends.

75 Hülsmann (2002, p. 97)

76 Ibid. (p. 93, similarly on p. 96). Hülsmann, however, refers to means and ends, not to costs and revenues.

77 Marx (1967, Vol. 1, p. 162)

78 Ibid. (p. 165)

Furthermore, following our discussion on human action in general, the monetary profit that is expected from any investment must increase with the time spread between the incurrence of costs and the attainment of revenues. If there are two investment options with no difference in risk which both promise to return 110 monetary units to an investment of 100, other things being equal, of course that option which takes a shorter time is preferred. A longer time-spread between costs and revenues is only accepted if the expected monetary reward is augmented enough.

Now, the existence of money prices not only makes visible the spread between monetary costs and revenues. It also makes the plans of businessmen homogeneous in that they are all striving for monetary profits. So if some entrepreneurs make high money profits in a special kind of business, other market participants will lower them "by entering the same business, thus bidding up the prices of the required factors of production, and bidding down the prices of the product."[79] Entrepreneurial competition will tend to erase the differences that exist in the monetary profit rate in different lines of business.[80] Competition will thereby tend to adjust the profit rate to the length of the investment. A doubling of this length will bring about a doubling of the rate such that the rate *per period of time* tends to become equal. In the words of Rothbard, if this rate should happen to be five percent *per year*, "[a] production process or investment covering a period of two years will, in equilibrium, then earn 10 percent, the equivalent of 5 percent *per year*."[81]

The rate of profit *per period of time* that remains despite the tendency of competition to eliminate profits can be called *originary interest* or, if one wishes, the *market rate of interest*. We know from our analysis that the price spreads that correspond to this rate "do not come into being by accident." Rather, they are the "premeditated result of entrepreneurial action."[82] Businessmen only act insofar as they expect the monetary revenues to be higher than the costs.[83] This difference "cannot be arbitraged away."[84] Thus, there will always be a positive market rate of interest in terms of money.[85]

The height of this rate of originary interest is determined by the actions of those who invest money. The more they invest, the higher will be the prices of those goods they invest in, i.e., the originary factors of production and production goods, and the lower will be the prices of the goods that constitute the final output, as their supply will increase. Thus, the more people invest, the lower will be the spread between costs and revenues. Entrepreneurs have, it is true, different minimal spreads between costs and revenues that they are willing

79 Hülsmann (2002, p. 98)

80 See Mises (1949, p. 533), Fillieule (2005, p. 5).

81 Rothbard ([1962] 2004, p. 372. emphasis by Rothbard)

82 Both quotes from Hülsmann (2002, p. 93).

83 See ibid. (p. 98).

84 Ibid. (p. 93)

85 Ibid. (p. 99)

to accept. But these differences can be smoothed out.[86] Those who would accept a smaller rate of profit than the one prevailing on the market will gladly accept the latter. Those who demand a higher one will cease investing.

9. THE PRODUCTIVITY OF ROUNDABOUT PRODUCTION PROCESSES

In the foregoing analysis we have obtained two results:

1. man acts to render conditions less unsatisfactory
2. man acts in the shortest possible period of time

These two propositions allow us to understand the phenomenon of originary interest. In the following pages, it will be shown that they can also explain a phenomenon that has gained a lot of prominence within the Austrian School. Although Böhm-Bawerk criticises all kinds of productivity theories at length in his *Geschichte und Kritik der Kapitalzins-Theorien,*[87] he himself mentions as the famous third reason of interest the higher *physical* productivity of time-consuming roundabout production processes.88 Unsurprisingly, his theory has been attacked several times by eminent scholars. It is held that it falls prey to the very same criticism Böhm-Bawerk expounds against former productivity theories.[89] It cannot explain why the value of the consumer goods is not fully imputed to the production factors.90

Nonetheless, Böhm-Bawerk's productivity theory is based on a correct observation. More roundabout processes of production indeed *are*, as a rule, physically more productive than shorter ones. Let it be understood, we do not maintain that all theoretically possible roundabout ways of production are more productive than their shorter counterparts. Of course, there are roundabout ways that are totally unproductive, and short production processes that are highly productive. This point is hinted at by John Maynard Keynes:

> *It is true that some lengthy or roundabout processes are physically efficient. But so are some short processes. Lengthy processes are not physically efficient because they are*

86 Ibid.

87 See Böhm-Bawerk (1921a, pp. 103–170).

88 See Böhm-Bawerk (1921b, p. 339).

89 See e.g. Wicksell (1893, p. 87), Mises (1949, p. 486). Also Kirzner (1996, p. 127), Pellengahr (1996, pp. 11 and 21), and Fillieule (2010, p. 123).

90 See Pellengahr (1996, p. 17), Dorp (1931, p. 293).

> *long. Some, probably most, lengthy processes would be physically very inefficient, for there are such things as spoiling or wasting with time.*[91]

Anyway, it is not from the observation of the higher physical productivity of the more roundabout ways of production that interest can be deduced. It is the other way round. Because we know that all human actions fulfil the two propositions stated above, we know that longer production processes actually chosen are, as a rule, physically more productive than shorter ones. First of all, we know that every production process has to be regarded as being productive in a *subjective* sense, that is, from the point of view of the producer himself. Otherwise, he wouldn't think this production to render conditions less unsatisfactory than they would have been without it, i.e., to lead to revenues that surpass costs, and consequently he would not undertake it. In the words of Eduard Kellenberger, the "much disputed productivity" in question "in the end rests upon the *insight* of the people."[92] Furthermore, it is clear from the second proposition that the person wants his production process to be accomplished in the shortest possible time. If he nonetheless chooses a longer production process, we can be sure that there must be a reason for it. It *might* be that it is more productive *physically*. Then it brings forth *more of the same good* than a shorter process does. But it might also be that it brings forth *different goods that are more valuable* than the goods that can be produced in shorter processes; or that the longer production processes make it possible for the producer to strive for *further ends, like leisure*, in addition to the goods he produces in his production process.93 The only one who knows the reason is the actor himself. What should be clear is that he only chooses longer or more roundabout processes of production if they appear *to him* to be more productive.[94] As Kellenberger notes, it is not correct

> *to understand by physical productivity the production of* ***more*** *or better – more useful – goods as if the adjectives 'better' and 'more useful' had an absolute meaning, a meaning which was independent of man; as if it wasn't the appreciation of man that the judgment concerning what is better or more useful depends. All that 'better' and 'more useful' can signify is 'suited better,' that is, 'more valuable' for* ***special purposes****. [...] Therefore,* ***the deliberate and purposeful production of better and more useful goods is, from the start, value production and not physical production****.*[95]

91 Keynes (1936, p. 214)

92 Both quotes from Kellenberger (1916, p. 86, emphasis added).

93 See Fillieule (2010, p. 95).

94 See Huerta de Soto (2009, pp. 269 f.) for a similar point.

95 Kellenberger (1916, p. 91, some emphasis added)

So the higher physical productivity of more roundabout ways of production is not the (or leastwise one) reason for the existence of interest. Instead, "every purposeful production of goods is *ex ante psychic or value production*."[96] The higher physical productivity of most of the actually employed roundabout ways only *follows from the fact that they are necessarily expected to be of higher value productivity*, and the latter results from the two propositions developed above, i.e., from originary interest.

Böhm-Bawerk himself somehow is conscious of the problem described here. He acknowledges that there is nothing in longer ways of production *per se* that could account for the higher physical productivity. That is why he sometimes – not always – confines the higher productivity only to those longer processes that are *wisely chosen* ["*klug*" or "*geschickt gewählt*"].[97] In other words, it seems that he tries to deduce the higher productivity of more roundabout processes from human action from the fact that people purposefully pursue those projects that produce value.[98] Yet, he does not think that it is *necessarily* the case that humans choose "wisely". If he had realised that his doubt is only reasonable *ex post* and that, *ex ante*, everybody acts in a way he thinks proper to produce value,[99] or, as Walter Eucken terms it, in a "rational" way,[100] his point would correspond to our notion of originary interest.

The analysis of originary interest as presented above also helps to understand some popular examples given to illustrate the productivity of time or waiting. Wine[101] or wood[102] are very often[103] mentioned as goods that increase in value by the mere passage of time.[104] But one has to realise that there is an indefinite number of instances where time just works in the opposite direction and has a destructive influence on things. Milk, fruits, vegetables, meat, and even wine and wood can – if one waits too long – lose their value to man completely by the passage of time. It is not true without qualification that "wine [...] becomes the longer it is stored."[105] Again, it is not the productivity of time or waiting from which stems the interest phenomenon. Instead, we know from the propositions derived above that time apparently is productive in the actual production of wine and wood.

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96 Ibid., emphasis added.

97 See for example Böhm-Bawerk (1921b, pp. 16, 111, 115, and elsewhere), and Böhm-Bawerk (1921c, p. 2). Strigl (1934, p. 81) uses the same terminology. Böhm omits the idea of "wisely chosen" processes in 1921b (pp. 121, 146, and elsewhere). See also Fillieule (2005, p. 6; 2010, p. 96).

98 See Lutz (1967, p. 13).

99 See Rothbard ([1962] 2004, p. 277).

100 Eucken (1954, p. 69)

101 See Rothbard ([1962] 2004, p. 14), already James Mill (1844, p. 102).

102 See e.g. Eucken (1954, pp. 72 f.).

103 See Lutz (1967, p. 11).

104 Kirzner (1996, p. 139) provides further examples from the literature.

105 Stackelberg (1944, p. 31)

10. CONCLUSION

The purpose of this paper was to show that the reason for the interest phenomenon has nothing to do with preferences. Instead, originary interest can be explained as the result of two propositions concerning the logic of action. According to the first one, men act to render circumstances less unsatisfactory. According to the second, men always want to attain their ends as fast as possible. The combination of both has brought us to a praxeological explanation of originary interest. It has also been shown that the earlier attempt in this direction by Professor Hülsmann has not been entirely successful.

A value-spread over time can be found in every human action, no matter whether we look at goods of the same kind and quantity or not. It is true, it totally depends on the preferences of the actors which goods they consider to produce psychic revenues or psychic costs, and how they balance them against each other. Yet, nothing can be said about these preferences in advance, and they are surely not predetermined in the way maintained by the time preference theory. The results of our investigation indicate that the term "time preference" should be abolished as a *praxeological* category. It should be substituted by the two propositions presented in this paper. "Time preference" might well continue to serve as an expression describing human characteristics, just like the expressions industry, quickness, or laziness do. However, it is not suited for the praxeological deduction of interest.

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MISES ON FRACTIONAL RESERVES
A REVIEW ON HUERTA DE SOTO'S ARGUMENT

NICOLÁS CACHANOSKY[1]

ABSTRACT

The interpretation that Mises preferred banking with a 100% reserve requirement finds strong support in Huerta de Soto's Money, Bank Credit, and Economic Cycles. This article seeks to review his arguments concluding that it is in fact more feasible to interpret that Mises preferred free banking with fractional reserves to the 100% reserve requirement.

KEYWORDS: free banking, fractional reserves, Ludwig von Mises

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1. INTRODUCTION

In the debate between free banking with fractional reserves versus banking with a 100% reserve among Austrian economists, special attention is given to Mises' opinion on this topic. This is, of course, a different debate from the one asking which one of these two systems is preferable. The first one concerns author interpretation; the second one is theoretical.

Since we cannot settle this debate by asking Mises for his thoughts, this question of how to interpret his writings can become a never-ending discussion. Many economists sustain that Mises' opinion was primarily in favor of free banking with fractional reserves, but many others sustain the contrary position, that he preferred banking with a 100% reserve.

Standing out among the works arguing that Mises defended a 100% reserve requirement is Jesús Huerta de Soto's book *Money, Bank Credit, and Economic Cycles* (1998), especially Chapter 9.1. Huerta de Soto's exposition has become a strong reference supporting the interpretation that Mises favored banking with a 100% reserve. The recent translation of Huerta de Soto's book to English in 2006 is one of the latest expositions on this topic. Any *academic* debate is about ideas, not people; this article reviews Huerta de Soto's case because of the importance of his tidy and relevant work. Nevertheless, many of the reviews and comments could probably be extended to other authors holding a similar interpretation of Huerta de Soto's views.

This article seeks to contribute to the debate by reviewing Huerta de Soto's argument, concluding that it is more likely to affirm that Mises' free market ideal was not a 100% reserve requirement but was instead free banking with fractional reserves. This article does not deal with the free banking with fractional reserve versus banking with 100% reserve requirement discussion or with other related issues like the "fraud" or "money created out of thin air" arguments; it only deals with a revision on Huerta de Soto's exposition in chapter 9.1 of his *Money, Bank Credit, and Economic Cycles*. That is, it only deals with the Mises interpretation aspect of the debate and not with the theoretical discussion. For this review, the article will only refer to the specific chapter and pages in Huerta de Soto's book where he affirms that Mises' inclination was a 100% reserve requirement. Regarding Mises' writings, the article will mainly refer to the same chapters and sections Huerta de Soto does, with a few auxiliary exceptions for purposes of clarification. This is intended to emphasize the conclusion that even from the same chapters from where Huerta de Soto quotes Mises, it is also plausible to conclude that he preferred free banking with a fractional reserve.

The article has the following structure. In the first section, we will review the six references offered by Huerta de Soto to assert that Mises preferred banking with a 100% reserve. Second, we offer two short comments, one on the final footnote, 9, of Huerta de Soto's chapter and the second one on Mises' opinion of Peel's Act. Finally, we summarize our arguments in a conclusion. In all the following quotes, the boldface is added.

2. REVIEW ON HUERTA DE SOTO'S ARGUMENT
FIRST REFERENCE
THE THEORY OF MONEY AND CREDIT (1924 EDITION)

The first reference Huerta de Soto offers of Mises' defense of banking with a 100% reserve is from the 1924 edition of *The Theory of Money and Credit*. The two quotes offered from Mises are the following:

> *Fiduciary media are scarcely different in nature from money; a supply of them affects the market in the same way as a supply of money proper; variations in their quantity influence the objective exchange value of money in just the same way as do variations in the quantity of money proper. Hence, they should logically be subjected to the same principles that have been established with regard to money proper; the same attempts should be made in their case as well to eliminate as far as possible human influence on the exchange ratio between money and other economic goods. The possibility of causing temporary fluctuations in the exchange ratios between goods of higher and of lower orders by the issue of fiduciary media, and the pernicious consequences connected with a divergence* ***between*** *the natural and money rates of interest, are circumstances leading to the same conclusion. Now* ***it is obvious that the only way of eliminating human influence on the credit system is to suppress all further issue of fiduciary media. The basic conception of Peel's Act ought to be restated and more completely implemented than it was in the England of his time by including the issue of credit in the form of bank balances within the legislative prohibition.***[2]

Just after this quote, Huerta de Soto continues, "Mises adds:" and quotes the following:

> *It would be a mistake to assume that the modern organization of exchange is bound to continue to exist.* ***It carries within itself the germ of its own destruction****; the development of the fiduciary medium must necessarily lead to its breakdown.*[3]

These two quotes, especially the second one, seem to be very conclusive and clear. However, the problem is their context. The section where they come from seems to be more concerned with historical monetary difficulties than with pure theory. It is well known that the fourth part of *Theory of Money and Credit* added in 1958 is more focused on political

2 von Mises, L. (1912). The Theory of Money and Credit (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. pp. 446-447. Italics are from Huerta de Soto.

3 von Mises, L. (1912). The Theory of Money and Credit (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 448. Italics are from Huerta de Soto.

and historical problems than with theory, and this is where many citations are taken to support the opinion that Mises' ideal was banking with a 100% reserve, but this last part of the 1924 second edition is also concerned with very important political and historical considerations, as the section heading suggests. Both quotes come from chapter 20 titled (italics added), "Problems of *Credit Policy*," section III "Problems of *Credit Policy in the Period Immediately after the War*," point 13 "The Basic Questions of Future Currency Policy". What can be seen here is that the section titles are clear indications that Mises is writing in reference to specific historical problems involving credit policy and not to those involving credit theory. This last chapter of the 1924 edition is Mises' consideration on political problems after World War I.[4] If we consider these circumstances, then it might be correct to presume that he is making a second-best policy recommendation rather than describing his first-best (free banking) ideal. These references would be of much more value if they came from any of the 19 previous chapters, where he deals with theory, but passages like these are not easily found in those chapters.

However, the chapter headings are not the only clues showing that Mises is not talking about "pure theory" but about monetary policy issues. As we see how Mises continues immediately after the first quote, we find the following:

> *At first it might appear as if the execution of such radical measures would be bound to lead to a rise in the objective exchange-value of money. But this is not necessarily the case.* ***It is not improbable that the production of gold and the increase in the issue of bank-credit are at present increasing considerably faster than the demand for money and are consequently leading to a steady diminution of the objective exchange-value of money****. And there can be no doubt that a similar result follows from the apparently one-sided fixing of prices by sellers, the effect of which in diminishing the value of money has already been examined in detail.* ***The complaints about the general increase in the cost of living, which will continue for a long time yet****, may serve as a confirmation of the correctness of this assumption, which can be neither confirmed nor refuted statistically. Thus, a restriction of the growth of the stock of money in the broader sense need not unconditionally lead to a rise in the purchasing power of the monetary unit; it is possible that it might have the effect of completely or partly counteracting the fall in the value of money which might otherwise have occurred.*[5]

4 Although the first edition is from 1912, the second edition in German is from 1924, and Mises performed some modificatins in this chapter 20. This English translation is from this second German edition. Huerta de Soto advises the reader that he is quoting this 1924 edition.

5 von Mises, L. (1912). The Theory of Money and Credit (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 446. Bolds is added.

These lines show more clearly that Mises is talking about a specific historical moment. We can find another clear reference two paragraphs previous to the first quote in Huerta de Soto's book:

> *There can be no doubt* ***that the present state of the market for gold makes a decision between two possibilities imperative****: a return to the actual use of gold after the fashion of the English gold standard of the nineteenth century, or a transition to a fiat-money standard with purchasing power regulated according to index numbers. The gold-exchange standard might be considered as a possible basis for future currency systems only if an international agreement could impose upon each State the obligation to maintain a stock of gold of a size corresponding to its capacity. A gold-exchange standard with a redemption fund chiefly invested in foreign bills in gold currencies is in the long run not a practicable general solution of the problem.*[6]

Both these quotes, coming from the same chapter from which Huerta de Soto quotes Mises, seem to make it clear that Mises is not dealing with pure theory but is concerned with credit policy challenges of the time—that is, after World War I. When in the second quote Mises says that it is a "mistake to assume that the **modern organization of exchange** is bound to continue to exist," he is not talking about free banking but what in 1924 was the "modern" monetary system with its corresponding regulations.

Some pages later, when mentioning the Currency School, Mises says that he has nothing to add to what he has already said in previous chapters, that the risk is not to be found in fractional reserves *per se*, but in the possibility of banks to abuse such a measure. According to Mises, this can happen in two scenarios; (1) an agreement between all banks or (2) if there is only one issuer, a central bank. In Mises words:

> *The argument, however, that was then supposed to be the decisive one was provided by the Currency Principle. From the point of view of this doctrine, any note issue that is not covered by gold is dangerous, and so, in order to obviate the recurrence of economic crises, such issues must be restricted. On the question of the theoretical importance of the Currency Principle, and on the question of whether the means proposed by the Currency School were effective, or could have been effective, or might still be effective,* ***there is nothing that need be added to what has been said already****. We have already shown that the dangers envisaged by the Currency Principle* ***exist only when there is uniform procedure on the part of all the credit-issuing banks, not merely within a given country, but throughout the world. Now the monopolization of***

6 von Mises, L. (1912). *The Theory of Money and Credit* (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 446. Bolds is added.

> ***the banks of issue in each separate country does not merely fail to oppose any hindrance to this uniformity of procedure; it materially facilitates it.***[7]

Just a few pages later, Mises repeats his conclusion that under free banking fiduciary media can only be expanded beyond market demand with an agreement between all banks:

> *It has already been shown that it is impossible for a single bank by itself, and even for all banks in a given country or for all the banks in several countries, to increase the issue of fiduciary media, if the other banks do not do the same. The fact that tacit agreement to this effect among all the credit-issuing banks of the world has been achieved only with difficulty, and, even at that, has only effected what is after all but a small increase of credit, has constituted the most effective protection in recent times against excesses of credit policy. In this respect, we cannot yet know how circumstances will shape. If it should prove easier now for the credit-issuing banks to extend their circulation, then failure to adopt measures for limiting the issue of fiduciary media will involve the greatest danger to the stability of economic life.*[8]

Regarding the last sentence of this quote, we have to remember that Mises is referring to monetary policy issues in a context where there is no pure free banking, but where administrators are facing the challenges left by World War I.

It seems reasonable to conclude that for Mises the problem is not to be found in free banking with fractional reserves *per se* but instead in the presence of monetary regulations, even in chapter 20. On the free market limits of free banking, he wrote chapters 16 (The Evolution of Fiduciary Media), 17 (Fiduciary Media and the Demand for Money) and 18 (The Redemption of Fiduciary Media), where he does not refer to a 100% reserve because free banking regulates itself spontaneously; those are the chapters dealing with free banking theory, not chapter 20 concerned with "Problems of Credit Policy."

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7 von Mises, L. (1912). *The Theory of Money and Credit* (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 437. Bolds is added.

8 von Mises, L. (1912). *The Theory of Money and Credit* (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 439. Bolds is added.

3. SECOND ARGUMENT
MONETARY STABILIZATION AND CYCLICAL POLICY (1928)

The second reference Huerta de Soto offers is Mises' 1928 *Monetary Stabilization and Cyclical Policy*. The original German text was translated to English and titled "On the Manipulation of Money and Credit." The quote provided from Mises is the following:

> *The most important prerequisite of any* ***cyclical policy****, no matter how modest its goal may be, is to renounce every attempt to reduce the interest rate,* ***by means of banking policy,*** *below the rate which develops on the market. That means a return to the theory of the Currency School, which sought to suppress all future expansion of circulation credit and thus all further creation of fiduciary media. However, this does not mean a return to the old Currency School program, the application of which was limited to banknotes. Rather it means the introduction of a new program based on the old Currency School theory, but expanded in the light of the present state of knowledge to include fiduciary media issued in the form of bank deposits. The banks would be obliged at all times to maintain metallic backing for all notes–except for the sum of those outstanding which are not now covered by metal–equal to the total sum of the notes issued and bank deposits opened. That would mean a complete reorganization of* ***central bank legislation*** *... By this act alone, cyclical policy would be directed in earnest toward the elimination of cr****ises.***[9]

This quote of Mises shows several references to policy issues rather than to the free market. More specific to cyclical policy, we can presume that Mises is again talking about what he suggests a central bank should or should not do. The fact that Mises ends this quote specifically mentioning the central bank legislation is a clear indication that he is not commenting on a free banking scenario that needs to be limited. This is why in this text he even suggests only limiting commercial banks playing an important role in the market; that is, not all of them, which means an open door to smaller banks having fractional reserves. Again, the problem is not to be found in fractional reserves but in monetary legislation and monopoly of issuance. The section missing in Huerta de Soto's quote just after "central bank legislation" says the following:

> ***The banks of issue*** *would have to return to the principles of Peel's Bank Act, but with the provisions expanded to cover also bank balances subject to check. The same stipulations with respect to reserves must also be applied* ***to the large national deposit***

9 von Mises, L. (1978). The Causes of Economic Crisis. And Other Essays Before and After the Great Depression (2006 ed.). (P. L. Greaves Jr., Ed., B. B. Greaves, & P. L. Greaves Jr., Trads.) Auburn: Ludwig von Mises Institute. p. 150. Italics are from Huerta de Soto and bolds is added.

> ***institutions****, especially the postal savings. Of course, for these secondary banks of issue, the central bank reserves for their notes and deposits would be the equivalent of gold reserves. In those countries where checking accounts at private commercial banks play an important role in trade—notably the United States and England—the same obligation must be exacted from those banks also.*[10]

As we have previously seen, given that for Mises the risk of fiduciary media is when all banks collude or when there is only one monopolist issuer, it is realistic to conclude that he is criticizing not free banking but instead the monetary policies carried out by central banks. The "banks of issue" Mises is talking about are the privileged central banks, not the banks of a nonexistent free banking scenario.

Again, the titles of the section from where Mises' words are taken also show that he is referring to policy issues rather than to pure theory. The quote comes from Chapter 2, "Monetary Stabilization and *Cyclical Policy*" (italics added), section B, "*Cyclical Policy* to Eliminate Economic Fluctuations" (italics added), part VIII, "The Aims and *Method of Cyclical Policy*" (italics added), and point 1, "Revised *Currency School Theory*". That is, Mises seems to be commenting on the Currency School in the context of a cyclical currency policy with the presence of central banks, not with a free banking scenario, where, of course, there is no place for cyclical policy.

This second reference does not seem to strongly support that Mises was against free banking either, but that in the presence of central banks, his second best solution is to limit their power to issue fiduciary media.

4. THIRD REFERENCE MEMORANDUM BEFORE THE FINANCIAL COMMITTEE OF THE LEAGUE OF NATIONS (1930)

The third reference of Huerta de Soto is to a memorandum on "The Suitability of Methods of Ascertaining Changes in the Purchasing Power for the Guidance of International Currency and Banking" delivered to the League of Nations on October 10, 1930. We should note that this is a memorandum presented to the Financial Committee of the League of Nations very shortly after the crisis of 1929. It is likely that this financial committee would be more interested in Mises' advice on monetary policy. Huerta de Soto's first quote is the following:

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10 von Mises, L. (1978). *The Causes of Economic Crisis. And Other Essays Before and After the Great Depression* (2006 ed.). (P. L. Greaves Jr., Ed., B. B. Greaves, & P. L. Greaves Jr., Trads.) Auburn: Ludwig von Mises Institute. p. 150. Bolds is added.

> *It is characteristic of the gold standard that the banks are not allowed to increase the amount of notes and bank balances without a gold backing, beyond the total which was in circulation at the time the system was introduced. Peel's Bank Act of 1844, and the various banking laws which are more or less based on it, represent attempts to create a pure gold standard of this kind.* ***The attempt was incomplete because its restrictions on circulation included only banknotes, leaving out of account bank balances on which cheques could be drawn.*** *The founders of the Currency School failed to recognize the essential similarity between payments by cheque and payments by banknote. As a result of this oversight, those responsible for this legislation never accomplished their aim.*[11]

Huerta de Soto continues saying that then Mises explains how "a banking system based on the gold standard and a 100-percent reserve requirement would tend to push prices down slightly, which would benefit most citizens, since it would raise their real income, not through a nominal increase in earnings but through a continual reduction in the prices of consumer goods and services and relative constancy in nominal income. Mises deems such a monetary and banking system far superior to the current system, which is beset with chronic inflation and recurrent cycles of expansion and recession. **In reference to the economic depression then afflicting the world**, Mises concludes:"[12]

> *The root cause of the evil is not in the restrictions, but in the expansion which preceded them. The policy of the banks does not deserve criticism for having at last called a halt to the expansion of credit, but, rather, for ever having allowed it to begin.*[13]

In this case, Huerta de Soto himself recognizes that Mises was talking in "reference to the economic depression then afflicting the world." Once more, Mises' suggestion for monetary policy was, given a period of strong credit expansion by central banks, to limit their expansive power and not to promote free banking. In the political arena, to discuss free banking without central banks was—and still is—out of the question; it not unlikely to think that this is the constraint from which Mises was working his arguments. Other references suggesting that Mises was referring to historical and not to theoretical problems can also be found in

11 von Mises, L. (1990). *Money, Method, and the Market Process*. (R. M. Ebeling, Ed.) Norwell: Kluwer Academic Publishers. p. 90. Italics are from Huerta de Soto.

12 Huerta de Soto, J. (1998). *Money, Bank Credit, and Economic Cycles* (2006 ed.). (M. A. Stroup, Trad.) Auburn: Ludwig von Mises Institute. p. 719. Bold is added.

13 von Mises, L. (1990). *Money, Method, and the Market Process*. (R. M. Ebeling, Ed.) Norwell: Kluwer Academic Publishers. p. 91. Italics are from Huerta de Soto.

the same text from which Huerta de Soto extracts his quotes. For example, between the first and second quote, we can find the following:

At any rate, **a solution to the difficult problem of reforming our monetary and credit system** must not be rejected offhand merely for the reason that it involves a continuous fall in the price level.[14]

If we move a little further in the text to the end of this section, we find a more specific expression that Mises was referring to monetary policy challenges:

> *One ultimate reason for* ***the present drop in prices*** *is the circumstance that the banks–with the assent of public opinion, and indeed at the direct instigation of the press, the business world, and the Governments–have made use of their power to issue additional circulation, i.e., to increase credit artificially. If the banks were to make no use of this power*–***which could only be the case either if the Central Banks were explicitly prohibited in their reserve-issuing privileges or if public opinion rigorously condemned the practice***–*we should have no economic fluctuations.*[15]

We should mention two considerations on this passage by Mises. First, in this memorandum Mises is arguing against the myth that rising prices are needed to attain growth and is not expressing a defense of *deflation*. He is trying to emphasize the idea that growth without *inflation*[16] is possible. Note the following passage (also to be found between both quotes provided by Huerta de Soto):

> *The majority of our contemporaries will find that a sufficient ground for regarding such a monetary system as bad in itself, since they are wedded to the belief that good business and high prices are one and the same thing. But that is a prejudice. If we had had slowly falling prices for eighty years or more, we would have become accustomed to look for improvements in the standard of living and increases in real income through falling prices with stable or falling money income, rather than through increases in money income. At any rate, a solution to the difficult problem of reforming our mon-*

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14 von Mises, L. (1990). *Money, Method, and the Market Process*. (R. M. Ebeling, Ed.) Norwell: Kluwer Academic Publishers. p. 91.

15 von Mises, L. (1990). *Money, Method, and the Market Process*. (R. M. Ebeling, Ed.) Norwell: Kluwer Academic Publishers. p. 92. Bolds is added.

16 By "inflation" we mean in this paragraph what the politican and layman usually understands: "a steady increase in the level of prices" (the other way around for "deflation"). This is in concordance with the audience of Mises' text. For Mises' consideration on inflation see von Mises, L. (1912). *The Theory of Money and Credit* (1981 ed.). (H. E. Batson, Trans.) Chapter VII.7. Indianapolis: Liberty Fund; and von Mises, L. (1949). *Human Action. A Treatise on Economics* (1996 ed.). Chapter XVII.6. New York: The Foundation for Economic Education. For an interpretation of these passages see Cachanosky, N. (2009). The Definition of Inflation According to Mises: Implications for the Debate on Free Banking. *Libertarian Papers* 1:43.

etary and credit system must not be rejected offhand merely for the reason that it involves a continuous fall in the price level.[17]

Second, an example of a Mises theoretical consideration –where he is not trying to convince the Financial Committee of the League of Nations or argue against the *prejudice* of rising prices– can be found at the beginning of chapter 17 (Fiduciary Media and the Demand for Money), where he exposes the *undesirable consequences* of not going *pari passu* with the demand of money if we stick to gold as currency without fractional reserves:

> *If metallic money is employed,* ***then the advantages of a diminution of the demand for money due to the extension of such other means of payment are obvious.*** *In fact the development of the clearing system and of fiduciary media has at least kept pace with the potential increase of the demand for money brought about by the extension of the money economy, so that 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,* ***has been completely avoided, together with its undesirable consequences****. If it had not been for this the increase in the exchange-value of money, and so also of the monetary metal, would have given an increased impetus to the production of the metal. Capital and labor would have been diverted from other branches of production to the production of the monetary metal.* ***This would undoubtedly have meant increased returns to certain individual undertakings; but the welfare of the community would have suffered.*** *[...] This all becomes particularly clear if we think of an economic community which does not itself produce the precious metals, but imports them. Here the amount of their cost is expressed by the quantity of commodities that must be surrendered to foreign countries in order to obtain the supplementary quantity of monetary metal in exchange.*[18]

This third reference of Huerta de Soto also does not seem to provide a strong case for Mises' definitively preferring banking with a 100% reserve to free banking.

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17 von Mises, L. (1990). *Money, Method, and the Market Process.* (R. M. Ebeling, Ed.) Norwell: Kluwer Academic Publishers. p. 91. Bolds is added.

18 von Mises, L. (1912). *The Theory of Money and Credit* (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 333. Bolds is added.

5. FOURTH REFERENCE NATIONALÖKONOMIE (1940)

Huerta de Soto's fourth reference is Mises' predecessor of *Human Action, Nationalökonomie*, which has not been translated to English. Given that *Human Action* was built on *Nationalökonomie,* his thoughts on this later book should have precedence. As we will see in the fifth reference, in *Human Action* Mises also does not seem to support banking with a 100% reserve over free banking.

In this section, given that Mises' work has not been translated to Spanish or English, Huerta de Soto quotes Mises' original German work in footnotes and provides an interpretation. Huerta de Soto tells us that Mises questions the Chicago School's proposal that "100-percent reserves requirement be set for banking, but that the monetary base remain fiduciary, and that the responsibility for issuing and controlling the stock of money continue to fall to the central bank."[19] Huerta de Soto continues by claiming that for Mises a central bank, even with a 100% reserve, will be under pressure from and influenced by the state to issue fiduciary media in a financial emergency. Huerta de Soto then tells us that according "to Mises, the ideal solution would thus be to establish a system of free banking (i.e., without a central bank) **subject to traditional legal principles (and hence, a 100-percent reserve requirement)**."[20] Huerta de Soto continues saying that in "this book Mises accompanies his defense of a 100-percent reserve requirement with his objection not only to the central bank, but also to a fractional reserve free-banking system: although such a system would greatly limit the issuance of fiduciary media, it would be inadequate to completely eliminate credit expansion nor the recurrent booms and economic recessions which inevitably come with it."[21] Finally, Huerta de Soto concludes this section with footnote 6, where he provides the following English translation, a footnote originally from *Nationalökonomie* found in *Human Action:*

> *The notion of 'normal' credit expansion is absurd. Issuance of additional fiduciary media, no matter what its quantity may be, always sets in motion those changes in the price structure the description of which is the task of the theory of the trade cycle. Of course, if the additional amount issued is not large, neither are the inevitable effects of the expansion.*[22]

19 Huerta de Soto, J. (1998). *Money, Bank Credit, and Economic Cycles* (2006 ed.). (M. A. Stroup, Trad.) Auburn: Ludwig von Mises Institute. p. 720.

20 Huerta de Soto, J. (1998). *Money, Bank Credit, and Economic Cycles* (2006 ed.). (M. A. Stroup, Trad.) Auburn: Ludwig von Mises Institute. p. 720. Bolds is added.

21 Huerta de Soto, J. (1998). *Money, Bank Credit, and Economic Cycles* (2006 ed.). (M. A. Stroup, Trad.) Auburn: Ludwig von Mises Institute. pp. 720-721.

22 von Mises, L. (1949). *Human Action. A Treatise on Economics* (1996 ed.). New York: The Foundation for Economic Education. p. 442.

There are two elements that deserve a comment on this section by Huerta de Soto. The first one deals with the relation between tradition legal principles and a 100% reserve requirement; the second one deals with Huerta de Soto's quote of Mises' footnote.

First, the traditional legal principle Huerta de Soto mentions does not necessarily imply a 100% reserve requirement. Bank notes represent a claim on demand, not on carry; the contract implies that reserves have to be returned to those making claims. Assume person A goes to Bank B and says, "I want to deposit X amount of gold in your bank for an unknown length of time and be able to withdraw whenever it suits me". Bank B responds: "No problem. But be aware that this is not a safety box and that as a saving intermediary I will lend part of your gold. I will give you notes saying that anyone who presents them at my bank will receive the amount expressed in the note, so you can use this note for exchanges". Person A responds: "No problem. But if the day I come to withdraw part of my gold using your bank notes you do not have it, I will sue your bank". And Bank B responds: "No problem. Deal." Where is the breach of contract in this scenario? Whose liberty has been coerced? This kind of contract is usually called "irregular" in the 100-percent literature, but this terminology can be confusing. The problem with the word "irregular" is that it implies undesirable connotations when attached to the word "contract". The difficulty with deposit contracts is their complexity—not their irregularity. The use of the word "irregular" to refer to a contract is an unfortunate one because it adds confusion to the debate. It is certainly different to talk about "complex contracts" than "irregular contracts" when dealing with free banking.

A 100% reserve requirement is not necessarily part of the deposit contract, but to fulfill claims on demand. We may discuss whether bank deposit contracts should be more clear and explicit, but that is a very different conclusion than to argue for a 100% reserve requirement because of "traditional legal principles." The 100% reserve requirement is a *non sequitur* of a "traditional legal principle," as this principle means the bank should be able to deliver the claim on demand or be sued because of this failure and not because it operates with fractional reserves. This seems to stem from Huerta de Soto's own understanding of "traditional legal principles" in his *Money, Bank Credit, and Economic Cycles* rather from than Mises' own thoughts.

The traditional legal principle means, for Mises, that no bank should have any privilege and that they should not be allowed to devalue their notes in order to avoid bankruptcy. If not, the *moral hazard* implied would free the banks from concern over the consequences of issuing fiduciary media beyond market demand with all of its economic consequences. The next words of Mises from *Theory of Money and Credit* from chapter 16, *The Evolution of Fiduciary Media*, says that fiduciary media are claims on demand and that their legal characteristics allow them to be suitable for exchange as money:

> *Thus fiduciary media are* ***claims to the payment of a given sum on demand****, which are not covered by a fund of money,* ***and whose legal and technical characteristics***

> ***make them suitable*** *for tender and acceptance instead of money in fulfillment of obligations that are in terms of money.*[23]

Second, the footnote of Mises provided by Huerta de Soto does not imply that Mises preferred banking with a 100% reserve to free banking; it mainly claims that small changes in the offer of credit also affect the market. Mises is describing the effect of a small expansion of credit, not arguing in favor of or against them. We have already seen some quotes where Mises saw the role of fiduciary media in a positive light by easing the change in money *pari passu* with its demand. It should also be considered that this reference is a footnote in Mises' work, not part of the main body, found at the end of the following paragraph:

> *It is a fable that governments interfered with banking in order to restrict the issue of fiduciary media and to prevent credit expansion. The idea that guided governments was, on the contrary, the lust for inflation and credit expansion. They privileged banks because they wanted to widen the limits that the unhampered market draws to credit expansion or because they were eager to open to the treasury a source of revenue. For the most part both of these considerations motivated the authorities. They were convinced that the fiduciary media are an efficient means of lowering the rate of interest, and asked the banks to expand credit for the benefit of both business and the treasury. Only when the undesired effects of credit expansion became visible, were laws enacted to restrict the issue of banknotes—and sometimes also of deposits—not covered by specie.* ***The establishment of free banking was never seriously considered precisely because it would have been too efficient in restricting credit expansion.*** *For rulers, writers, and the public were unanimous in the belief that business has a fair claim to a 'normal' and 'necessary' amount of circulation credit and that this amount could not be attained under free banking.*[24]

As we can see, Mises is explicitly saying that free banking was never seriously considered precisely because it would have been too efficient in restricting credit expansion. What then is the meaning of footnote 17 cited by Huerta de Soto? To comment on the last sentence of the paragraph and to argue against the popular idea that business has a fair claim to a *normal* and *necessary* amount of circulation credit and that this amount could not be attained under free banking, as if a "normal" and "necessary" credit expansion did not affect the market or were *neutral*. However, as we have seen in the main body of the paragraph from

23 von Mises, L. (1912). *The Theory of Money and Credit* (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 311. Bolds is added.

24 von Mises, L. (1949). *Human Action. A Treatise on Economics* (1996 ed.). New York: The Foundation for Economic Education. pp. 441–442. Bolds is added.

which footnote 17 is taken, Mises explicitly says that the "establishment of free banking was never seriously considered precisely because it would have been too efficient in restricting credit expansion." This sounds like more a defense of free banking than a 100% reserve requirement.

6. FIFTH REFERENCE HUMAN ACTION (1949)

Although in *Human Action* Mises dedicates a chapter to "The Limitation on the Issuance of Fiduciary Media" (chapter XVII.12), which consists of almost 14 pages, Huerta de Soto's exposition of this section is quite short.[25]

Huerta de Soto says that, "Mises repeats the arguments from the German edition, but he expressly refers to Irving Fisher's plan for establishing a 100-percent reserve requirement for banking. Mises disapproves of Fisher's plan, not because it includes a proposal for a 100-percent reserve requirement, which Mises fully supports, but because Fisher seeks to combine this measure with the conservation of the central bank and the adoption of an indexed monetary unit."[26] Huerta de Soto continues by saying that according to Mises, the suggestion to reestablish a 100-percent reserve requirement yet preserve the central bank is insufficient, citing:

> *[I]t 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 compelling every individual and firm to fulfill all obligations in full compliance with the terms of the contract.*[27]

A first peculiarity is that Huerta de Soto says that Mises repeats but he *expressly* refers to Irving Fisher's plan. It is true that Mises repeats his arguments, but the explicit reference is in *Theory of Money and Credit* more than in *Human Action*. In the first book, Mises dedicates a chapter section to Irving Fisher's proposal in the same chapter 20 Huerta de Soto

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25 This is probably due to the fact that Huerta de Soto also refers to several other authors as well as his own banking reform proposal, and he may not have wanted to extend this chapter by too much. Of course, this is certainly understandable, but as this is a specific chapter of Mises' dealing with the theoretical problems of fiduciary media, we expected to find a stronger case in this section of Huerta de Soto's chapter.

26 Huerta de Soto, J. (1998). *Money, Bank Credit, and Economic Cycles* (2006 ed.). (M. A. Stroup, Trad.) Auburn: Ludwig von Mises Institute. pp. 721-722.

27 von Mises, L. (1949). *Human Action. A Treatise on Economics* (1996 ed.). New York: The Foundation for Economic Education. p. 443.

uses as a first reference. Chapter 20.III.12's heading is "Fisher's Proposal for a Commodity Standard". In *Human Action* there is not such a title; Mises dedicates a few paragraphs in chapter XVII.12 (*The Limitation on the Issuance of Fiduciary Media*) without a titled section referring to Fisher. This is the same chapter from which Huerta de Soto takes his quote and the footnote 17 already mentioned in the previous reference.

If we look at Huerta de Soto's quote we see it is an incomplete expression from Mises. The whole quote should be as follows:

> ***But even if*** *the 100 percent 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 compelling every individual and firm to fulfill all obligations in full compliance with the terms of the contract.* ***If banks are preserved as privileged establishments subject to special legislative provisions, the tool remains that governments can use for fiscal purposes. Then every restriction imposed upon the issuance of fiduciary media depends upon the government's and the parliament's good intentions.***[28]

What Mises is doing is criticizing Fisher's plan and not free-banking. What Mises questions is that Fisher's plan would not work even with a 100% reserve; the problem is a misconstruction *in the plan*, not in the *absence of a 100% reserve*. The first part, missing in Huerta de Soto's quote, is as important as the final one; also missing is the part that refers to the monetary legislation that will be present in Fisher's plan because there will still be a central bank.

This and the mentioned footnote 17 in *Nationalökonomie* are the only references offered by Huerta de Soto from *Human Action*. These quotes come from a specific chapter dealing with the limits on the issuance of fiduciary media, but no clear statement against free banking appears here. On the contrary, if we look closely into the chapter we can find several expressions suggesting that Mises' thoughts are more likely to be toward free banking rather than to banking with a 100% reserve. At the beginning of the chapter we can find the following:

> *Issuing money-certificates is an expensive venture. The banknotes must be printed, the coins minted; a complicated accounting system for the deposits must be organized; the reserves must be kept in safety; then there is the risk of being cheated by counterfeit banknotes and checks. [A]gainst all these expenses stands only the slight chance that*

28 von Mises, L. (1949). *Human Action. A Treatise on Economics* (1996 ed.). New York: The Foundation for Economic Education. p. 443. Bolds is added.

> *some of the banknotes issued may be destroyed and the still slighter chance that some depositors may forget their deposits.* ***Issuing money-certificates is a ruinous business if not connected with issuing fiduciary media.*** *In the early history of banking there were banks whose only operation consisted in issuing money-certificates. But these banks were indemnified by their clients for the costs incurred. [A]t any rate, catallactics is not interested in the purely technical problems of banks not issuing fiduciary media. The only interest that catallactics takes in money-certificates is the connection between issuing them and the issuing of fiduciary media.*[29]

Then Mises asks if there are any limits on the issuance of fiduciary media. He mentions two limitations:

> *First: It must avoid any action which could make the clients–i.e., the public–suspicious. As soon as the clients begin to lose confidence, they will ask for the redemption of the banknotes and withdraw their deposits. How far the bank can go on increasing its issues of fiduciary media without arousing distrust, depends on psychological factors.*
>
> *Second: It must not increase the amount of fiduciary media at such a rate and with such speed that the clients get the conviction that the rise in prices will continue endlessly at an accelerated pace. For if the public believes that this is the case, they will reduce their cash holdings, flee into "real" values, and bring about the crack-up boom. It is impossible to imagine the approach of this catastrophe without assuming that its first manifestation consists in the evanescence of confidence. The public will certainly prefer exchanging the fiduciary media against money to fleeing into real values, i.e. to the indiscriminate buying of various commodities. Then the bank must go bankrupt.*[30]

Mises continues by analyzing the case where several banks coexist, saying that the limits to the issuance of fiduciary media are narrower than when there is only one:

> *As there are even limits to the issuance of fiduciary media on the part of a unique bank the clientele of which comprises all people, it is obvious that there are such limits for a multiplicity of independently coexisting banks too.* ***What we want to show is that***

29 von Mises, L. (1949). *Human Action. A Treatise on Economics* (1996 ed.). New York: The Foundation for Economic Education. p. 435. Bolds is added.

30 von Mises, L. (1949). *Human Action. A Treatise on Economics* (1996 ed.). New York: The Foundation for Economic Education. p. 436.

> ***for such a multiplicity of independently coexisting banks the limits are narrower than those drawn for a single bank with an unlimited clientele.***[31]

Here Mises is actually talking about the free banking system without central banks or monetary regulation, but no mention of a 100% reserve requirement or the need to restate Peel's Act can be found. Mises continues explaining how the clearing system does not allow the banks to expand their fiduciary media beyond the market demand for their currency:

> *It is very easy for a bank to increase the number of people who are ready to accept loans granted by credit expansion and paid out in an amount of money-substitutes.* ***But it is very difficult for any bank to enlarge its clientele, that is, the number of people who are ready to consider these claims as money-substitutes and to keep them as such in their cash holdings.*** *To enlarge this clientele is a troublesome and slow process, as is the acquisition of any kind of good will. On the other hand, a bank can lose its clientele very quickly. If it wants to preserve it, it must never permit any doubt about its ability and readiness to discharge all its liabilities in due compliance with the terms of the contract. A reserve must be kept large enough to redeem all banknotes which a holder may submit for redemption.* ***Therefore no bank can content itself with issuing fiduciary media only; it must keep a reserve against the total amount of money-substitutes issued and thus combine issuing fiduciary media and money-certificates.***[32]

Here, Mises expressly refers to the need to have reserves *and* combine them with fiduciary media, not the need to eliminate the latter and keep only the former because the latter are illegal or fraudulent. Mises then discusses once more the importance of the banks' not losing their client's confidence, as such may result in bankruptcy, and he mentions that no law can be a safeguard against a loss of confidence, even if it's successful in limiting the issuance of fiduciary media. This success Mises is talking about when referring to the limitation on the issuance of fiduciary media is the success of these initiatives in their objective of limiting fiduciary media, not in their convenience or inconvenience.

Mises continues referring to the Banking School and Currency School as we see in the following paragraph:

31 von Mises, L. (1949). *Human Action. A Treatise on Economics* (1996 ed.). New York: The Foundation for Economic Education. p. 437. Bolds is added.

32 von Mises, L. (1949). *Human Action. A Treatise on Economics* (1996 ed.). New York: The Foundation for Economic Education. p. 439. Bolds is added.

It must be emphasized that the problem of legal restrictions upon the issuance 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. If the governments had never interfered for the benefit of special banks, if they had never released some banks from the obligation, incumbent upon all individuals and firms in the market economy, to settle their liabilities in full compliance with the terms of the contract, no bank problem would have come into being. The limits which are drawn to credit expansion would have worked effectively. Considerations of its own solvency would have forced every bank to cautious restraint in issuing fiduciary media. Those banks which would not have observed these indispensable rules would have gone bankrupt, and the public, warned through damage, would have become doubly suspicious and reserved.[33]

As we can see, there would have been no problem in limiting the issuance of fiduciary media were it not for the fact that, "governments had granted special privileges to one or several banks and had thus prevented the free evolution of banking." In a free banking scenario there are no privileges by definition, no problem of limiting the issuance of fiduciary media would arise and no need for a 100% reserve requirement; on the contrary, the, "welfare of the community would have suffered"[34] had that requirement been in place.

Note that this quote, where no banks are released from their obligation to settle their liabilities in full compliance with the terms of their contracts, does not imply a 100% reserve requirement. Mises explicitly says that in such a situation considerations, "of its own solvency would have forced every bank to **cautious restraint** in issuing fiduciary media," but not to eliminating or forbidding it because it is unlawful or implies fraud. This is in agreement with what Mises says in this same chapter of *Human Action* and in *The Theory of Money and Credit*, that banks cannot expand their fiduciary media by fractional reserves beyond the market demand for its currency. Fractional reserves are part of the free market system, and it has a limit imposed by the same market as with any other commodity.

Then Mises turns to Fisher's proposal where Huerta de Soto offers his only quote, but if we look at the paragraph immediately after the one provided by Huerta de Soto, we find the following statement, which requires no further clarification:

Free banking is the only method available for the prevention of the dangers inherent in credit expansion. *It would, it is true, not hinder a slow credit expansion, kept within very narrow limits, on the part of cautious banks which provide the public*

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33 von Mises, L. (1949). *Human Action. A Treatise on Economics* (1996 ed.). New York: The Foundation for Economic Education. p. 441. Bolds is added.

34 von Mises, L. (1912). ***The Theory of Money and Credit*** (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 333.

with all information required about their financial status. ***But under free banking it would have been impossible for credit expansion with all its inevitable consequences to have developed into a regular—one is tempted to say normal—feature of the economic system. Only free banking would have rendered the market economy secure against crises and depressions.***[35]

As we can see, this paragraph not only does not mention the 100% reserve requirement but also puts in context the footnote 17 that Huerta de Soto refers to when talking about *Nationalökonomie*, where he asserts that it has, "generated substantial confusion among those members of the Austrian School who defend a fractional-reserve free-banking system."[36]

Mises continues with some observations on the discussion concerning free banking. Some pages later, he repeats that the risk is not in fiduciary media *per se* but is instead that all banks collude and no one breaks their agreement:

But, some people may ask, what about a cartel of the commercial banks? Could not the banks collude for the sake of a boundless expansion of their issuance of fiduciary media? The objection is preposterous. As long as the public is not, by government interference, deprived of the right of withdrawing its deposits, ***no bank can risk its own good will by collusion with banks whose good will is not so high as its own. One must not forget that every bank issuing fiduciary media is in a rather precarious position. Its most valuable asset is its reputation.*** *It must go bankrupt as soon as doubts arise concerning its perfect trustworthiness and solvency. It would be suicidal for a bank of good standing to link its name with that of other banks with a poorer good will.* ***Under free banking a cartel of the banks would destroy the country's whole banking system. It would not serve the interests of any bank.***[37]

In this work, Mises dedicates a whole chapter to the specific problem of fiduciary media. No word can be found on the necessity of eliminating fiduciary media or that of a 100% reserve requirement in the free market as Huerta de Soto seems to claim. Huerta de Soto only quotes a footnote and an incomplete expression of Mises when talking about Fisher's plan, not free banking. It seems clear from this chapter that when dealing with pure theory Mises preferred free banking with fractional reserves limited by the market rather than a 100% re-

35 von Mises, L. (1949). *Human Action. A Treatise on Economics* (1996 ed.). New York: The Foundation for Economic Education. p. 443. Bolds is added.

36 Huerta de Soto, J. (1998). *Money, Bank Credit, and Economic Cycles* (2006 ed.). (M. A. Stroup, Trad.) Auburn: Ludwig von Mises Institute. p. 721.

37 von Mises, L. (1949). *Human Action. A Treatise on Economics* (1996 ed.). New York: The Foundation for Economic Education. p. 447. Bolds is added.

serve requirement. To comply with the contract means for Mises that the commercial banks must fulfill the demand of their clients when a bank note is presented at the front desk and that no privileges to devaluation should be granted; it does not mean that a reserve has to be kept for every note in circulation. As we have previously mentioned, that is a conclusion made by Huerta de Soto, not by Mises.

This specific chapter on limits to fiduciary media of *Human Action* does not seem to support Huerta de Soto's conclusion that Mises preferred banking with a 100% reserve.

7. SIXTH REFERENCE MONETARY RECONSTRUCTION (1953)

The sixth and final reference is to the *Monetary Reconstruction* appendix to *The Theory of Money and Credit*. Here Huerta de Soto offers two quotes:

> *The main thing is that* ***the government*** *should no longer be in a position to increase the quantity of money in circulation and the amount of checkbook money not fully–that is, 100 percent–covered by deposits paid in by the public.*[38]

Huerta de Soto continues, mentioning that Mises proposes a process of transition to the ideal system:

> *No bank must be permitted to expand the total amount of its deposits subject to check or the balance of such deposits of any individual customer, be he a private citizen or the U.S. Treasury, otherwise than by receiving cash deposits in legal-tender banknotes from the public or by receiving a check payable by another domestic bank subject to the same limitations.* ***This means a rigid 100 percent reserve for all future deposits; that is, all deposits not already in existence on the first day of the reform.***[39]

As these quotes come from Mises' appendix on *Monetary Reconstruction* after World War II, it is clear that this is a monetary policy suggestion on the challenges of the time. The first line of the first quote provided by Huerta de Soto explicitly refers to limiting the government's ability to increase the quantity of money, not to banks in free banking. This reference

38 von Mises, L. (1912). *The Theory of Money and Credit* (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 481. Bolds is added.

39 von Mises, L. (1912). *The Theory of Money and Credit* (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 491. Italics are from Huerta de Soto.

comes from chapter 23 titled, "The Integral Gold Standard," where he explains the main points of returning to this regime, namely to avoid the use of central banks by governments to finance their deficits. If we cite Mises' paragraph at length, this becomes clear:

> *The eminence of the gold standard consists in the fact that* ***it makes the determination of monetary unit's purchasing power independent of the measures of governments****. It wrests from the hands of the 'economic tsars' their most redoubtable instrument. I****t makes it impossible for them to inflate****. This is why the gold standard is furiously attacked by those who expect that they will be benefited by bounties from the seemingly inexhaustible government purpose.*
>
> *What is needed first of all is to force the rulers to spend only what, by virtue of duly-promulgated laws, they have collected as taxes. Whether governments should borrow from the public at all and, if so, to what extent are questions that are irrelevant to the treatment of monetary problems. The main thing is that the government should no longer be in a position to increase the quantity of money in circulation and the amount of cheque-book money not fully – i.e. 100 per cent – covered by deposits paid in by the public. No backdoor must be left open where inflation can slip in. No emergency can justify a return to inflation. Inflation can provide neither the weapons a nation needs to defend its independence nor the capital goods required for any project. It does not cure unsatisfactory conditions. It merely helps the rulers whose policies brought about the catastrophe to exculpate themselves.*[40]

As we can see, Mises is saying that a return to the gold standard is recommended because it helps to constrain government spending, not the banks in free banking. In the same chapter from which Huerta de Soto offers his first quote we can find the following expression of Mises where he says that a better solution would have been free banking:

> *Suspension of the banknotes' convertibility and legal-tender provisions had transformed 'hard' currencies of many countries into questionable paper money. The logical conclusion to be drawn from these facts would have been to do away with privileged banks altogether and to subject all banks to the rule of common law and the commercial codes that oblige everybody to perform contracts in full faithfulness to the pledged word.* ***Free banking would have spared the world many crises and catastrophes.***[41]

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40 von Mises, L. (1912). *The Theory of Money and Credit* (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 481. Bolds is added.

41 von Mises, L. (1912). *The Theory of Money and Credit* (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 482. Bolds is added.

The second quote offered by Huerta de Soto comes from a specific section discussing *The United State's Return to a Sound Currency*. Mises is offering the suggestion of monetary reconstruction in United States after World War II. How do we know that he would offer the same solution to all countries at any time and at any context? This is not a chapter where Mises develops banking pure theory. Once more, Mises is dealing with a specific problem where there is no free banking but intervention and central banks. As the elimination of central banks is not politically feasible, his suggestion is to limit the central banks by imposing a rigid, not flexible, gold standard with a 100% reserve in gold.

This sixth reference does not seem to be a strong case in support of the interpretation that Mises preferred banking with a 100% reserve either; here, Mises' arguments are very contextual and historically specific. We should note once more that even in this appendix Mises expressly said that "free banking would have spared the world many crises and catastrophes," that is, because we did not have free banking, a *second best* solution is to limit central banks by imposing a 100% reserve requirement to them.

7.1 A NOTE ON FOOTNOTE 9[42]

Although the six previous references are Huerta de Soto's main arguments in support of the conclusion that Mises preferred banking with a 100% reserve, his comments on footnote 9 also deserve a few remarks.

Huerta de Soto says that despite "Mises's **crystal clear** statements in favor of a 100-percent reserve requirement, his defense of free banking as an indirect step toward the ideal of a 100 percent reserve (and thus toward a banking system subject to traditional legal principles) has prompted some Austrian theorists of the modern Neo-Banking School to **make a self-interested interpretation** of Mises's position. Thus these theorists view Mises as a defender of fractional-reserve free banking first, and of banking with a 100 percent reserve second."[43]

He then mentions Lawrence H. White's *Mises on Free Banking and Fractional Reserves*[44] as an example and quotes Joseph Salerno's claim that White's conclusion is untenable, "because he **overlooks** important passages in the very works of Mises that he cites, and because he **ignores** significant developments in Mises's theory of money that occurred between the

42 In the original spanish version of the text this is footnote number 8.

43 Huerta de Soto, J. (1998). *Money, Bank Credit, and Economic Cycles* (2006 ed.). (M. A. Stroup, Trad.) Auburn: Ludwig von Mises Institute. p. 723. Bolds is added.

44 White, L. H. (1992). Mises on Free Banking and Fractional Reserves. In J. W. Robbins, & M. Spangler (Eds.), *A Man of Principle. Essays in Honor of Hans F. Sennholz* (pp. 517-533). Grove City: Grove City College Press.

publication of the first German edition of *The Theory of Money and Credit* in 1912 and the publication of *Nationalökonomie* in 1940."[45]

Huerta de Soto's mention of "Mises' crystal **clear statements** in favor of a 100-percent reserve requirement," and "his defense of free banking as an indirect step toward the ideal of a 100 percent reserve," show that he views Mises' passages as theoretical considerations rather than as specific monetary policy. The problem with this footnote is that it leaves no room for the interpretation that he was really talking only about Mises' political suggestion. Huerta de Soto is claiming that Mises was against not only central banks but also free banking with fractional reserves.

The footnote's assertion that Mises was *crystal clear* in favor of a 100% reserve requirement, as if those who think otherwise are unable to understand Mises or are making *self-interested* interpretations of Mises' position, as well as Salerno's opinion that Austrians who think Mises preferred free banking *overlook* important passages or *ignore* significant development in Mises' theory of money, do not seem too fair to the other half of Austrian scholars who interpret this matter in a different way. In the quoted article, Salerno claims that Mises and Hayek should be dehomogenized, but it is possible that it is not Hayek from whom Mises should be dehomogenized, but it is instead ourselves; to *overlook* or *ignore* this possibility could also affect the interpretation of Mises' writings.

A closer inspection of Huerta de Soto's own quote sheds doubt on the claim that Mises was crystal clear on a 100% reserve requirement as well as the claim that Austrians ignore or *conveniently* overlook some of Mises' passages. It does not even seem to be an overstatement to assert that a stronger case of the interpretation that Mises preferred "free banking with fractional reserves first and a 100% reserve requirement second" is possible even from the same chapters Huerta de Soto uses to support his claim that Mises' preference for a 100% reserve requirement is crystal clear. Except for a few auxiliary exceptions, all references from Mises came from the same chapters where Huerta de Soto takes his quotes to support his interpretations.

7. 2 A NOTE ON MISES AND PEEL'S ACT

A good example of the disagreement and confusion around Mises' thoughts is his opinion on Peel's Act. It seems natural that authors who think Mises preferred a 100% reserve requirement would also assert that Mises was in favor of Peel's Act. However, in a specific section dedicated to Peel's Act, also in chapter 20 of *The Theory of Money and Credit*, where he initially talks about the banking principle and currency principle, Mises draws the following critique on the limitation of banknotes:

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45 Salerno, J. T. (1993). Mises and Hayek Dehomogenized. *The Review of Austrian Economics*, 6 (2), 113–146. p. 139. Italics are original and bold is added.

> *To start from the Banking Principle,* ***which denies the possibility of an over-issue of bank-notes*** *and regards 'elasticity' as their essential characteristic, is necessarily to arrive at the conclusion that any limitation of the circulation of notes, whether they are backed by money or not, must prove injurious, since it prevents the exercise of the chief function of the note-issue, the contrivance of an adjustment between the stock of money and the demand for money without changing the objective exchange-value of money.*[46]

After reviewing the currency principle Mises moves on to Peel's Act, where his opinion was against, instead of in favor of, its spirit of limiting fiduciary media:

> *As far as Peel's Act was concerned, however, this very shortcoming of the theory that had created it turned out to be an advantage; it caused the incorporation in it of the safety valve without which it would not have been able to cope with the subsequent increase in the requirements of business. The fundamental mistake of Peel's system, which it shares with all other systems which proceed by restricting the note circulation, lies in its failure to foresee the extension of the quota of notes not backed by metal that went with the increase on the demand for money in the broader sense. As far as the past was concerned, the act sanctioned the creation of a certain amount of fiduciary media and the influence that this had on the determination of the objective exchange value of money; it did not do anything to counteract the effects of this issue of fiduciary media. But at the same time, in order to guard the capital market from shocks, it removed all future possibility of partly or wholly satisfying the increasing demand for money by the issuing of fiduciary media and so of mitigating or entirely preventing a rise in the objective exchange value of money. This amounts to the same thing as suppressing the creation of fiduciary media altogether and so renouncing all the attendant advantages for the stabilization of the objective exchange value of money. It is an heroic remedy with a vengeance, in essence hardly differing at all from the proposals of the downright opponents of all fiduciary media.*[47]

In the last paragraph of this chapter, Mises concludes that the real obstacle to an unlimited issuance of fiduciary media is to be found not in legislation but in the absence of a world bank or collusive behavior. The absence of central banks is much more effective in limiting the issuance of fiduciary media than legislation. In this case, banks will not be able to issue unlimited fiduciary media. Note that in his conclusions, Mises does not call for

46 von Mises, L. (1912). *The Theory of Money and Credit* (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 406-407. Bolds is added.

47 von Mises, L. (1912). *The Theory of Money and Credit* (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 408. Bolds is added.

a 100% reserve requirement, which he would regard as unnecessary and prejudicial for the economy:

> *The real obstacle in the way of an unlimited extension of the issue of fiduciary media is not constituted by legislative restriction of the note-issue, which, after all, only affects a certain kind of fiduciary medium, but the lack of a centralized world bank or of uniform procedure on the part of all credit-issuing banks. So long as the banks do not come to an agreement among themselves concerning the extension of credit, the circulation of fiduciary media can indeed be increased slowly, but it cannot be increased in a sweeping fashion. Each individual bank can only make a small step forward and must then wait until the others have followed its example. Every bank is obliged to regulate its interest policy in accordance with that of the others.*[48]

It should be noted that this quotes from *The Theory of Money and Credit* are from the appendix of 1954—that is, after *Human Action*. This leaves practically no room to argue that Mises has shifted his thoughts from free banking to banking with a 100% reserve. On the contrary, in the 1924 edition of *The Theory of Money and Credit,* Mises is implicitly in favor of free banking, in *Human Action,* written in 1949, Mises is *clearly* in favor of free banking, and in the 1954 appendix to *The Theory of Money and Credit,* he still prefers free banking as his theoretical opinion of Peel's Act shows.

How do we interpret, then, the several passages of Mises where he clearly says that Peel's Act should be reinstated but corrected from its flaws? Unless Mises has changed his mind or contradicted himself in a central aspect in the same chapter without noticing it (possible, but certainly extremely unlikely) some explanation should be given. Why is Mises offering opposing arguments on the same topic in the same chapter?

This becomes understandable when we notice that he is talking about different situations or he is facing different problems in each case. When Mises is talking about reinstating an improved Peel's Act, he is talking about limiting the power of central banks and thus is dealing with monetary policy, not with monetary pure theory. This situation is like some of the quotes provided by Huerta de Soto. As central banks will still be around enacting monetary policy and trying to expand credit in the market, they should at least be limited by some norm. As something like Peel's Act already exists, there is no need to develop another rule anew. However, the government can reinstate and fix Peel's Act so as not to leave an open door for governments to enact inflationary policies again—instead leaving fractional reserves to commercial banks but not central banks. In the above cited passage, where Mises expressly says that Peel's Act "amounts to the same thing as suppressing the creation of fiduciary media altogether and so **renouncing all the attendant advantages for the**

48 von Mises, L. (1912). *The Theory of Money and Credit* (1981 ed.). (H. E. Batson, Trad.) Indianapolis: Liberty Fund. p. 411. Bolds is added.

stabilization of the objective exchange value of money," he is talking about pure theory. In the several passages where he says that Peel's Act should be reinstated, he is talking in reference to central banks or monetary policy. In *Human Action,* Mises mentioned that under free banking the limits on the issuance of fiduciary media are much narrower than when there is one issuer. In order to narrow the limits on central banks' issuance of fiduciary media, it could be advisable to impose on them a 100% reserve requirement.

This divergence in Mises' opinion is analogous to his thoughts on free banking with fractional reserves and banking with a 100% reserve requirement. In the former, he is talking about pure theory. In the second, he is talking about monetary policy with the presence of monetary legislation and with central banks following an expansive monetary policy. As free banking is out of the question, since governments would not renounce the central banks, the *second best* choice is to impose a 100% reserve requirement to central banks. Note that this *second best* is generally limited to central banks because they are the ones with the monopoly of issuance, not to the commercial banks and rest of the banking system. Except in certain specific passages, when Mises proposes to impose a 100% reserve requirement, he is referring to central banks, not to the entire banking system including commercial banks. This is important, because it means that even when proposing a 100% reserve requirement, he is not ruling out fractional reserves on the part of commercial banks. That is, even with the *second best* choice, there is room for fractional reserves.

8. CONCLUSIONS

The interpretation that Mises preferred free banking to a 100% reserve requirement seems to be very plausible and likely. There is not much need for a proof or demonstration of when Mises stops talking about theory and starts talking about monetary policy with the presence of central banks or regulations. If the references in the text are not clear enough, it should be sufficient to see Mises' own headings of each section.

Most citations from Mises that talk about the 100% reserve requirement and the idea of reinstating Peel's Act come from the chapters that deal with monetary and credit policy rather than those where pure theory is the main topic. This supports the interpretation that Mises' ideal was free banking. If it were *crystal clear* that Mises favored the 100% reserve requirement it would be enough to quote some passages from the theoretical chapters of *Theory of Money and Credit* instead of chapter 20 or some passages from the chapter dealing with "The Limitation on the Issuance of Fiduciary Media" in *Human Action*; instead, only a footnote and a partial quote referring to Fisher's plan are provided.

It should also be mentioned that in most cases where Mises talks about limiting the issuance of fiduciary media, this limit is to be applied to those banks with the privilege of issuance, which are central banks, not commercial banks. Limiting fractional reserves of commercial banks is a *non sequitur* from the need of limiting the central banks' power of fiduciary issuance. In some cases, he may have extended these limits to large commercial banks due to their significant role in the market, but other commercial banks should be free from this limitation.

The bottom line of Mises' suggestion is that central banks should cease to be banks to become currency boards, and commercial banks should be able to continue being banks with fractional reserves with no legislation privileges allowing them to avoid bankruptcy by devaluation.

The fact that this article is focused only on the same chapters from Mises where Huerta de Soto took his quotes was intended to emphasize the conclusion that a strong case for the interpretation that Mises preferred free banking could be made, and although Mises might not be too clear in some passages, only implicitly embedding free banking in *The Theory of Money and Credit*, clear references and passages supporting this interpretation can easily be found along most of his work.

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BOOK REVIEW

TANSTAAFL: A LIBERTARIAN PERSPECTIVE ON ENVIRONMENTAL POLICY, BY EDWIN G. DOLAN, 2011. LONDON UK: SEARCHING FINANCE, 240 P.

The book *TANSTAAFL: A Libertarian Perspective on Environmental Policy* from the American professor of economics, Edwin G. Dolan, represents an uncommon outlook on issues of environmental policy and economics. In the mysterious abbreviation TANSTAAFL, there is contained the principal motto which is pervading the whole book: "There ain`t no such thing as a free lunch". According to Dolan, the TANSTAAFL principle describes a simple fact that "Everything of value has a cost. Calling something "free" doesn`t make it free, it just make it harder to trace how great the cost is and who bears it." (p. 1). The uncommonness of Dolan`s book consists not only in the libertarian view on the topics of environmental policy and in applying the TANSTAAFL approach to many environmental problems, but also in the conception of this book. The first edition of professor Dolan`s book was published in 1971 (under the title *TANSTAAFL: The Economic Strategy for Environmental Crisis*) and now, forty years later, we can read not only an ordinary reprint of the original book, but a very actual text solving the environmental problems from today`s point of view. The actual edition of *TANSTAAFL* is supplemented with the author`s commentaries, which are as long as the original text. The commentary to each chapter is simply organized into two subchapters: *What has changed*, and *what has not changed*.

The 232 pages of this book are divided into eight chapters and one appendix, where the first two chapters are designed as an introduction into principles of ecological economics and into economics in general.

The third chapter (titled *Pollution and Price System*) deals (mostly) with externalities and their internalization (for example via tradable certificates for emission of pollutants). Back in 1971 Dolan wrote that putting a price on exhaust emissions would be the best way to solve the problem with pollution because "compared to the current system of direct control, the price system would offer distinct advantages with respect to efficiency, equity, and incentives" (p. 62). Compared to the situation in 1971, the main thing which has changed is the central environmental issue. Nowadays, the principal problem of environmental protection seems to be climate change. Why is climate change the number one environmental problem, which we can read about every day in newspapers and journals? Edwin Dolan offers his hypothesis to this change of focus on environmental issues: many formerly “serious” environmental problems were solved during the last forty years. And the second reason is that to be a climate-change skeptic is a good strategy for being politically visible and perhaps also politically successful. And what has not changed regarding the issue of pollution and price system during the last forty years? It is the political opposition to putting a price on pollution (and it doesn`t matter if it is the political opposition from the left or from the right.)

The use of natural resources and environmental quality in terms of efficiency as a major theme overlapping the entire book is discussed in charter 4 (*The Political Economy of Ecological Action*). The efficiency paradox marked in the text, which is seen as a “flesh and blood world of economy” where the decision is not only influenced by material relations among things but at the same time by social relations among men, discusses the question of negotiations. Could externalities not be purely resolved through negotiation? Dolan mentioned a simple question. Why is a simple solution of negotiation so unrealistic? Dolan. discusses the problem of organizing negotiations on reducing the negative effects of production (externalities). On the one hand Dolan mentioned problems of individual negotiation. Individual willingness to pay the full amount of costs is low because the benefits are less than its costs. On the other hand, collective negotiation is associated with an issue of “public good“ and the free-rider problem. Dolan stands on the threshold of institutional ecological economics. It defines the basic conditions for eliminating the free-rider problem – the group size and presence of visible causal relationships. As Dolan expanded: “Things can sometimes be arranged so that it will be worthwhile for the individual to act in the group interest even if others do not follow his example” and, “it is sometimes possible to rig the situation in such a way that it will not be reasonable for the individual to assume that the behaviour of others will continue uninfluenced by his own decision.“ (p. 88). According to Dolan, the key is the size of the group. This idea can be found in the whole range of institutional ecological economists: Arild Vatn’s concept of Fit, Scale and Interplay (Vatn, 2005) or his three-dimensional model; furthermore, Elinor Ostrom’s thoughts are fully compatible with its basic conception of the problem expanded on by Dolan.

Dolan in his original book also discussed problems in achieving collective benefits. As he connects those problems with ”public choice economics” in the Appendix chapter “What Has changed”, the main obstacle in achieving collective benefits are individual goals and normative and organizational problems. The democratic system in itself hides a number of pitfalls in the form of elected officials pursuing their own interests, then in the form of majority voting, where one group is outvoted and therefore disadvantaged - the optimum of each group is not taken into account. Another argument is the existence of lobbying and the fact that in reality, there are often adopted solutions that are highly beneficial for a minority.

Dolan mentioned at the end of the chapter the solution of environmental degradation seen in institutional settings. Externalities will be solved by free market mechanisms when individuals will be able to negotiate among themselves on the basis of clearly defined rules set up by the government. If the offender is forced to pay the entire cost of his actions, there will be an efficient allocation of resources. But this is, unfortunately, according to Dolan, impossible, given the past and current democratic system.

The problem of the population explosion is an issue in the fifth chapter (*Coping with the population explosion*). Also on this topic (in the first edition of the book) Dolan applied TANSTAAFL principle. In general, his suggestion in the 1971 edition (for the situation in the USA) was that the best population policy, which should be adopted by government, was no policy at all. Contrary to many authors at that time, Dolan believed that the population growth did not have a direct effect on the pollution and he assumed that the problem of population and pollution are separate and distinct. But Dolan doesn`t say that these two problems don't relate by no means – "population growth poses real challenges for environmental policy" (p. 127). Compared to 1971, today`s problems concerning population are different. Forty years ago the speed of population growth was higher than today, and Dolan even believed, that after the year 2100, the population would decline. Today, the main two problems of population are: "dramatic rise in the old-age dependency ratio" (p. 126) and immigration.

The three environmental problems that are independent of population growth have not changed: 1/ global and local pollution, 2/ non-renewable resources and 3/management of local and global commons. Dolan notes that these three problems, as well as other environmental problems, could be solved by using the TANSTAAFL principle – by applying the price system on these problems. With the issue of population and its explosion discussed in chapter 5, it is closely related to chapter 6 (*Environmental Problems and Economic Development*).

Dolan added to the original edition of the book, an appendix touching on the delicate issue of our time – global warming. The classical liberal conception which is suggested by him in the book clearly stands against an "environmental" approach associated by IPCC.

Dolan's great book should be read not only by any economist but also by environmentalists defending current policy and its way of dealing with environmental issues including global warming. Dolan persuasively shows us that shrinking market freedoms and increasing bureaucracy will not give us environmental quality. Markets and freedom will.

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