AUSTRIAN ECONOMICS AND NEW CURRENCY THEORY ON 100% BANKING
A response to Huber

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Resumen: Este artículo es una respuesta a Huber (2013) *Notes on the occasion of reading Jesús Huerta de Soto*. Primero, analizamos y criticamos los cinco argumentos principales que Huber lanza contra la teoría y la reforma monetaria que plantea Huerta de Soto. Segundo, clarificamos algunos de los malentendidos acerca de la teoría de Huerta de Soto y la Escuela Austriaca en general. Al final, procedemos a criticar a la Nueva Escuela Monetaria y el sistema monetario ideal de Huber, que es un sistema de dinero fiat 100%.

Palabras clave: Banca 100%, Nueva Escuela Monetaria, Escuela Austriaca, Reforma Monetaria, Huber, Huerta de Soto.

Clasificación JEL: E40, E50, B53, B59.

Abstract: This article is a response to Huber (2013) *Notes on the occasion of reading Jesús Huerta de Soto*. We first analyze and critique the five main arguments Huber brings forward against Huerta de Soto's theory and monetary reform plan. Second, we clarify some of Huber's misunderstandings regarding Huerta de Soto's theory and Austrian economics in general. Finally, we proceed to criticize the New Currency School and Huber's ideal monetary system of a 100% fiat money.

Key words: 100% banking, New Currency School, Austrian School, Monetary Reform, Huber, Huerta de Soto.

JEL Classification: E40, E50, B53, B59.

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I
INTRODUCTION

In *Notes on the occasion of reading Jesús Huerta de Soto*,[1] Joseph Huber (2013) reviews and criticizes Huerta de Soto's monetary treatise *Money, Bank Credit and Economics Cycles* (2009). Huber calls the Huerta de Soto's position defending a 100% reserve system of competing private moneys as *Neo-Austrian*. Huber criticizes *Neo-Austrian economics* from the point of view of the so called *New Currency Theory* (NCT). Proponents of the NCT regard themselves to stand in the tradition of the old currency school and propose a 100% reserve fiat money system with an independent central bank as the ideal monetary system. While the classical currency school had only demanded 100% reserves for bank notes, but not for demand deposits, defenders of the NCT do also demand 100% reserves on demand deposits.[2]

Defenders of NCT and 100% reserve Austrians have one thing in common: they are highly critical of fractional reserve banking. Nevertheless, defenders of NCT and full reserve Austrians defend monetary systems that are completely opposed. Huerta de Soto proposes a free banking system that adheres to general legal principals, i.e. 100% reserves on demand deposits. In his reform plan, there a new start is made with a 100% gold standard. In contrast, proponents of NCT argue in favor of 100% fiat money with an independent central bank.

In our article we will answer the following questions: What are the reasons for these differences in the proposed ideal monetary systems? What is the rationale behind NCT? How is it possible that proponents of NCT after criticizing the government privilege of fractional reserve banking defend as a solution even more government interventions into the monetary system? And why is Huber critical of a 100% gold standard?

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[1] https://sovereignmoney.squarespace.com/notes-on-huerta-de-soto-and-neo-austrian-school.

[2] Interestingly, Huber suggests that the lack of inclusion of deposits in the 100% requirement in Peel's Bank Act of 1844 might have been due to a successful lobbying by the banking industry (2013, 17-18). However, Huber fails to provide any proofs for his suggestion.

We will proceed as follows. First, we will analyze the five main arguments brought forward by Huber in his review against Huerta de Soto's position. Second, we will clarify some of Huber's misconceptions or misunderstandings regarding Huerta de Soto's book and Austrian economics in general. Finally, we will turn to a critique of NCT.

II
RESPONSES TO HUBER'S MAIN ARGUMENTS AGAINST HUERTA DE SOTO'S *MONEY, BANK CREDIT AND ECONOMIC CYCLES*

1. Huber's argument 1: The bank multiplier does not apply today

Huber argues that Huerta de Soto, as well as many other economists, have not understood that «modern cashless credit economies» work differently than traditional cash-based economies. Huber mantains that «a deposit at source comes no longer from depositing cash, but from crediting current accounts out of authorized fiat.» (2013, 5). According to Huber «a bank is neither allowed nor technically able to use customer demand deposits.» (2013, 7) He adds that the money of time deposits could not be used by banks either. Therefore, the orthodox multiplier model would not apply in a cashless economy. It would be only applicable to the continuous on- lending among non banks that does not create additional money.

Huber continues that banks issue currency (2013, 18). So he agrees with Huerta de Soto and most economists that fractional reserve banks may create money out of thin air. Maybe Huber was confused by Huerta de Soto's didactical example of the multiplier process. For instance, Huerta de Soto writes: «Let us suppose that Mr. X deposits 1,000,000 m.u. in Bank A… Bank A would then be able to create and grant loans to Z…Let us suppose that when Z withdraws his deposit he pays Y, who is a customer of Bank B and deposits the money there.» (2009, 218-19) In Huerta de Soto's example cash is deposited in one bank, then a portion is lent and leaves the bank. The cash is re-deposited then in another bank and so on.

We have to recall that Huerta de Soto uses a didactical example to illustrate the capacity of the banking system to create money out of thin air. It is true, of course, that today we do not live in a gold standard where first new gold is minted and then enters the banking system. Today central banks produce new base money which enters the banking system when the central bank purchases assets or lends to banks. The new base money appears on the asset side of the banking system, while on the liability side a deposit is credited. Using the new base money as additional reserves, banks may expand credits. When the bank customer uses the loan (which does not necessarily mean that he withdraws cash), base money may be transferred to another bank that then may expand credit.

Of course, money production today is different from money in a fractional reserve gold standard. In a gold standard gold is mined, coined and deposited in a bank. The bank has additional gold reserves on its asset side and a demand deposit on its liability side. In a fiat money standard, in contrast, it is the central bank that produces base money and purchases assets from a bank or lends to it. Then the bank owns additional reserves and may grant new loans crediting the lender's demand deposit account. The fact, that today in the fiat money system, base money usually does not physically leave the banking system should not conceal the underlying economic effects.[3] Economically credit expansion in the gold standard and cash less fiat money system is the same. The difference is that in the gold standard cash often leaves the bank, while in the fiat money system base money reserves are transferred electronically.

Huber forgets also that the scenario in Huerta de Soto's book could even occur today. Even in today's system deposits may be

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[3] Sometimes it is argued that banks first create new demand deposits (anticipating an increase in base money) and then ask the central bank for new reserves in order to fulfill the reserve requirement. This time sequence, of course, does not change the fact that the limiting factor for credit expansion is the base money production of the central bank.

withdrawn in cash, used for cash payment and deposited in another bank. Huerta de Soto's didactic example is completely realistic. Huber does not bear in mind that today cash is still used outside the banking system. We do not live in a cashless society. If part of cash formerly used outside the banking system is deposited in a bank, the bank may expand credit. Note that this event is equivalent to a new gold deposit in a fractional reserve gold standard. In both systems, new reserves can then be used to create new deposits by just crediting the account of a bank customer. Reserves do not leave the bank necessarily. Fiduciary media (demand deposits) are created out of thin air and lent making use of the deposited cash.

Thus, it is simply not true that demand deposits or time deposits cannot be used by a fractional reserve banking system. When cash or new central bank reserves enter a bank, its reserves increase. Assuming that the bank wants to maintain its former reserve ratio, the bank can grant more loans. When it grants a new loan, it credits the account of the lender and adds a new loan to its assets. If the lender takes out the money in cash, the reserves actually leave physically the bank. The fact that the lent money often does not leave the bank in cash should not prevent us from seeing that the deposited money is as a reserve to grant new loans.

2. Huuber's argument 2: There is no need to fund investments through savings

Using his arguments against the bank multiplicator Huber goes on to criticize Austrian capital theory. Huber states, that «investment does not need to be funded through prior savings…So a modern economy does not have to rely on savings to be able to invest.» (2013, 7).

Huber is correct that a fractional reserve banking system allows investment via credit expansion even though there have not been an increase in real savings. Credit expansion unbacked by real savings is precisely the cause of the business cycle. In order to produce capital goods, there must be saving – a renunciation of immediate consumption. Production of consumer goods takes time. There may be many stages or intermediate steps to produce consumer goods. These intermediate steps we call capital goods. Workers involved in the production of capital goods must be sustained by real savings. In other words, without real savings it is impossible to sustain workers during production processes that only after a certain period of time produce consumer goods. For instance, from the design of a new car until the sale of the first units, several years elapse. Evidently real savings are needed to sustain the car designer during the production period. As Huerta de Soto (2009, 273) puts it: «The *sine qua non* for producing capital goods is saving, or the relinquishment or postponement of immediate consumption.»

Huber's confusion may be caused by his neglect of the difference between real savings and money funds. This is also demonstrated by his statement that «[s]avings or own capital are still important as …collateral.» By concentrating on monetary funds, Huber misses the point of Austrian business cycle theory: After a credit expansion unbacked by real savings there is inevitably a recession due to a lack of real savings – real resources that are needed to complete investment projects. The bust does not arrive due to a lack of monetary funds. Producing money does not create the resources necessary to prevent the bust.

The main problem of NCT seems to be a lack of capital theory, which was also one of the shortcomings of classical currency theory.[4] NCT claims that fractional reserve banking causes «inflation, asset inflation, financial bubbles.» (2013, 8) Without an adequate capital theory NCT has a blind spot on the intertemporal discoordination that occurs when money is created out of thin air and injected through the loan market artificially depressing interest rates.

Curiously, Huber does not regard it as necessary to criticize Austrian capital theory extensively even though it is at the centre of Huerta de Soto's book. Revealingly, Huber states that capital

[4] At the time of the classical currency school, Eugen von Böhm-Bawerk had not developed capital theory yet. Today the neglect of capital theory is, therefore, a greater error.

theory is «just a peculiar Neo-Austrian preoccupation» (2013, 18) and that he would not «dwell in detail on the Austrian production model.» (2013, 10)

Huber's main critique is that the graphical illustration of the *structure of production* by Huerta de Soto is «a clumsy aggregate "production model"» (2013, 9). Indeed, Huerta de Soto himself writes that «it is nearly impossible to illustrate with charts the extremely complex structure of productive stages that make up a modern economy, Chart V-1 represents a *simplified* version of this structure…» (2009, 291 emphasis added). So Huerta de Soto readily admits that it is a simplification and continues writing that «this chart is not strictly necessary for explaining the essential theoretical arguments» (2009, 292). The chart of the structure of production is just used for didactic and illustrative purposes. To think that one can brush aside all capital theory (and most importantly the need for real savings for sustainable investments) by attacking these deliberately and admittedly simplified charts of the structure of production that are only used for illustrative or didactical purposes and which are not even necessary for explaining the underlying theoretical arguments is unworthy of an academic debate.

3. Huber's argument 3: Business cycles are not harmful

The neglect of capital theory ties also into Huber's next critique of Austrians. Huber claims that the business cycle would not be harmful: «To Austrians, however, any willful primary credit creation, as well as the ups and downs of economic cycles, is evil per se. To New Currency Theory, by contrast, such cycles fulfill a necessary role of structural change and readaptation in ongoing modernization processes.» (2013, 11)

Yet, economics is a value free science. Austrian economists do not claim that business cycles are *evil per se*. Such a statement belongs to the realm of ethics. NCT regards business cycles as something «natural» necessary for structural change. Huber does not understand that Austrian Business Cycle Theory (ABCT) is not about «structural change.» ABCT is not about the booms and bust of specific industries but about general booms and depressions. As Rothbard puts it:

> Suppose, for example, that a shift in consumer tastes, and technologies, causes a shift in demand from farm products to *other* goods. It is pointless to say, as many people do, that a farm depression will ignite a general depression, because farmers will buy less goods, the people industries selling to farmers will buy less, etc. This ignores the fact that people producing the *othe*r goods now favored by consumers will prosper; *their* demands will increase. The problem of the business cycle is one of general boom and depression; it is not a problem of exploring specific industries and wondering what factors make each one of them relatively prosperous or depressed. (2001, 6)

In the case of structural changes, an «old industry» declines because a new one rises. The factors of production that are freed up in the declining old industry are used to expand other industries. The losses in one industry are compensated by extraordinarily high profits in the new sector. There is no general depression. ABCT is not about structural changes but about an intertemporal discoordination in the economy leading to a cluster of errors and a general recession. Due to investments financed by credit expansion unbacked by real savings there results a bottleneck of resources. The result is a general crisis caused by a lack of real savings. There is no general lack of real savings in structural changes. Without an appropriate capital theory, Huber is simply blind regarding the differences between structural changes (or specific depressions) and general depressions.

Moreover, Huber's claims that business cycles would not be harmful. Huerta de Soto points to the inevitable consequences the misallocation of resources during the cycles brings about:

> Heavy inevitable losses of specific capital goods have been incurred to the extent that society's scarce resources have been channeled into investments that cannot be restructured and therefore are devoid of economic value. This gives rise to general impoverishment of society, a state which manifests itself as a decline in capital equipment per capita, resulting in a decrease in productivity of

> labor, and consequently, a further reduction in real wages. (2009, 380)

The scarce resource of society had been invested at places where they should not have been invested. Irreversible capital goods will be lost and productivity will fall lowering general living standard. Even if it is possible to restructure investments and shift resources from malinvestments with relatively low costs to new investments, precious time will be inevitably lost. Moreover, often the channeling of resources into new projects takes a lot of time and is quite costly. Think of a worker schooled in a certain trade that needs a new training for his new job. If factor markets are inflexible, factors may remain idle for a longer time. Other costs of the business cycle are the «[p]sychological stress and wear» during the credit expansion and a «widespread demoralization» as a result of the depression (Huerta de Soto 2009, 457-58). Thus, it is surprising that Huber regards the malinvestment of resources and lowering of living standards caused by the business cycle as something natural.

4. Huber's argument 4: Economic growth requires an increase in the money supply

Much emphasize and repetition is put by Huber on his main argument against the gold standard, namely that economic growth would require an increase in the money supply. Interestingly, Huber claims that «[Huerta de Soto] does not discuss to what extent a growing economy might need a growing money supply; as if prices and actors' attitude and expectations were organically downward any time. Accordingly, he does not concede that fractional reserve banking, besides having been a somewhat fraudulent practice, might also have been a necessity inherent to an extensively and intensively growing economy that lacks an adequate supply of bullion and silver coin.» (2013, 10).

This statement is intriguing on several accounts. First, in the section where he responds to objections to his reform plan, Huerta de Soto spends fived pages titled «*The proposed system would* *not allow the money supply to grow at the same rate as economic development*» on the old myth that a growing economy would need an increase in the money supply. Huber must have overlooked that section completely when he writes that Huerta de Soto does not discuss the alleged need for growth to be accompanied by increases in the money supply.

Second, Huber seems to defend fractional reserve banking when he describes the need for growth to be accompanied by increases in the money supply while in the rest of his article he attacks fractional reserve banking for causing inflation and bubbles and argues for 100% reserves. According to Huber the introduction of additional fiat money into «a growing economy is enabling and benign as long as this keeps within the limits of the economy's productive potential so that cycles do not go wild.» (2013, 12) Without fiat money inflation Huber fears that «society would get stuck in a deflationary mud.» (2013, 21) But what is the reasons for this fear? Huber considers prices not to be flexible downward. In short, Huber falls prey to the quite common deflation phobia.[5] His argument is wrong for several reasons.

First, growth deflation does not require an *ex post* downward flexibility of input prices. In fact, a growth deflation is the effect of an increase in productivity. The increase in productivity causes an increase in overall production. The effect of this increase in overall production is then a fall in consumer prices which is the most natural economic development. [6]

As Huerta de Soto puts it:

> Not only is [the constant drop in prices of consumer goods and services] perfectly compatible with sustainable economic development from a theoretical and practical standpoint, but it would also guarantee that the benefits of such growth would profit all citizens through a constant increase in the purchasing power of their monetary units. (2009, 751)[7]

[5] On the widespread deflation phobia see Thornton (2003), or Bagus (2007).

[6] See Selgin (1997).

[7] Huber, in contrast, states that «[o]nly the rich would be happy, as usual.» (2013, 22).

The fall in output or consumer prices does not pose any problem for entrepreneurs in general. Due to the increase in productivity, output increases in volume; i.e. revenues must not fall in a growth deflation, since the decrease in output prices is compensated by an increase in volume.

In fact, there are several episodes in history that illustrate growth deflations. Fast economic growth and falling prices have been compatible, for instance, during the 30 years following the American Civil War.[8] Falling prices did not harm the high economic growth; in fact, they were just the result of economic growth leading to an important increase in real wages.

Second, prices are never totally rigid in a free market. In a free market people can voluntarily agree upon prices, in this sense free market prices are flexible. Naturally, people can agree on the market on prices that are lower than they have been in the past. People may even agree to change existing contracts that had fixed prices during the term of the contract. In any case, market participants always try to anticipate the behavior of prices when they engage in long-term contracts.[9] In function of their anticipation market participants will gain profits or suffer losses. Note, that these profits or losses do not pose problems for the economy as a whole, since the losses of one party that had anticipated the evolution of the relevant prices badly, are the profits of the other party. There is a redistribution between the two parties of the long-term contract.

When in a 100% gold standard world the money supply increases slower than economic growth, there is a tendency toward falling prices. Market participants would adjust their expectations toward this tendency. If people expect prices to fall over the term of a contract, they will take that into account.

The price deflation does not pose any problems of economic coordination. More specifically, in a free market there is no involuntary unemployment due to price deflation. Workers are always free to settle for lower wages that are in line with their discounted marginal value product in order to find a job. Of course, in

[8] See Bagus (2007).

[9] On price flexibility in a free market see also Bagus and Howden (2011, 2012).

a world of privileged labor unions and chronic price inflation, labor unions have made wages rigid downward. Yet, this is no argument against price deflation but an argument against labor union privileges.[10] Privileged labor unions may push wages above market clearing prices independent from the general tendency of prices. For instance, when prices are expected to increase 10%, and labor unions demand wage increases of 20%, this is equivalent of demanding constant wages when prices are expected to fall 10%.

Third, price rigidities are no independent of monetary institutions (Hülsmann 2003). In today's world, many prices, especially wages, are highly inflexible downward. But this is so, because we live in a fiat money world, where the money supply and prices increases continuously. The expectations of market participants have adapted to these monetary institutions.

Prices are rigid downward because of continuous fiat money inflation. Economic agents expect that authorities such as central banks will produce money to prevent prices from falling. In a 100% gold standard, where consumer prices continuously fall, price expectations would be completely different. Consequently, wages would be much more flexible. As Huerta de Soto puts it:

> Economic agents who have only lived in environments of inflation based on monetary and credit expansion may feel we have just described a panorama [of continuous slight price deflation] from outer space, but it would be a highly favorable situation, and economic agents would become accustomed to it with no major problems. (2009, 776)

Finally, Huber argues that a 100% gold standard might «come with a zero or negative interest rate…What would a zero or negative interest do to "deferred consumption", i.e. saving for investment, in the sense of the Neo-Austrian model of production and finance?... there would be no great number of debtors and real investors.» (2013, 21) In other words, he fears that there would be no savings and investments with interest rates close

[10] On the future of labor unions see Bagus (2011).

to zero implying high real interest rates in a scenario of price deflation.

Huber's fear is unfounded out of several reasons. First, if interest rates are low it is the result of a very low time preference rate and high savings. In fact, if people save less, interest rates increase. Second, the market rate of interest in no case can fall to zero or become negative as Huber suggests. No one would lend at negative interest rates on a free market but rather just deposit the money.

Third, as prices fall, the Pigou effect would kick in (Huerta de Soto 2009, 775). Real cash balances would increase and economic agents could feel richer and increase their consumption, which in turn pushes time preferences, and consequently, interest rates up. Fourth, entrepreneurs would always find financing if the accounting profits exceed the prevailing market rate, even if this is very low (Huerta de Soto 2009, 775). Thus, the key factor for investments is the expectation to reap profits. When there is a positive spread between buying and selling prices that exceed the interest rate, entrepreneurs will invest. Fifth, as market rates approach zero, the present value of capital goods increases because the future cash flows generated by them is discounted by a lower rate. This will give rise to important profit and investment opportunities (Huerta de Soto 2009, 776).

Finally, there is another reason why low interest rates would not deter investments. This is so, because investments must not be financed via loans. Investments can also be financed through equity or retained earnings. Entrepreneurs may invest their savings in their own projects if they expect a return higher than the prevailing market rate.

Beside the deflationary character of a 100% gold standard, Huber provides another auxiliary argument against the gold standard. He maintains that digging for gold is «sheer ecological nonsense.» (2013, 20) But why would it be ecological nonsense to produce a medium of exchange? Human beings are better off using a medium of exchange in the same way human beings are better off driving cars which requires digging for iron ore. Cars are better and faster means of transportation than horses, which do not require the digging for iron ore. Gold is a better medium of exchange than fiat money since it cannot be manipulated by governments among other reasons. Thus, in the same way that digging iron for cars is not ecological nonsense, digging for gold to use it as a medium of exchange is not ecological nonsense either. In any case, individual decisions in a free market will decide if they opt for gold as a currency, and if gold will be mined for this purpose.[11]

5. Huber's argument 5: Central banking is not socialism

Finally, Huber (2013, 15) criticizes Huerta de Soto (2009, 654) for regarding central banks as central planning agencies. According to Huber, central banks cannot strictly control and regulate the money supply and the banking system. For Huber such a view would be a «grotesque misrepresentation.» Huber's maintains that «[c]entral banks today determine "neither" the money supply nor the structure and level of interest rates. The degree to which they may "influence" these "variables" is rather modest.» (2013, 15). Huber attacks Huerta de Soto's assessment of central banks as central planning agencies attempting to show that central banking is unproblematic in principle. For him central banking is part of the solution of the problem of fractional reserve banking.

In contrast to Huber's statements, however, central banks have a decisive influence on the money supply and interest rates. The influence of the money supply and interest rates is what central banks aim at. It is their official mission. Central banks manipulate these variables in order to attain their official ends, such as a stabilization of the purchasing power of money or the stabilization of the financial system.

Central banks have an almost perfect control of the supply of base money. They are the monopolist issuer of base money. Only

[11] Most gold would be mined anyway as it is valued for industrial and consumer purposes. Moreover, production that does not violate private property rights is always an improvement of the «environment» or of world inhabited by human beings, at least from the point of view of involved actors. Therefore, it is totally arbitrary to speak of ecological nonsense in case of some production processes. For the view that the purpose of production is to improve the environment see Reisman (1998, ch. 3).

counterfeiting may also change the supply of base money. By injecting base money into the loan market, central banks manipulate the credit expansion of the fractional reserve banking system.

Central banks act as central planners pretending to know what the optimal money supply and the best interest rate is. However, they lack the necessary information to give their interventions a coordinative meaning. Therefore, Huerta de Soto writes, «like Gosplan, the most important economic-planning agency of the now extinct Soviet Union, the central bank is obliged to make an unceasing effort to collect an extremely vast quantity of statistical information on the banking business, the different components of the money supply, and the demand for money.» (2009, 656)

But is central banking really socialism? Ultimately, socialism consists in an institutionalized aggression against the free exercise of entrepreneurship (Huerta de Soto 2010, 49). It constitutes an institutionalized aggression against private property rights (Hoppe 1989, 2). And indeed, private property rights are systematically and institutionally violated in the field of money and banking.

First, we have a public fiat money that only a monopolist is allowed to produce. Second, fiat money is declared legal tender which constitutes another violation of private property rights. Third, the monopolist determines how much base money is produced and in which terms it is injected into the economy. Fourth, there is a web of regulation of the banking system restricting free competition in money and banking. Fifth, central banks also control and oversee the banking system. The banking system depends ultimately on the central bank as a lender of last reserve due to its instability caused by fractional reserve banking. In short, central banks have amassed enormous power over the financial system. They are central planning agency thanks to government interventions and privileges that violate private property rights extensively. Today's central banking is socialism in the monetary sphere.

III
CLARIFICATION OF SOME MISCONCEPTIONS ON AUSTRIAN ECONOMICS

Unfortunately, Huber does not always present the position of Austrian economists correctly. Huber's review contains several misconceptions and errors concerning Austrian economics that need to be corrected. These misconceptions may explain, in part, Huber's confusion and his repeated misunderstanding of Huerta de Soto's arguments.

First, the Austrian school is more diverse than Huber presupposes. Huber (2013, 2) states that the «Neo-Austrian position» is to combine free banking with a full gold reserve. However, there are several Austrian economists such as White (1984), Cachanovsky (2011) or Evans (2013) that, in fact, defend fractional reserve banking. These authors do not see any economic or ethical problem in the practice of fractional reserve banking and defend what they call *fractional reserve free banking*.[12]

Second, Huber (2013, 2) gives the impression that Huerta de Soto wanted to impose a «full gold reserve» as the only acceptable monetary system. Huber does not mention that Huerta de Soto defends currency competition. It is true that Huerta de Soto's (2009, ch. 9) reform plan puts the monetary system on a 100% reserve gold basis using today's central banks' reserves. However, once the banking system is on 100% gold reserves, there is no restriction to currency competition. So there is no guarantee that gold will be continued to be used as money in Huerta de Soto's ideal system contrary to the impression Huber gives. Austrian economists are not fixated on gold as money. They usually defend free currency competition.[13]

Third, Huber maintains that in Austrian theory, it is the «abandoning the gold standard… in favour of pure fiat money…imposed by legal tender laws» which allows «central banks to expand

[12] Fractional reserve free banking is arguably a misnomer since it is questionable to which extent one can talk about «free banking» when the property rights of depositors are violated.

[13] The locus classicus is Hayek (1976).

their balance sheets» (2013, 3) and causes economic and financial cycles. Yet, central banks may expand their balance sheet without abandoning of the gold standard. Similarly, business cycles may be triggered within a (fractional reserve) gold standard. The historical gold standard was a fractional reserve gold standard. Therefore, credit expansion unbacked by real savings was possible leading to artificial booms. Even before the advent of central banking, credit expansion had caused recurring business cycles (Huerta de Soto, 2009, pp. 479-482). Huerta de Soto (2009, pp. 482-493) also describes many business cycles that occurred during the classical gold standard under the regime of central banking. In short, the abandoning of the gold standard was no necessary condition for credit expansion and economic cycles.

The abandoning of the gold standard is, however, very important for the size and duration of business cycles. The introduction of fiat money allowed cycles to increase in length and scope as fiat money can be created by central banks without limits to save fractional reserve banks while this is not the case under a gold standard. Therefore, cycles may continue for a longer time made possible by additional injections of fiat money.

Fourth, Huber argues that «Neo-Austrians» maintain that newly created money is used only for investment purposes, «as if in the first instance all money were used for real-economic investment purposes» (2013, 10). Huber claims that Huerta de Soto neglects the possibility of financial investments which would cause the whole theory of the business cycle to be invalid.

Indeed, newly created credit must not necessarily be used to finance investments in the production of real goods. There may be consumer credits or loans for financial investments, such as stock purchases. Yet, this does not invalidate Austrian business cycle theory. Most consumer credits today are loans to finance durable consumer goods. Durable consumer goods are true capital goods that render consumer services to its owners for a certain period of time (Huerta de Soto 2009, 406). Therefore, durable consumer goods industries tend to thrive during artificial booms representing malinvestments.

Even if addition consumer loans created through credit expansion finance current consumption, this normally means that interest rates tend to fall. As money is injected into the consumer loan market, money funds are liberated to be lent to finance investments in stages furthest from consumption. Only in the case that the additional loans do not free up funds to grant loans for investment purposes, the structure of production is not lengthened but actually shortened. As Huerta de Soto puts it:

> At any rate credit expansion always gives rise to the same widespread malinvestment in the productive structure, whether by artificially lengthening the existing structure (when expansion directly affects the capital goods stages, financing durable consumer goods) or shortening it (when credit expansion directly finances non-durable consumer goods).» Therefore, Huerta de Soto does not assume that «in the first instance all money were used for real-economic investment purposes. (2009, 408)

Moreover, Huerta de Soto does not only discuss consumer credit but also loans granted for financial investments (2009, pp. 459-466). Therefore, Huber's implicit accusation that ABCT is incorrect because it neglects financial investments by stating «monetary and financial affairs cannot be understood on real-economic "productive" grounds alone» is unfounded. Arguing that Austrian theory sustains that monetary affairs can be understood on real grounds alone is a straw man argument, since Huerta de Soto or other Austrians did never claim such a thing.

It is a misrepresentation by Huber to claim that Austrian economists have not considered the possibility that credit expansion finances financial investments. In fact, Austrian economists have dealt intensively with financial speculations and financial markets. Beside Huerta de Soto, Machlup (1940), Bagus (2008) and Hülsmann (2013) have analyzed the role of financial markets during business cycles.

It is true that newly created credit may flow first into the stock market or other financial markets. But this does not mean that there would never be an effect on the real structure of the economics. First, stock market loans may free up resources to invest in real production processes as credit markets are like communicating tubes. Second, financial markets itself will tend to grow due to the inflow of new money constituting a distortion of the structure of production. Third, while it is true that in the short-run money created out of thin air by credit expansion may be absorbed by financial bubbles, this is not the end of the story. When stock prices increases, the cost of capital falls. The incentive to issue new stocks increases. The proceeds from the issue of new stocks incited by the stock market boom are likely to be used to finance new investment projects. Moreover, as stock markets rally and become ever higher valued, professional speculators will start to sell overvalued stocks using the funds to invest in the relative undervalued real economy. Thus, sooner or later the newly created money will flow out of these markets and will be invested in the real economy. In other words, credit expansion may take a short detour through speculative asset markets but sooner or later the newly created money will flow into real investments and distort the structure of production. In short, the possibility of financial investments does not invalidate Austrian business cycle theory at all.

Fifth, Huber claims that «Huerta de Soto fails to consider the undesirable effects of banks'discretionary credit creation on ownership of financial assets and distribution of income.» (2013, 11). A careful reading of Huerta de Soto, however, reveals that he describes the redistribution of income caused by credit creation of fractional reserve banks in detail:

«Thus begins a process of income redistribution in which the first to receive the monetary units benefit from the situation at the expense of all other economic agents, who find themselves purchasing goods and services at rising prices before any of the newly-created money units reach their pockets.» (2009, p. 533)

Huerta de Soto also mentions the redistribution of income caused by credit expansion (2009, 380), as well as the redistribution between creditors and debtors which he classifies it as «unjustified» (2009, 775). Furthermore, Huerta de Soto mentions the advantage that bank stockholders have received due to the privilege of fractional reserves (2009, 796).

Indeed, Austrian economists, in contrast to most neoclassical economists, have analyzed the distributional effects of fractional reserve banking and central banking in detail (Rothbard (1990), Hülsmann (2008; 2013) or Marquart and Bagus (2014)).

It is also untrue that Hayek «refused to discuss distributional justice» (Huber 2013, 11). Hayek just defended the conception of commutative justice (justice of rules and procedures) against the conception of «distributional justice» as an end-state justice. Hayek (2012) even titled volume two of his work *Law, Legislation and Liberty: The Mirage of Social Justice* and wrote an article titled «the atavism of social justice» (Hayek 1978). Therefore, Hayek is one of the philosophers and economists, which discussed distributional justice most extensively. It is therefore remarkable that Huber states that Hayek «refuses to discuss social justice.»

Huber even asserts that «[i]ncome distribution is seen [by the Austrians] as a market result which has more wisdom to it than we are supposed to understand. As if market results were a judgment of God.» (2013, 11). First of all, it is important to point out that the income redistribution caused by the privilege of banks to hold only fractional reserves and by monopolist money production is not something what most Austrian would call «market results.» These income redistributions are the cause of interventions into the monetary sphere.

Moreover, factor income on free markets is not an enigma as Huber seems to suggest. In a free market there is a tendency that the services of factors of production will be remunerated by their contribution to the productive process, i.e. according to their discounted marginal value product.[14] In a free market income distribution is no mystery, or something beyond understanding.

Sixth, Huber claims that gold would be a «sort of master meter of monetary value» in the ideal monetary world of Austrians (2013, 20). This statement shows again how far Huber is from understanding Austrian monetary theory. For Austrian economists, money does not measure anything. It is not a meter. It is just a commonly accepted medium of exchange. As Ludwig von Mises puts it:

[T]he notion of a measurement of value is vain. …[T]he spurious idea that values are measurable and are really measured in the conduct of economic transactions was so deeply rooted that even

[14] For an in depth explanation of factor pricing see Rothbard (2001, ch. 7).

eminent economists fell victim to the fallacy implied… Most of the lesser economists simply maintained that money serves «as a measure of values». (1998, p. 205)

Seventh, Huber suggests that Austrians adhere to the model of perfect competition by stating that the «Neo-Austrian production and money program is taken from an ideal model world where competition is supposed to be perfect» (2013, 21). Yet, Austrian economists do not adhere to the model of perfect competition. In fact, Austrian economists such as Hayek ([1968] (2002), Kirzner (1973), Don Lavoie (1985) and Huerta de Soto (2000, 14) himself have criticized again and again the unrealistic neoclassical model of perfect competition. Austrians emphasize that equilibrium is never reached and use the concept of the evenly rotating economy for analytical reasons. The graphical illustration of the structure of production in Huerta de Soto (2009) is only a didactical tool. It is not even necessary to prove the underlying theoretical arguments. As Huerta de Soto writes (2009, 301) «[i]n the market there exists a trend (driven by the force of entrepreneurship) toward the equalization of the "rate of profit" in all economic activities.» No more, no less. In fact, Huerta de Soto defines competition as a dynamic process of rivalry.

Eight, Huber asserts that Austrian economists assume that all individuals have equal information. He maintains that in the «ideal model world» of Austrians «participants are on an equal standing with regard to information…» (2013, 21). Huber's statement is another harsh misrepresentation of the Austrian position. As Huerta de Soto (2010) following Hayek (1945) shows, entrepreneurial information is subjective, exclusive and disperse. There is never an equal standing with regard to information in the Austrian view.

Ninth, Huber also seems to imply that Austrian believe in perfect price flexibility. He maintains that Austrians assume that «all prices and wages have unimpaired downward elasticity» (2013, 21). As we have already elaborated above, some prices are usually fixed for longer periods, such as a wage contract of a one year term, while others such as retail prices may be changed at any moment. In any case, in the free market there is an optimal amount of price and wage flexibility.

The agreement to fix a price for longer periods does not pose a general economic problem, but will only result in profits and losses when prices behave differently than expected. Suppose, for instance, that consumer good prices are expected to fall, and therefore a certain worker agrees to settle for a lower wage for a period of one year. If at the end consumer good prices increase, there is a loss for the worker, who expected a higher real wage, but a corresponding gain on the other side of the contract.

In any case, contracts can be renegotiated if necessary in a free market. Of course, government interventions can impair the downward elasticity of prices. Austrian economists will be the first to admit that. In fact, Mises discusses the case of minimum prices in his magnum opus *Human Action* (1998, ch. XXX). But the harmful effects of minimum prices do not affect the desirability of a 100% gold standard, because government interventions preventing prices to fall can be eliminated. In fact, the pressure to eradicate these barriers will increase in a world of slightly falling prices.

Tenth, Huber states that for Austrian economists «market competition among banks [would be] the general solution to all […] problems [in banking]….As if banking today were not the business of huge multinational oligopolies, in fact, private corporate planning bureaucracies, distorting and bending markets according to their private business advantage.» (p. 14) It is true that today the banking system is dominated by big interconnected banks, many of them considered too big to fail. However, Austrian economists would not claim that today's world is a world of free banking. Today banks enjoy the privilege of fractional reserves, have obtained implicit or explicit government bailout guarantees as well as the support of a monopolistic money producer: central banks. Free competition in banking would limit and reduce the power and size of banks.

Huber seems to fear that banks and other companies in free competition would become monopolists: «Would one reproach large capitalist corporations for practicing "socialism"»? (2013, 15). However, in free competition there is always a limit for the growth of companies as explained by Rothbard (2001, 547-48). The market always tends to establish the most efficient way of production. It is consumer satisfaction that determines the growth and decline of a company. If companies grow vertically, some factors end to be traded on the market. There are no market prices anymore for these factors, which makes economic calculation of the most efficient ways of production ever more difficult. As economic calculation gets more difficult due to a lack of market prices, a vertically growing company becomes inefficient and loses ground to competitors. In socialism, one agent owns all resources which makes economic calculation impossible and explains the inefficiencies of it.

The amount of confusion and misrepresentations of the Austrian position in Huber's review is alarming. There remain several possible explanations. First, Huber did not read all of Huerta de Soto's book, but only excerpts and he has only a very superficial knowledge on Austrian economics. Second, Huber has read many works of Austrian economics including the book he reviewed, but misunderstood or forgot. Third, Huber has mastered Austrian economics but deliberately misrepresents it.

I tend toward the first possibility. It is, of course, no sin to be ignorant of economics in general and Austrian economics in particular. There is no law obliging to have read or understood Austrian economics. But it is irresponsible to criticize and misrepresent a theory or review a book without having read or understood it.

IV
A CRITIQUE OF NCT

Even though Huber does not offer a full fledged exposition of his alternative reform plan, he sometimes praises the NCT alternative vis-à-vis Huerta de Soto's. We will now proceed to criticize inconsistencies and errors in Huber's own view. In short, Huber as a representative of NCT defends 100% fiat money introduced into the economy by an independent central bank.[15]

[15] Other representatives are Benes and Kumhof (2012).

The first question that comes to mind is: How independent can a central bank, a monopolist fiat money producer, really be? From what is it independent? Can it be independent from the government?

Who will name central bankers, if not politicians? Who would be able to change the status of the central bank, or the central bank legislation? Could a majority of the parliament or a qualified majority end the central bank's «independence»? Could the status of the central bank not be altered through a constitutional change? The answer is, yes, of course. The state created the central bank as one of its institutions, and as the ultimate decision maker the state can modify the central bank according to his desire.

Moreover, central bank always remains dependent on a government privilege, i.e. political monopoly. A free market company has to serve consumers to thrive. The central bank's power stems from its political monopoly. Thus, the idea of an «independent» central bank is an illusion. The central bank is a creation of the state. Without the state, or even without the monopoly for issuing legal tender, the central bank would be powerless. All its power the central bank owes to the state.

Huber wants to establish the central bank as a fourth independent power beside the legislative, executive and judiciary. Yet, the «separation of power» (Huber, 2013, p. 16) is just an illusion. There is no separation there is just a subdivision. The state, like any other organization, may subdivide into branches. Nevertheless, all branches form part of the very same organization. There is a tendency that members of the same organization support decisions that increase the power of their organization. For this very same reason, the classical liberal ideal to limit the power of the state through separation of power or constitution boundaries has utterly failed. As Hans-Hermann Hoppe in relation to the «separation of power» in the U.S. puts it:

[A]lthough the Supreme Court may disagree with particular acts of Congress or the president, Supreme Court judges are nominated by the president and confirmed by the Senat land remain dependent on them for funding. As an integral part of the institution of government, they have no interest in limiting but every interest in expanding the government's, and hence their own, power. (2001, pp. 276-77)

In the same way, central banks have no interest in limiting the government's power.

Even if central bankers would stay «independent» from the government there would remain practical problems of Huber's proposition to «keep [fiat money production] within the limits of the economy's productive potential so that cycles do not go wild» (2013, 12). What is the productive potential of the economy and how can the central bank know it? If the central bank pretends to know or calculate that potential, we are faced with a typical Hayekian pretence of knowledge (1975). There is no way to determine this productive potential unarbitrarily. As a consequence, discretionary power is given to the central bank.

Another disadvantage of Huber's proposal vis-à-vis a 100% gold standard is the monetary nationalism in a world in which each nation issues its own fiat currency. Huber's code words for monetary nationalism are «national monetary integrity and sovereignty». A world-wide gold standard as envisioned by Huerta de Soto (2009) fosters economic integration, connects markets and improves the international division of labor. Monetary nationalism, in contrast, allows for beggar thy neighbor policies through competitive devaluations as we saw during the 1930s. These competitive devaluations do not only disrupt international trade and the international division of labor, impoverishing the world, they lead also to conflicts between nations. In the 1930s it ended in war. Huber's proposal, therefore, incites conflicts between nations.

Furthermore, for Huber the important question is who should get the seigniorage (profits from monopolistic money production): private banks or the government; and which monetary policy should be pursued (2013, 17-18). As Huber puts it:

The real question is who has the prerogative of determining the currency, of issuing and controlling the money supply and of benefitting from the seigniorage – the state or the banking sector…; and in whose interest monetary policy is carried out – in the state's or national interest, to the benefit of the public purse, or in the interest of banks'privileged status and extra private banking profits. (2013, 18).

Huber's responses are that seigniorage should be socialized and monetary policy should be conducted by a central bank in a 100% fiat money standard in the state's interest.

Unfortunately, Huber neglects the more fundamental questions: why should there be seigniorage and monetary policy at all?

In a free market monetary system there is no seigniorage. There are only the profits of competing money producers whose profit rate tends toward the rate prevailing in the economy. There are simply no monopolistic gains from money production. Similarly, in a 100% gold standard there is no need for monetary policy. No one determines an interest rate at which new base money is injected into the economy. In fact, one of the great advantages of such a system is that it can do without a monetary policy. It is precisely one characteristic of monetary policy that it is always carried out in favor of some people to the detriment of others, in favor of the first recipients of the monopolistic money to the detriment of the last receivers. There is always a redistribution. The determination of monetary policy for the benefit of the general public is always arbitrary. In practice, political pressure and well-organized interest groups influence monetary policy.

There are more problems to Huber's proposal to carry out monetary policy in the national interest. What is the state's or national interest? A state or a nation are not acting beings with ends or interests. Strictly speaking only individuals have interests. Of course, the group of individuals that belong to the government often shares common interests. Yet, the interests of politicians may and do contradict with the interests of most private citizens. The interests of private citizens also diverge when it comes to monetary policy. The interests of creditor and debtors, of entrepreneurs and workers, of first and last receivers of the new money are opposed. In short, there is no way to determine non-arbitrarily a nation's interest regarding monetary policy.

We may, however, metaphorically speak of an interest of the state vis-à-vis its citizens. The state, meaning the individuals being part of its organization, has an interest, which is to increase the state's power; i.e. getting the control over more resources. These resources come from private citizens. Indeed, we fear that in such a system that Huber proposes, i.e. 100% fiat money with a central bank, the power of the state will increase importantly. Simultaneously individual liberty will decline. In Huber's system the government will receive more seigniorage than it receives today. Consequently, the government will control more funds. The more funds the government controls, the more it may distort the economy and hurt the private sector. In fact, the welfare-warfare state may thrive in a 100% fiat money system.

Huber criticizes the unfair distribution of income in a fractional reserve banking system. Yet, the system he proposes leads to massive redistribution of income as well. This is so, because the seigniorage is never distributed to everyone in the same rate but flows in to the government's coffer. From there it flows via transfers and subsidies to individuals and companies connected to the government. The first receivers of the new funds benefit to the detriment of the last receivers.

The argument that the central bank would be influenced by pressure groups, is countered by Huber stating that «…gold is not at all, and never was, independent from pressures and interferences. Control of gold and silver…awaked the powerful greed no less than does free creation of fiat money» (2013, 20). It is true that pressure groups may try to influence central banks as well as miners (in a gold or silver standard) in order to benefit from money production. There are, however, important difference between competition in money production and a government monopoly. In free competition, there is open entry into the production of gold and silver. Anyone can buy land and dig for gold and silver. There is rivalry and the most competitive rivals prevail, i.e. those that satisfy consumer wants most efficiently. In a market economy a company increases its market share due to producing goods or services that satisfy consumers better than the competitors. The market share is result of voluntary interactions. In contrast, the power of a monopolist fiat money producer is due to its legal privilege. At the end of the day this legal privilege is enforced by violence or the threat thereof. Therefore, it is ironic and misleading that Huber writes «*free* fiat money production» (emphasis added).

Moreover, Huber's argument concerning money production can be easily transferred to the production of other goods such as cars. Free competition in the production of cars may attract entrepreneurs with «powerful greed». Yet, entrepreneurs will only earn money if they produce an excellent product. An alternative is to nationalize car production and have a public monopolist car producer. The monopolist car producer lacks the incentive to innovate and produce better cars at lower prices. The result, consequently, will be a relatively bad product. The same is true for monopolist money production vis-à-vis competitive private money production.

There is another effect of a 100% fiat money that needs to be discussed. A 100% fiat money system may also distort the structure of production as newly produced money is not injected to all individuals in the same amount. Necessarily, some individuals, companies and industries will be subsidized through a relative early reception of the new money to the detriment of later receivers. Consequently, some companies and industries may expand on cost of others. The structure of production will be distorted in a similar way it is distorted by credit expansion unbacked by real savings. The subsidized companies and industries will start to depend on the continuous money stream they receive. If the injection of new money stops or slows down, there may be not sufficient demand to sustain the expanded industries. In the following, a recession similar to the one described by Austrian business cycle would ensue.[16] Malinvements would be liquidated and the structure of production aligned again with consumer preferences. Yet, with 100% fiat money distortions may be maintained for a very long time, if the government continues to subsidize individuals and companies, even though it may have to do so in increasing doses.

A last problem of his system is pointed out by Huber himself: fiat money «can be provided in any required quantity.» (2013,

[16] As for empirical evidence, a 100% fiat money system was introduced in Argentina by General Perón. The result was high inflation, a distortion of the structure of production and a profound recession. As Huerta de Soto puts it, «it [the Argentinian experience] confirms the need to consistently couple such reform [100-precent reserve ratio] with a complete privatization of money and the elimination of the central bank.» (2009, 789).

20) The possibility to produce money in unlimited quantities is precisely one of the main disadvantage of fiat money. In a severe crisis, the political pressure will become overwhelming for an «independent» central bank to provide new fiat money to bailout companies and individuals in trouble. Economic agents know, of course, the central bank's capacity to provide any quantity of money and will rely on it if they are well connected to the government or considered too big to fail. The result is moral hazard.

V
CONCLUSION

Huber's critique of Austrian economics in general and Huerta de Soto's *Money, Bank Credit and Economic Cycles* in particular fails. Indeed, all of Huber's points have already been rebutted by Huerta de Soto (2009) himself. Banks do expand credit and can multiply the original supply of base money. For the «bank multiplier» it is irrelevant if cash leaves the bank physically. Huber's errors stem to a large extent from his non-understanding of capital theory which is also explained extensively in Huerta de Soto (2009).Investments must be funded via real savings to be sustainable. The liquidation of malinvestments and destruction capital goods lowers the living standard of society. Economic growth must not be accompanied by increases in the money supply. If the economy grows faster than the money supply, the purchasing power of money just increases without posing any general economic problems. Lastly, central banks contain all the characteristics of central planning, i.e. socialism.

What is most disturbing in Huber's text are the misrepresentations of the Austrian position. Someone with only a superficial knowledge of Austrian economics would not have written such misrepresentations. Probably, Huber has not even read all of Huerta de Soto's book. But if you do not read a book completely, you should not write a review of it.

Finally, Huber's alternative of 100% fiat money with an independent central bank contains its own problems. First, the «independence» of a central bank is an illusion. Second, fiat money may be produced without limit, leading to moral hazard on part of economic agents that may hope to be bailed out. Third, the production of new fiat money by the central bank leads to redistribution and distortions of the structure of production which may continue for a long time. Lastly, such a system fosters the expansion of state power and the decline of individual liberty.

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