

“Neutrality of money” versus “stability of the price level” – issues of monetary theory within the Austrian School of economics

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FIRST DRAFT

1. Menger’s theory of money and the idea of neutrality

According to J.G. Koopmans (1933, p. 228) , F.A.Hayek (1929, p. 59) was the first among the economists of the Austrian School who used the term “neutrality” in connexion with money. However, the questions whether the introduction of money changes the outcome of a pure exchange economy, and if so, whether such changes should be avoided or not, have been a major concern already of the founder of the Austrian School Carl Menger, although he does not use the term itself.

In order to pre-empt misunderstandings, I make two prefatory remarks concerning the term “neutrality” in the sense it will be used in this paper.

- If the concept of neutrality uses a frictionless pure exchange economy without money as reference model, this comparison is, of course, purely hypothetical in the sense that an economy of the advanced stage of the 19th or 20th century could never function without money as a general means of exchange. Therefore the reference model can only be understood as a product of imagination.
- In the writings of “Austrian” economists, “neutrality of money” is an analytical concept that is also meant in the sense of a postulate (explicitly or implicitly). For advocates of a mechanical quantity theory of money (e.g. Irving Fisher) “neutrality of money” is an empirical proposition (or an a priori assumption) in the sense that a change in the quantity of money causes a proportional change of prices of all goods, thus leaving the relative prices of goods unaffected (“money as a veil”¹).

Menger’s article “Geld” appeared for the first time in the “*Handwörterbuch der Staatswissenschaften*” in 1892 and was revised twice for the editions following until 1909. In its final version Menger also included it in the second edition of his “Principles” which was published only after his death in 1923. Extensive parts of the 120-page essay (in

¹ According to Boyanovsky (1993) the term “*Geldschleier*” was first used by Böhm-Baerk and later taken over by Irving Fisher.

Hayek's edition)² deal with aspects of monetary theory which were intensely discussed 100 years ago but are considered to be outside the subject of economic theory today. In the first parts Menger carefully elaborates the historical origins of money and the implications of the use of money as a general medium of exchange for the evolution of economy and society. This provides ample opportunity for Menger to demonstrate once again the case of major social institution as "the unintended result, as the unplanned outcome of specifically individual efforts of members of a society"³ - as opposed to institutions which are the product of conscious collective design.

Menger then goes on to analyze and discuss the various functions of money (money as a means of payment, as a store of value, as intermediary of capital transactions, before he turns to money's function as a "measure of value" (sections X and XI)⁴. Menger first criticizes the "ruling doctrine" that prior to any exchange the exchange value is a given quantity inherent in any good, and that this quantity can be measured by the exchange value of money in units of money is untenable. The unit of money is only a measuring rod to express market prices of all goods and to make these prices comparable easily and conveniently. Expressed in terms of prices of goods, the exchange value of money varies in time and in space. The causes of these movements of prices can be sought either on the side of goods or on the side of money.

In this context, Menger introduces a principal distinction between "extrinsic" and "intrinsic value" ("äußerer" and "innerer Wert") of money⁵. The extrinsic exchange value of money is determined by its purchasing power over all other goods. This overall purchasing power ("*allgemeine Kaufkraft des Geldes*", p.77) can be measured by index numbers. Although index numbers "are deficient in many respects, they nonetheless provide a useful basis for practical purposes for answering the question whether goods prices have increased or

² Menger, *Gesammelte Werke*, Vol. IV

³ Menger 1883, p. 155

⁴ In the year of publication of the first version of his article in the *Handwörterbuch der Staatswissenschaften* (1892) Menger also published two articles on the theory of money in English and French. The article in the *Economic Journal* (Menger 1892a) deals with the origin of money mostly in a historical manner and covers the subject of sections I to V of his entry in the *Handwörterbuch*, the article *La monnaie mesure de valeur* (Menger 1892/2005) is largely taken from sections X and XI of the *Handwörterbuch*.

⁵ In introducing this distinction, Menger refers to a remark by Malthus, that "there has been no more fruitful source of error in the very elements of political economy, than the not distinguishing between the power of purchasing generally and the power of purchasing from intrinsic causes; and it is of the highest importance to be fully aware that, practically, when a rise or fall in the value of a commodity is referred to, its power of purchasing arising from extrinsic causes is always excluded." (Malthus 1836, quoted in Menger 1909/1970, p. 83. Therefore, to translate "innerer" and "äußerer Tauschwert" by "intrinsic" and "extrinsic" value appears preferable to the terms "inner" and "outer" exchange value which Gilles Campagnolo uses in his translation of Menger's French article in for HOPE.

decreased.” (ibidem) As regards the “intrinsic value” of money, Menger does not give a static definition of the concept. Instead, he speaks of c h a n g e s of the intrinsic value of money which are caused solely “by influences originating on the side of money” (p. 81), not on the side of the other goods.

An object of exchange whose exchange value remains the same with respect to all other goods would be of utmost importance for everyday economic life (“*das praktische Wirtschaftsleben*”), because it would “eliminate a major part of the uncertainty that prevails in economic life”, and provide a common measuring rod for prices paid in all locations at all times. (Menger 1909/1970, p. 74) Unfortunately, because all prices of goods and the value of money with respect to them are mutually interdependent, there is no such invariable standard, “no object that is traded in our markets that can be exchanged at all times against all others according to an immutable proportion.” (Menger 1892/2005,, p. 258) If, therefore, “absolute stability” of the exchange value of money is theoretically impossible, at least money can be thought of as “a good with relatively great stability of its intrinsic value (Menger 1909/1970, p. 75)”.

Economic agents – consumers as well as producers – have a strong preference for an invariable measuring rod for the exchange value of goods. This misleads them “to disregard movements of the intrinsic exchange value of money itself“(what we would now call “money illusion” – a term not used by Menger) and causes “a considerable lack of accuracy in the economic thinking of the masses” (ibidem, p. 81). To avoid this, it would be necessary to stabilize the intrinsic value of money. To a certain degree, such stabilization is already achieved through an automatic mechanism. Therefore it appears not unfeasible to Menger “to neutralize (“*aufzuheben*”⁶) the influences on prices which ceteris paribus originate from the side of money by deliberately influencing the circulating quantity of money, especially that of paper money”. In this way, a “means of circulation can be established that exhibits a constancy of [intrinsic] value in the desired sense.”(p. 86) For Menger, “neutrality of money” in the sense of constancy of its intrinsic value is a postulate of economic policy derived from theoretical analysis.

⁶ „Neutralize“ is the term which Compagnolo also uses for the translation of the corresponding passage in the French text (p. 258).

Menger then discusses the question whether it could be possible to isolate changes in the intrinsic value of money, i.e. changes originating from the side of money, by identifying all changes in the extrinsic value of money, i.e. such changes that originate from the side of goods. Menger says that even in the unlikely case of parallel movement of all prices of all goods it would not be completely certain to locate the cause of this movement on the side of money. What can be said is only that in the case when many prices change at similar rates, it is likely that the cause for such a movement is on the side of money. Contrariwise, such a conclusion is all the less justified, the greater the differences in price changes are. The matter is further complicated by the fact that in reality changes of the price level are the combined effects of influences from both sides (p. 87f). “To answer the question if, and to what extent, a change of the intrinsic value of money has in fact occurred” would require an exact statistical measurement not only of price changes, but also “of their (statistically measurable) causes.” (p. 91)

In the French article, Menger is confident that “it is theoretically possible to solve this issue.” Its “practical significance – especially as relations between debtors and creditors are concerned – sets it among those issues where there is an utmost emergency and that ask for earnest endeavours.” (Menger 1892/2005, p. 259)

Menger also made it clear that constancy of value is not the automatic result of a currency based on gold or silver. If it is preferable to keep the intrinsic value of money constant in relation to the other goods by appropriately regulating its quantity, then there is an active role for the state: “The state or a group of states may decree the quantity of currency they issue.” (Menger 1892/2005, p. 258) However desirable that may be, Menger was convinced that statistical information and theoretical knowledge for such an ambitious task did not yet exist. More fundamentally, he pointed to the risks of currency manipulation by stating that “the dangers inherent in fluctuations of the prices of precious metals appear smaller than regulation of the exchange value of money by governments or political parties.”⁷

In the final section (XIV., “*Geldbedarf*”, demand for money) of his article Menger deals with the function of money to reduce the uncertainty that prevails in an advanced capitalist economy and its consequences for the quantity theory.⁸

⁷ Ibidem, p. 86f

⁸ On Menger’s “theory of money under uncertainty” see Streissler 1973.

“Those who try to define the monetary requirements of an economy either by the value of the turn-over of commodities in a certain period, or by the maximum amount of payments which have to be met (simultaneously!) within any one period, or finally by the ‘velocity’ of circulation of money, misjudge the true determinants of the monetary requirements of an economy. They neglect that the amount of money which is used in actual payments constitutes only a part, and indeed a relatively small part, of the cash necessary to a people and that another part is held ... in the form of various reserves as a security against uncertain payments ... The cash reserves in the possession of the central bank, of the treasuries of the state and local agencies, of the savings and loan associations, of the banks, and especially of entrepreneurs and private individuals – meant only for uncertain needs, for rare and unusual adversities, in part even against extreme circumstances – in spite of the fact that they are normally not used for payments, still form as much a part of the monetary requirements of an economy as the small amounts of small change in the possession of households which change hands several times a day.” (Menger 1909/1970, p. 109f)⁹

In Menger’s view, changes in the level of economic activity are not the result of decreasing velocity of circulation of money, but of decisions of economic agents to use a smaller part of their money reserves for payments (p. 111). The more fully developed are the financial techniques of payment and credit and the banking business, the higher is the elasticity of the financial system to respond to changing needs for means of payment and for financial reserves. Hence, Menger welcomes a gradual emancipation of the monetary system from the tight fetters of its metal base.

At the occasion of the currency reform of the Austro-Hungarian monarchy of 1892 by which it adopted the gold standard for the newly introduced Crown, Menger served as one of the 35 members of an enquete commission established by the Austrian *Reichsrat*¹⁰. Menger’s testimony before the commission contains an important message for the national bank that was derived from his theoretical considerations. He emphasized that the national bank must be ready to intervene in order to smoothen the effects of inward and outward flows of money. “The people cannot (be expected to) take the necessary precautions to equalize the balance of payments in international money, i.e. in gold, if the need emerges. The Bank must be the precaution for the people. Under present conditions it has the great task to settle the international balance in circumstances where the (private) economy could achieve this only by accepting great sacrifices.”¹¹

⁹Streissler (1973) shows that this part of Menger’s theory of money “anticipated most of Keynes’ ideas, ... long before Keynes, but much more decisively and radically. Furthermore, hardly an author can be found ... who is so much the exact antipode in every part of that economist’s theoretical vision as Carl Menger.” (p. 165)

¹⁰ For a more detailed account of Menger’s interventions into the Austrian debate on currency reform see Chaloupek 2003. In his testimony, Menger strongly supported the adoption of the gold standard by Austria-Hungary. However, he did not imply by this that the gold standard could be considered a final stage or optimum system. (Menger 1909/1970, footnote on p. 86f)

¹¹ Menger 1892c, p. 250

Menger's testimony also suggests that his plea for stability of the value of money reflects concerns about its depreciation as well as its appreciation. Undesirable effects on overall economic activity could be expected not only from a decrease of the value of money, but also from an increase. "Appreciated money is no less an anomaly of the national economy, in some respects even more pernicious, than depreciated money."¹² And: "What pernicious consequences for our commerce and for the whole economy money would necessarily have if its purchasing power would rise from year to year and from decade to decade and change all obligatory relations accordingly, hardly needs to be called to special attention."¹³ Hence, money serves its function best if it is protected against an increase as well as a decrease of its value¹⁴. At this point, the question arises whether Menger was aware of the possible contradiction between price stability neutrality of money in the sense of constancy of its intrinsic value.

2. Friedrich Wieser on the value of money

Friedrich Wieser's understanding of the "value of money" was different from Menger's. From the standpoint of subjective value theory, Wieser places great emphasis on the necessity "to define the value of money ... as the significance attaching to a unit of money because of its relation to a unit of utility." (Wieser 1914/1927, p. 263)¹⁵ Ultimately, value of money in Wieser's terminology is its use value which is dependent on the utility of the goods which it can purchase. He applied this concept ("*volkswirtschaftlich-subjektiver Tauschwert*", subjective exchange value at the aggregate level) to the economy as a whole, as distinguished from the "aggregate objective exchange value" ("*volkswirtschaftlich-objektiver Tauschwert*") which is the purchasing power of a unit of money vis á vis the general price level ("*allgemeiner Preisstand*"). (Wieser 1926, p. 698) A variation of the price level does not necessarily imply a change in the value of money in this sense of subjective exchange value. If prices rise as a consequence of increasing scarcity of goods, the relation of the unit of money to the unit of utility changes. "When more units of money have to be surrendered to secure the same degree of utility, the value of money has declined, and vice versa. When a general rise of prices has the effect that the provisioning of all households has to be curtailed,

¹² Menger 1892b, p. 206

¹³ Menger 1892a, p.156; see also Menger 1892c, p. 257

¹⁴ Menger 1892b, p. 207

¹⁵ See also Wieser 1909, p. 207ff.

or when falling prices enable it to be expanded, the exchange value of all commodities has risen or fallen, while that of money need not be affected at all.” (Wieser 1914/1927, p. 263)

Wieser is critical with respect to the common sense understanding that dominates popular perceptions which identifies changes in the value of money with changes in the price level. In Wieser’s view, the price level expresses only the relation between the value of money and that of goods, not the value of money itself. The “scientific method of ascertaining the value of money” must compare “the sums of money that are necessary for a certain provision of natural values with the money income.” (ibidem, p. 292) Thus, Wieser argued against drawing any direct conclusion from changes in the price level to the standard of living or economic well being. His intention was to define the value of money in such a way that its changes indicate changes in the standard of living. What is behind Wieser’s concept of value of money is the concept of real income per person¹⁶. In order to find an index for the use value of money he had to refer to an additional magnitude, i.e. income. By this Wieser implicitly took into account the criticism put forward by Schumpeter (1918, p. 49) that marginal utility of money was not sufficient to explain changes in its purchasing power.

Wieser took over from Menger the distinction between changes in the price level which originate on the side of goods, and such changes which originate on the side of money. As far as changes in the subjective value of money are concerned, “it is not the origin of such changes, that matters, but their effects on the level of provisioning” (Wieser 1926, p. 697), i.e. the standard of living. The distinction is mainly relevant for analyzing changes the objective value of money.

Although Wieser mostly avoids explicit policy recommendations, he discusses several cases under the aspect of appropriate monetary policies. Generally, he pleads for non-interference when he writes that “under normal conditions the state is not called upon to label the standard money with a nominal value which is intended to fix the value and to affect the exchange value of money.” (Wieser 1914/1927, p. 279)

Depreciation of money due to an increase of the quantity of money as the most obvious case of a change in the value of money can be caused by an increase of the available amount of

¹⁶ Wieser made detailed proposals for measurement of real wages and real incomes of other groups of the population in his contribution to the Vienna conference of the Verein für Sozialpolitik in 1909 (1909b, p. 248ff)

standard money (metal or paper), or by the multiplication of commercial paper of banknotes and checks through the modern credit system. In principle, the credit system is closely tied to the volume of production and trade of goods and, hence, “credit money fulfils the spirit of the institution of money as enlightened statesmanship would determine it.” (p. 281) Writing in 1914, Wieser nonetheless noted that the possibilities of credit were increasingly abused by new enterprises with extensive improvements in production which leads to the overextension of credit. This causes price increase and a decrease in the value of money, but only until overproduction ends in a crisis. The rise of prices is followed by a drop “until finally the equilibrium of supply and demand is re-established.” (p. 282) Eventually the credit system would have only transitory effects on the price level and on value of money.

In comparison, the effects of an increase of standard money are permanent and also more detrimental. Because the value of money becomes unstable, expectations based on constancy of value remain unfulfilled, “numerous economies are disorganized and more than one is ruined. The groups who suffer most severely under such conditions are those drawing fixed incomes”. (ibid.) In his essay of 1926 Wieser emphasized that depreciation of money proceeds much faster through inflation of paper money than through inflation of metal, and there is nothing to bring that process to a halt as long as the state must continue to issue new notes for lack of other revenues (Wieser 1927, p. 704).

Of the cases of price changes and changes in money value on the side of goods Wieser’s discussion of appreciation of money is most interesting. If prices are forced down by an increase of the volume of production of goods, this “would thwart the anticipation of every businessman, would depress all sales prices and would decrease or wipe out all expected profits.” (Wieser 1914/1927, p. 285) However, the elasticity of the credit system would be sufficient to prevent massive overproduction and a severe crisis. And yet, the self adjusting mechanisms may not be sufficient to prevent “the retardation of production, perhaps its premature curtailment.” “During such periods, the increase of money which permits all producible value to be actually turned out, results in the beneficial effect which some authors mistakenly ascribe to it under all circumstances.” In this case, Wieser recommends a monetary policy which results in a decrease in the (subjective) value of money in Wieser’s sense, since the marginal utility of the additional goods bought with the additional unit of money income is smaller.

In his last essay which was published only after his death Wieser abandoned his discretion in matters of economic policy and discusses the question of what would be an adequate monetary system under post-war conditions. He considered stability of the currency system in the international as well as in the national context of utmost importance. In his view, the most serious threat for stability came from the increasing abundance of gold production, but he also pointed to the advantage of freeing the economy from a possible exhaustion of gold mines. (Wieser 1926, p. 716). He praised Keynes for his insight that he that raised the question whether the gold standard could be replaced by a system that ensures intervalutary stability at lesser costs. (ibidem) For an “isolated state” such a system could be based on irredeemable paper money issued by the state which “strictly forsakes any inflation and limits the issuance of money to the amount that satisfies the requirements of the national economy.” (ibidem; there is a striking similarity to Menger’s above-quoted wording)¹⁷

Wieser emphasizes that the value of money (in his sense) is determined in the markets for consumer goods, whereas in the sphere of business the monetary calculus follows a different logic (1909a, p.214). The value of money is determined by that part of it which comes from current income and is used for consumption. By focussing on the flow of income rather than on an existing stock of money Wieser is one of the first economists to follow an “income approach” in the theory of money. He points to the fact that only part of the existing stock of money is used for current consumption. “[T]hose amounts of money which are devoted to the formation of productive capital would have to be deducted, while capital laid back to be borrowed by for consumption purposes would have to be included”. (1909a, p.215) But Wieser did not investigate further consequences of such an approach. Unlike Menger, Wieser does not consider the effects of changes in money reserves on the money supply and further on the value of money as he understood it. In a resignatory mood, he complained that “the prevailing theory never succeeded in assembling the elements (of auxiliary movements) in the one concept of money income.” (1914/1927, p. 265)

3. Joseph Schumpeter’s contributions to the theory of money

Schumpeter’s first contribution to the theory of money is contained in chapter 5 of his *Theory of Economic Development* (originally published in 1911), where he identifies three different

¹⁷ However, at the level of the international economy, no mechanism analogous to the gold standard is available that would correct imbalances in trade and payments between states. Therefore, Wieser concludes, “world paper money is a utopia. Under existing historical circumstances gold must remain the basis of world money.” (ibidem, p. 717)

sources of finance for the implementation of new combinations of means of production: current profits, current savings, unemployed money reserves and balances in the banks which can be made available to the new entrepreneurs through the modern credit system. During phases of low economic activity the interest rate for loans would tend towards zero as a consequence of an increasing volume of unemployed money holdings, if that process were not interrupted by the development of new possibilities for the use of these funds. Schumpeter assigns an important role to the elasticity of the credit system that keeps the interest rate at low levels for a certain period and thus facilitates the implementation of technical progress in the production system that leads to a cumulative upward movement of the economy (Schumpeter 1934, p. 300ff). The crisis that unfolds after a turning point has been reached is the inevitable negative consequence of the boom. The cyclical movement leads to more or less violent fluctuations of the value of money and of the price level. But Schumpeter leaves no doubt that this is well worth to be paid as price for economic development through which standards of living are raised in the long run and social progress can be achieved.

In his essay of 1918 *“Das Sozialprodukt und die Rechenpfennige”* (The social product and the unit of account) Schumpeter applied the circular flow-analysis of the economy upon which he built his Theory of Economic Development to the analysis of monetary phenomena. Both, Menger and Wieser had taken a critical stance towards any simple version of the quantity theory of money. Although they did not deny its basic explanatory merits, they refused to ascribe any explanatory power to the concept of velocity of turnover “*v*”, which was strongly influenced by the decisions of businesses and households about the adequacy of money reserves necessary for current and future transactions (Menger 1909, p. 109). According to T.W. Hutchison, Schumpeter’s essay deserves credit as first systematic investigation into a line of argument that was opened by Wieser with his reference on income for a theory of the value of money¹⁸.

Schumpeter starts by stating that, contrary to the quantity theory, an analysis of the relationship between money and goods has to focus on the continuous circular flow of productive expenditure and consumptive use of income as the fundamental economic process (Schumpeter 1918, p. 33). In an economy with stationary equilibrium, “the sum of the prices of all consumption goods must be equal to the sum of the prices of all production goods, and

¹⁸ See Hutchison 1953, pp. 338ff. This is one of the few works that pay attention to this essay of Schumpeter’s, which is mostly neglected by the monographies dealing with Schumpeter’s life and work

both must be equal to the total of all money incomes.” (p. 36f) in the context of the circular flow money is essentially a claim on goods. As regards the relationship between money and goods, what is relevant is not the relationship between prices and the quantity of money, but between prices and incomes. (p. 49) Changes of the price level can be measured by index numbers. Such changes can originate from the side of goods (in times of war there is a general decline of non-military production), or from the side of money. Schumpeter identifies the economic aggregate that is influenced only from the side of money “as the sum of the products of prices and quantities of goods used for consumption within an economic period, which is ... identical with the total of incomes.” (p. 56)

In the context of the circular flow, Schumpeter understands money essentially as a “claim on goods” (“*Anweisungstheorie*”, pp. 37ff). In this sense everything which serves as instrument to represent such claims can be money (pp. 57ff). Apart from coins made of precious metal and banknotes Schumpeter mentions balances on bank accounts, clearing balances, effectively circulating bills of exchange, any commodity which effectively serves as means of payment¹⁹.

In pursuance of the income approach, it is necessary to identify that part of the total quantity of money which is effectively circulating and which can therefore be seen as counterpart of the flow of consumption goods through expenditure out of income. Non-circulating parts of the stock of money such as hoards, money of a certain kind that is used for the emission of other forms, reserves designed for expected transactions and cash reserves of banks and the private sector must be excluded as well as those sums of money which circulate on asset markets. (pp. 67f) The velocity of circulation, for which Schumpeter prefers the term “efficiency of money” (p. 73), is an average of the different velocities of different kinds of money. A quantitative measurement is a task that faces tremendous difficulties. (p. 75)

On this basis Schumpeter formulates what he calls “the fundamental equation of the theory of money:

$$E = MU = p_1 m_1 + p_2 m_2 + \dots + p_n m_n$$

where E is the sum of all money incomes, M the quantity of money in circulation, U the efficiency, and m and p the quantities and prices of particular goods. With the aid of this

¹⁹ The examples mentioned by Schumpeter (sugar, chocolate, coffee, tobacco) reflect the experience of everyday life in the last years of the World War.

equation it is possible to identify the particular influences originating from either side – at least theoretically.

Schumpeter uses this monetary framework to demonstrate the monetary aspects of his “Theory of economic development”, and also of a monetary over-investment theory of the business cycles proposed by Wicksell and Irving Fisher, emphasizing at the same time that this theory “locates the explanation of crisis in the wrong cause” (p. 95). Only in the last parts of the essay Schumpeter turns to the most urgent problem of the time when he wrote it, the increase of the price level. Against the background of accelerating inflation, Schumpeter’s conclusion that the sum of all products $\sum p_i$ “reacts to all monetary causes” (p. 116) sounds rather trivial, whereas it has no practical relevance when he insists that inflation may also be caused by an increase of gold production or from the normal functioning of the banking system. What deserves admiration is his foresight that “the emission of paper money does not exhibit its full effect in times of war and revolution because the circulation of bank money declines in such moments ... Inflation in its full intensity is to be expected only with the return of normal circumstances” (p. 96) – this prediction was proved correct in a drastic sense by the hyperinflation by which Austria²⁰ was afflicted in 1921/22. From a theoretical point of view it remains important “to separate the impact of monetary influences on the price level from the influences from the commodity side by statistical analysis ... For that purpose an improvement of income statistics is the proper way.” (p. 116) The sum of incomes can be kept constant only if prices are allowed to change exclusively on the side of commodities - for Schumpeter “it is more than doubtful whether that would be desirable from all points of view, from which this matter can be looked at.” (p. 117)

It is consistent with his Theory of Economic Development when Schumpeter (1925, 1927) defended the return to the gold standard against Keynes’ alternative program for a monetary system put forward in his “Tract on Monetary Reform” of 1925 that aimed at constancy of the price level and stabilization of the business cycle. Apart from ideological objections, Schumpeter could not accept that central bank policy should ensure price stability because this would impede the functioning of economic development and thus also impair progress in the long run. With all its deficiencies, a monetary system based on the gold standard provided an automatic mechanism with the necessary flexibility that allow for price movements and other fluctuations in the process of development. Moreover, Schumpeter had a clear

²⁰ Other succession states of the Habsburg monarchy as well, especially Hungary.

preference for automatic monetary mechanisms over a discretionary, managed currency policy.

4. Ludwig Mises' theory of money

The first edition of Ludwig Mises' book *Theorie des Geldes und der Umlaufsmittel* was published in 1912. According to the author's own testimony, important changes in substance were made concerning the necessary distinction between statics and dynamics in the analysis of the role of money in the second edition published 1924. (Mises 1934/1980, p. 35) Mises' reflections and recommendations on money and economic policy now could also take into consideration the experience during and after World War I. Therefore, it appears appropriate to refer to the second edition. Mises' declared intention is to present a catallactic theory of value as part of a general theory of exchange along the lines of the subjective theory of value of Menger and Wieser. But Mises takes a critical stance with respect to certain elements of Menger's and Wieser's theories of money.

Mises appreciates Wieser's intention to explain the value of money on the basis of utility theory. But he rejects Wieser's approach "to explain variations in the objective exchange value of money ... by reference to the relationship that exists in an economic community between money income and real income." (ibidem, p. 139) Instead, Mises proposes to derive the value of money by going back to the moment of emergence of precious metal as money in which the alternative use value of the metal was relevant for valuation ("regression theorem")²¹. Mises also objected to consider consumers as an aggregate emphasizing that any explanation had to start from the individual action. The same kind of critique hits the mechanical quantity theory of money with its focus on movements of aggregates rather than on individuals, and therefore fails to identify the differential impact of an increase of the money supply (p. 160f).

With respect to changes of the exchange value of money, Mises follows Wieser in taking over from Menger the distinction between causes on the side of goods and on the side of money (p. 145f), while he distances himself cautiously from Menger's terminology of "intrinsic" and "extrinsic" exchange value²². Mises emphasizes that the factors that determine prices never

²¹ Mises solution for the problem drew rather harsh critics – see Pallas 2005, p. 61. Pallas quotes Hicks who ridiculed Mises for his conclusion which implied "that money is a ghost of gold." (Hicks 1935/1982, p. 48)

²² Mises 1924, p. 104. In the English edition, this paragraph is only incompletely included in a footnote (p. 146).

exert their influence only on one side of the exchange that takes place, those influences which have merely modify existing prices may be effective on only one side. (Mises 1924, p. 104)²³.

Contrary to Menger, Wieser and Schumpeter, Mises rejects index numbers as a tool for measuring movements of the price level from the viewpoint of theory, because through the formation of statistical aggregates economic analysis loses sight of the infinite variety of individual actions that are the ultimate causes of all price movements. (Mises 1934/1980, p. 220f) In the face of the practice of automatic price adjustment of wages during the period of war time and post war price increases Mises cannot strictly uphold this position and admits that “in spite of their fundamental shortcomings and the inexactness of the methods by which [index numbers] are actually determined, [they] perform useful workaday services for politicians.” (ibidem, p. 222)

In the same vein, Mises is critical of the income approach to the problem of determining changes in the value of money, as pursued by Wieser, Irving Fisher and Schumpeter. If Schumpeter starts “not from the quantity of money, but from the sum of money incomes, which he compares with the total prices of all consumption goods”, there may be “some justification of such a comparison if money had no other use than to purchase consumption goods.” (p. 513) Out of this logic, Schumpeter separates that part of the money supply that has an immediate connection with money incomes and purchases of consumption goods from the rest which contains hoards, cash reserves and transaction balances held for the purchase of assets. In Mises’s view, this is not only impossible statistically, as Schumpeter himself admits, but also constitutes an arbitrary separation which neglects that money as a total simultaneously serves as means of payment and as store of value.

Mises accepts a “soft” version of the quantity theory that an increase of the supply of money without a parallel increase of money demand will lead to an increase of prices. But what is essential in this context is that this increase will neither be uniform nor simultaneous. Relative prices of goods are bound to change as a consequence of an increase of money supply. (p. 160ff)²⁴ Wieser (1926) had already suggested that, depending on the particular circumstances, not all prices of all goods and not all incomes are affected simultaneously, and

²³ In my view, the translation of this passage in the English edition (p. 146) does not convey the meaning of the sentence as it comes out in the German original.

²⁴ Hayek later called the effect of a change in money supply on the structure of prices “Cantillon-effect” (Hagemann/Trautwein 1998).

that it takes time until the original impulse spreads through the whole economy. In Mises's view, the change in the structure of prices has important consequences. Prices of production goods are affected earlier than consumption goods. This is perceived as an indication for a profitable lengthening of the production period. The demand for credit rises and still more money is injected into the economy. Thus, the increase of the money supply has permanent consequences by initiating a cyclical movement of overall economic activity from boom to bust.

At this point Mises' theory of money interlocks with Wicksell's explanation of the business cycle based on a divergence between the "natural" and the actual rate at which credit can be obtained from banks. Wicksell's concept of "neutral" refers to the money rate of interest. In Wicksell's terminology the natural rate of interest is defined as the rate of interest at which the demand for loans equals the volume of savings, and where money is "neutral" towards prices, i.e. where the price level neither rises nor falls. (Wicksell 1893, p. 93) Hence, Wicksell's concept of neutrality of money implies constancy of the price level²⁵.

Whereas for Wicksell a divergence between the natural and the actual interest rate originates from an increase in the "real interest rate", i. e. the rate of return on investment in productive capacities, Mises constructs a monetary theory of the business cycle in which the divergence is caused by an "artificial" reduction of the actual rate below the natural rate. Such a reduction is within the power of the modern banking system to increase the money supply. As regards the reason for the artificial reduction of interest, Mises' answers change. In the first edition of his book, discretionary action by banks is only one of the causes for the divergence. (Pallas 2005, p. 91) In the second edition Mises puts the blame on government intervention. Governments have gradually relaxed the restrictions that had been originally imposed on banks' issuance of fiduciary media. "Endeavours have been made by means of credit policy to keep the rate of interest low: 'cheap money' (that is, low interest) and 'reasonable' (that is, high) prices have been aimed at. Since the beginning of the twentieth century these endeavours have noticeably gained in strength". (Mises 1924/1934, p. 405)

As regards policy consequences, Mises concludes that the ideal to keep the intrinsic value of money constant is unrealistic because it would require permanent intervention based on information which can never be provided. Apart from that, Mises thinks that such

²⁵ At least for a stationary economy – see next section.

intervention, “even if it were only to guarantee the stability of the value [of money]”, would inevitably bring with it “the danger of mistakes and excesses”. (ibidem, p.269) Only firm adherence to a metallic money-system can ensure “the freedom of the value of money from state influence. This principal advantage outweighs all disadvantages which the reliance on a metal base cannot avoid. (p. 270) In addition, Mises also calls for a regulatory framework for the banking system which applies tight fetters to the money creating power of banks. (p. 406ff)

5. Hayek’s *Geldtheorie und Konjunkturtheorie* and the concept of neutrality of money

In Mises’ Theory of Money and Credit a shift in emphasis takes place from the explanation of the value of money and the determinants of changes in the value of money, which were the dominant focus of Menger’s and Wieser’s contributions to the theory of money, to the explanation of the business cycle with its recurrent sequence of boom and crisis, whose social and political consequences became a challenge for capitalism as an economic system. Hayek’s book *Geldtheorie und Konjunkturtheorie*, published in 1929, i.e. five years after the second edition of Mises’ book, makes this change of emphasis almost complete. In his book, Hayek shows little interest in issues of value theory. He calls for an “emancipation of the theory of money from its preoccupation with the value of money”. (Hayek 1929, p. 71) From an isolated analysis of money monetary theory would have to develop into “a theory of such phenomena which mark the difference of a money economy from the natural equilibrium relations which always underlie a ‘pure economy’.” (ibidem, p.53)

In 1924, five years before his book *Geldtheorie und Konjunkturtheorie* appeared in print, Hayek had published two articles on discount policy and commodity prices in the Austrian bi-weekly magazine “*Der Österreichische Volkswirt*”. The occasion for Hayek’s direct intervention into an international debate on monetary policy was a recommendation of the financial committee of the League of Nations to the Austrian national bank²⁶ to preserve stability of the Crown²⁷ not only with respect to gold but also with respect to the price level. The emphasis on stabilization of the price level reflected a change in the orientation of monetary policy that had taken place in many countries after the world war. Hayek gives a summary of the parallel debate among economists about the role of price stability in economic policy and currency policy in the USA, in Great Britain and in the Netherlands.

²⁶ In fact, these recommendations were obligatory, because Austria was financially dependent on relief credit from the League.

²⁷ The value of the Crown, which was succeeded by *Schilling* in 1925, had been stabilized only two years before.

He reports that there was a consensus with respect to the effectiveness of discount rate manipulations with respect to price movements, but there was disagreement as to when and to what extent other indicators had also to be taken into consideration. According to one objection brought forward against an exclusive orientation at price level movements price changes originating from the side of goods should not be counteracted by changes of the discount rate. Hayek mentions another objection which warned against a possible abuse of the discount policy which could lead to rising prices. To take other indicators such as industrial production into consideration would require precise and timely statistical information which were not available in many countries (Hayek 1924a, p. 23).

Hayek does not reject the proposals of Keynes' Tract on Monetary Reform, but he expresses some scepticism on practical and on theoretical grounds. With respect to Austria he argues that, due to the vulnerability of the economy on its external side, there could be no doubt that the stabilization of the exchange rate should be given priority over stability of the price level (Hayek 1924b, p. 41).

The concept of neutral money still occupies an important place in Hayek's early theoretical writings. In his article of 1928 Hayek discussed the question of neutrality of money in the context of an intertemporal equilibrium framework. "[I]f an intertemporal equilibrium can be realized in a monetary economy rendering the same real characteristics as frictionless barter, then money (or the monetary system in this economy) is neutral." (Klausinger 1988, p. 173)²⁸

If in Wicksell's theory stability of the price level goes hand in hand with a coincidence of the natural and the money rate of interest, Hayek argues that this implies neutrality of money in the sense of non-affection of the prices of goods only in the case of a stationary economy. In a growing economy, stability of the price level necessitates an increase of the money supply. "An interest rate for an expanding economy which allows the creation of new money which is necessary to keep the price level stable will be lower than that interest rate at which just as much capital is available for credit as is saved at the same time. As a consequence, the economy would move away from equilibrium." (Hayek 1929, p. 60) Hence, the condition of neutrality is no more fulfilled.

²⁸ In Hayek's still unpublished manuscript "*Geldtheoretische Untersuchungen*" sustained deviations from the equilibrium of static theory are deemed the rule even before the main culprit of Hayek's monetary theory of the cycle, credit creation or destruction enters the scene." (Klausinger 2010)

Hayek considers Mises' monetary theory of the business cycle a significant advancement of economic theory, but he disagrees with some of its essential premises. In Hayek's view, in a stationary economy the initial disturbance from which a cycle starts does not necessarily come from the monetary sphere, and in most cases it will not. What is essential in this context is that there is a change in the "data" (in modern words: a shock) to which the economy does not adapt immediately. But it is mostly attributable to the functioning of the monetary system (credit expansion) that the change is followed by an upswing and later by a downward movement. (p. 106) Hayek thinks it necessary to deprive the explanation of movements of the general price level of its central position in the theory of money in order to reconcile the non-monetary and the monetary approach in business cycle theory, and this would help to clear the sight on the effects of money on processes of the real economy. (ibidem, p. 72) As a further consequence, Hayek finds it unjustified "to put the blame for fluctuations in economic activity on banks." (p. 110f) The only means to eliminate cyclical fluctuations would require to keep the volume of bank credit strictly unchanged – a practical impossibility. But even in case that such a policy could be implemented it would be undesirable. As a consequence, the rate of interest would be permanently increased, and

"technical progress would slow down because the exploitation and 'implementation of new combinations' would become more difficult, and hence a psychological incentive for development would disappear whose significance cannot be fully understood by purely economic reasoning. One does not go too far with the contention that, given prevailing standards of understanding on the part of the general public and of science, such a policy would neither be possible to execute in practice, nor theoretically justifiable." (p. 112)

According to J.G.Koopmans (p. ..), the main contributions to the theory of money before World War I came from Austrian economist, whereas this field of research had been rather neglected in Great Britain. By the middle of the 1920's, the theatre of monetary theory debates had migrated across the Channel and across the Atlantic. Further contributions by Austrian economists were made in that context.

6. Résumé

The original motive which underlay the Austrian economists' endeavours in the theory of money was to find an explanation for the value of money based on their subjective theory of value. In this respect, they did not succeed, unless one finds the solution proposed by Wieser

satisfactory – which the authors dealt with in this paper did not. The concept of neutrality of money, implicit in Menger's postulate of constancy of the intrinsic value of money, appears as a by-product of this search.

Menger himself was confident, but not certain that in some not too distant future the intrinsic value of money (more precisely: its changes) could be observed empirically and stabilized “by deliberately influencing the circulating quantity of money”. Thereby, the influences on prices which *ceteris paribus* originate from the side of money could be neutralized (“*aufheben*”). For Wieser value of money was essentially subjective use value. Yet he did not see any desirability to keep that value constant. For analytical purposes, Wieser accepted Menger's distinction between extrinsic and intrinsic value, emphasizing at the same time, that what matters is not the origin of changes of money's value, but their effects on the level of provisioning. Mises seems to have abided by the constancy of the intrinsic value as an ideal. However, he considered it definitely as impossible to observe its changes. Moreover, he was sure that the power of state intervention which is necessary to ensure constancy would be abused, and therefore he did not embrace neutrality as a policy goal. Hayek dismissed it both for theoretical and practical reasons. In a growing economy, a declining price level would be the consequence of constancy of intrinsic value, which would impair long run development.

Stability of the price level was discussed by Austrian economists as a matter of empirical observation and as a possible policy goal. Willingness to accept index numbers for measurement of movements of the price level presupposes at least a modest degree of willingness to think in aggregate, i.e. macro-economic terms. Menger's ambiguous attitude towards index numbers may be due to his unease with aggregate magnitudes, which, however he could not entirely do without. Wieser had no problem to combine an individualistic perspective with that of the national economy. His preference with respect to policy goals was undoubtedly on the side of price stability. Eventually he came to support Keynes' proposals for a manipulated currency system based on the goal of stability of the price level. From a strictly individualistic perspective Mises rejected index numbers on principal grounds, and also price stability as a policy goal because of its interventionist consequences. With his disdain to enter the theoretical debate about money's value, Schumpeter foreshadows the future development of monetary theory. From the viewpoint of his Theory of Economic Development stabilization of the price level was as unacceptable as neutrality of money. Hayek was sceptical towards price stability, although not principally against it.

After the experience of hyperinflation following World War I it was obvious that the threat of rising prices (“depreciation” in contemporary language) was by far more serious than appreciation. On the opposite side, Menger had cautioned against possible negative consequences of appreciation after the currency reform 1892. Wieser generally denied any beneficial effects of a policy which permits prices to rise. At the same time, he warned that in a growing economy a tight money supply would constitute an obstacle to full use of economic potential. In that case policy should aim at preventing appreciation and, as a consequence, a decline in the marginal use value of money should be accepted. Mises comparatively tolerant attitude towards appreciation can be attributed to his rejection of any interference into the automatic functioning of a metallic currency system.

With his division of the quantity of money into a part used in the circular flow of the economy, and another part used for reserves and for capital transactions, Menger prepared the ground for the income approach to the theory of money, but he did not further pursue this line of thought. It is consistent with Wieser’s openness towards thinking in terms of aggregates that he made the first step forward on this line of argument. Schumpeter provided an elaborate conceptual framework, while he also came to realize that requirements for empirical observation were hopeless. Mises’ attitude to this approach appears rather negative, at least on practical grounds.

As regards the design of the monetary regime, Menger’s position appears highly ambivalent, if not self-contradictory. From the viewpoint of his concept of neutrality he advocated permanent interventions to ensure a constant intrinsic value of money. He even advocated active co-operation among states which commit themselves to that goal. But at the same time he pointed to the risks of currency manipulation by stating that “the dangers inherent in fluctuations of the prices of precious metals appear smaller than regulation of the exchange value of money by governments or political parties.” Wieser generally had fewer reservations against interventionist policies, and could thus agree with Keynes’ “constructivist” proposals for an artificial monetary system. At first sight, it appears as surprise that Schumpeter, with his pragmatic attitude towards policy issues, positions himself on the side of Mises when he defends the gold standard against Keynes manipulated currency system. However, Schumpeter’s main argument in favour of the gold standard, that it had more in-built flexibility to permit some degree of fluctuation of the price level, is just the opposite of that of

Mises. Mises puts the gold standard in an elevated position, despite its failure to ensure neutrality of money which is unachievable in any real monetary regime. Its character of an automatic mechanism is the most reliable guarantee against abusive state interventions, and therefore outweighs all possible shortcomings.

In Mises' view, bankers, or the banking system, are the true villains of the monetary system, even in system based gold. He suggests that the disturbing influence of the modern credit system has to be significantly reduced by applying tight fetters. This position is unique, because Menger, Wieser and Schumpeter ascribe a number of beneficial effects to the elasticity of credit that is introduced into the economy by the banking system. In his book of 1929 Hayek supported this view with the Schumpeterian argument that, in the absence of the credit system, "the rate of interest would be permanently increased ... and technical progress would slow down because the exploitation and 'implementation of new combinations' would become more difficult."

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