

## Neutral Money Reconsidered \*

The concept of neutral money occupies a notable place in monetary theory, from neoclassical literature to the present. Considerable analytical effort has been devoted to establishing and elaborating the notion that, under particular conditions, the role of money is unimportant or superficial. This paper is directed to the dual task of reconsidering (a) the meaning of the neutrality of money and (b) the nature of the conditions that make for such neutrality.

Accordingly, the first section of this paper focuses on Knut Wicksell's pathbreaking formulation of the neutrality of the interest rate in a monetary economy. The second section considers subsequent expositions of the neutrality of money with special reference to their recent analysis by Friedrich A. Lutz. The third section summarizes the results.

In general, we find that the neutrality of money is conceptually contradictory, and that the specification of conditions under which money would be neutral is inherently misleading. Thus, we conclude that monetary theory will be aided by dispensing with the notion of neutral money in the future.

### I. Wicksell's Seminal Formulation

According both to Friedrich A. Hayek and to Joseph A. Schumpeter, the term "neutral money" was apparently first used by Wicksell.<sup>1</sup> Actually, Wicksell did not specifically refer either to "neutral money" or to the "neutrality of money", but rather to a "neutral rate of interest". Thus, Wicksell stated that, "There is a certain rate of interest on loans which is neutral in respect

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<sup>1</sup> HAYEK, 1935, p. 129.

to commodity prices, and tends neither to raise nor to lower them. This is necessarily the same as the rate of interest which would be determined by supply and demand if no use were made of money and all lending were effected in the form of real capital goods. It comes to much the same thing to describe it as the current value of the *natural rate of interest on capital*?<sup>2</sup>

Hence, to Wicksell the neutral rate of interest is that rate which would obtain in a barter economy. His analysis of determination of the absolute price level involves a comparison of the money rate of interest with the natural rate of interest. The money rate is neutral in respect to the absolute price level when it is equal to the rate of interest *in natura*, i. e., in a barter economy.

Various writers have pointed to fundamental difficulties raised by Wicksell's concept of a "natural rate of interest".<sup>3</sup> Indeed, Wicksell himself subsequently expressed some dissatisfaction with this concept.<sup>4</sup> Suffice it to point out that it appears fallacious to posit *equivalence* between a particular money economy and a particular barter economy. Consider the attempt to identify the neutral rate of interest for a particular money economy and a neutral rate of interest for a particular barter economy, even apart from the problem of the term structure of interest rates.<sup>5</sup> Should the money economy be compared with the barter economy that would follow the abolition of money in the short run or in the long run?

If the comparison is a *short-run* one, the immediate aftermath of the shift from a money to a barter economy would be a reversal of the division of labor and specialization of function attributable to the use of money. In other words, the economy would move to an integration of labor and a generalization of function. Such a shift constitutes a lapse from the level and composition of economic activity that the immediate aftermath of the collapse of a monetary system in the wake of a hyperinflation may resemble.

Alternatively, suppose that a *long-term* comparison is to be made between a particular money economy and the barter economy that, after the abolition of money, would eventually evolve. Even after full adaptation to the practice of barter, the indefinite pro-

<sup>2</sup> WICKSELL, 1936, p. 102. Italics in original.

<sup>3</sup> See, for example, KEYNES, 1936, p. 143

<sup>4</sup> See UHR, 1960, pp. 226-227.

<sup>5</sup> Wicksell indicates that his concern in the money economy is not with the discount rate but rather with the long-term interest rate. WICKSELL, 1936, pp. 92-93.

traction of the absence of money would constitute a lasting economic retrogression from the pre-existing money economy.

Thus, whether posited for the short run or the long run, Wicksell's original notion of a neutral interest rate is untenable. Identification of the neutral rate necessitates the omission of fundamentally important qualitative differences between a money and a barter economy.<sup>6</sup>

Subsequent exponents of neutral money have attempted to overcome the Wicksellian snare of the neutral interest rate. We now turn to such expositions in light of a recent critique of several of them by Lutz.<sup>7</sup>

## II. Later Formulations

Lutz establishes a dichotomy between the earlier and the more recent expositors of neutral money. He regards as the dividing line between the two, Keynes's *General Theory*. For Keynes's main concern was the level of aggregate demand rather than relative prices.

According to Lutz's dichotomization, the pre-Keynesian "neutralists" are distinguishable from the post-Keynesian "neutralists" in terms of the specific approach to neutral money. The pre-Keynesian neutralists use an approach that involves reference to the notion of a barter economy. The post-Keynesian neutralists, maintains Lutz, use an approach that does not require any reference to the notion of a barter economy.

As propounders of the pre-Keynesian approach Lutz cites Wicksell, Hayek, and J. G. Koopmans. As propounders of the post-Keynesian approach Lutz cites Patinkin, and Gurley and Shaw. The latter writers, points out Lutz, do not seek to infuse a barter-economy notion into their neutral-money conception. Instead, they view their task "as one of identifying the conditions under which a change in the supply of, or demand for money will leave *relative* prices, and the equilibrium quantities of goods, unaffected."<sup>8</sup>

Consider these conditions in turn. First, prices and money wages must be perfectly flexible. This condition had already been

<sup>6</sup> Cf. SAMUELSON, 1968, pp. 1-7.

<sup>7</sup> LUTZ, 1969, pp. 105-116.

<sup>8</sup> *Ibid.*, p. 112.

stipulated by Wicksell,<sup>9</sup> as well as later by Hayek.<sup>10</sup> (In his classic critique of Wicksell, Myrdal inveighed against the implausibility of this condition.<sup>11</sup>)

Second, there must be freedom from money illusion. In contrast to the first one, the second condition is a plausible one, being a rational inference from the possible occurrence of price-level movements.

Third, there must be an absence of *uncompensated* distribution effects of price level movements. As Lutz points out, this condition excludes the possibility of forced saving.<sup>12</sup>

Finally, people must have static price expectations, i. e., must expect current prices to continue in the future. Neither Patinkin nor Gurley and Shaw have explained how static price expectations are to be reconciled with the economic behavior implied in the first three conditions above. Yet a reconciliation problem emerges for the following reasons.

The first condition manifestly allows for the possibility of price-level changes whose rational observation would lead people to "lose [the] simple faith"<sup>13</sup> underlying static price expectation. As already indicated, the second condition also implies the possibility of price-level changes whose rational observation constitutes the basis for the freedom from money illusion. And, the third condition, by permitting compensation of distribution effects, also suggests rational inference from the possible occurrence of price-level changes.

Thus, within the framework of rational economic inference, the tenability of static price expectations would strictly fit only the state of *absence* of price-level movements. And the state of absence of price-level movements is strictly featured only by a barter economy. Alas, we have now come full circle: the conditions under which money would be neutral imply the notion of a barter economy! Indeed, Gurley and Shaw must have clearly had this ironic outcome in mind when, without mention of the term "barter", they observe that the conclusions of their neutral-money model "are valid under circumstances in which money is most likely to be merely a veil over the real aspects of economic

9 WICKSELL, 1936, pp. 92-101.

10 HAYEK, 1935, p. 131.

11 MYRDAL, 1939, pp. 133-134, 146.

12 LUTZ, 1969, p. 116.

13 GURLEY AND SHAW, 1960, p. 44.

behavior."<sup>14</sup> For how would we know that only the *real* aspects of economic behavior can be perceived without entertaining some notion of a barter economy?

It turns out, therefore that Lutz's conceptual dichotomization between "the older generation" and "the younger generation" of neutral money exponents is inappropriate. Paradoxically, the inappropriateness of this dichotomization is borne out by Lutz's own analysis of Patinkin's neutral-money conception. While Lutz lists Patinkin in "the younger generation", which supposedly makes no reference to the notion of barter, Lutz also includes Patinkin among the writers who *do* link the neutrality of money to the notion of a barter economy.

As Lutz points out, Patinkin explicitly attempts to establish some sort of equivalence between a barter and a money economy. But Patinkin concedes the inherent difficulty of establishing such equivalence. "Thus", acknowledges Patinkin, "the limiting position that we have defined as a barter economy is one in which there exists the same *real* quantity of money as in a money economy!"<sup>15</sup> The absurdity of this outcome is quite apparent to Patinkin, as his express excuse for it is that "there does not seem to be any other meaningful way of comparing the respective equilibrium positions of a barter and money economy."<sup>16</sup> Quite understandably, therefore, Lutz places Patinkin in the camp of "the older generation" *as well as* in that of "the younger". But such placing merely serves to illustrate the inappropriateness of Lutz's conceptual dichotomization of neutral-money exponents.

The point then is that while *chronologically* we can, following Lutz, separate the pre-Keynesian from the post-Keynesian writers, *logically* we can not. The expositions of neutral money, post- as well as pre-Keynesian, are inextricably bound up with explicit or implicit reference to the notion of a barter economy. Lutz's effort to extricate the post-Keynesian expositors from this snare is negated

14 *Ibid.*, p. 87. In this connection, one of Gurley and Shaw's reviewers, MARTY, 1961, p. 59, comments that "Models in which money is neutral are useful in that they focus attention upon the fact that changes in the money supply affect the level of money income via the public's role in establishing a desired balance between the stock of money and the flow of income". This comment is off target in that models in which money is *non-neutral* can *also* be used to illustrate the impact of changes in the money supply upon the level of money income via the role of liquidity preference.

15 PATINKIN, 1965, p. 75.

16 *Ibid.*

not only by Patinkin's explicit reference to barter, but by the logic of the conditions for fulfillment of the neutrality of money that the post-Keynesian propounders (including Gurley and Shaw, as well as Patinkin) have identified.

Subsequent to Lutz's exposition, it is noteworthy that even among the most recent post-Keynesian applications of the neutral-money concept, direct reference to a barter economy persists. Thus, note Jürg Niehans's analysis of the emergence of different exchange arrangements, ranging from barter to full monetization, as a result of differences in transactions costs.<sup>17</sup> In this vein, Niehans probes, *inter alia*, the assumptions crucial for the neutrality of money, and does so with specific reference to the notion of a barter economy.<sup>18</sup>

Also noteworthy in juxtaposition to Niehans's neutral-money exposition, is the analysis by Brunner and Meltzer of the differences between a monetary and a barter economy.<sup>19</sup> While made without mention of "neutral money", their analysis includes the exchange aspect of a stationary state or a world of steady growth as the limiting cases of economic theory. Affirming that in these limiting cases the main condition for the selection of a small group of assets as money disappears, Brunner and Meltzer point out the survival of a *secondary* condition in such cases. The main condition is the cost of acquiring information; the secondary condition is the cost of transfer of goods from one owner to another. Thus, transactions costs remain even in the limiting cases of economic theory that imply perfect certainty. And while stressing the unreality of perfect certainty, Brunner and Meltzer stop well short of equating a monetary with a barter economy. Their avoidance of mentioning "neutral money" even in the instance of perfect certainty may derive from the recognition that equating any monetary economy with a barter economy is nothing but a conceptual pitfall.

Finally, account should be taken of perhaps the leading recent exposition of the non-neutrality of money in the context of a neo-classical growth model, as expounded by Harry G. Johnson.<sup>20</sup> In all the expositions of neutral money previously noted in this paper, the method of analysis was that of comparative statics involving a

17 NIEHANS, 1971, pp. 773-783.

18 *Ibid.*, p. 782.

19 BRUNNER AND MELTZER, 1971, pp. 784-805.

20 JOHNSON, 1967, pp. 143-178.

once-for-all change in the quantity of money. Johnson probes the neutrality of money within the framework of growth theory. Accordingly, he focuses on the question whether a difference in the rate of change of the money supply would be capable of influencing either (a) the current growth rate or (b) the characteristics of the long-run equilibrium growth path. He finds that money is non-neutral in both of these senses.

He attributes this non-neutrality to the assumption that money is a non-interest bearing asset. Since he properly questions the current institutional arrangements that validate this assumption, Johnson is willing to contemplate the possibility of rather than "ensuring non-neutrality by accepting existing monetary institutional arrangements as defining money, ensured neutrality by re-defining institutional arrangements for supplying money."<sup>21</sup>

In the end, however, Johnson leaves no basis for ensuring the neutrality of money within dynamic analysis any more than within static analysis. For his case against the neutrality of money in the context of comparative statics is not surmounted by the context of dynamics. The case is an overwhelming one: that money is non-neutral "is obvious once one appreciates what assumptions are necessary to make money neutral. To begin with, changes in the price level will always have redistribution effects; in addition there will always be expectations problems in any realistic kind of model."<sup>22</sup> In this vein, changing the analysis of the role of money from a comparative-static to a dynamic framework merely serves to underscore the inherent unsuitability of the neutral-money conditions, particularly the expectations condition, to a monetary economy.

### III. Conclusions

(1) At least since Wicksell, the concept of and the conditions for the neutrality of money involve reference to the notion of a barter economy. Though a wide range of variants of the neutral-money idea can be found in the literature, these diverse contributions have in common the explicit or implicit connection of a monetary with a barter economy.

21 *Ibid.*, p. 178.

22 *Ibid.*, p. 84.

(2) Being premised on the notion of a barter economy, the concept of, as well as the conditions for, neutral money are a contradiction in terms. The search for meaning in the neutral-money idea is an exercise in futility, unless trying to square the circle can be considered wholesome mental gymnastics.

(3) As a heuristic device, the neutral-money doctrine beclouds, rather than clarifies, the important endeavor in monetary theory to explain the use and holding of money. Pursued to its logical conclusion, the neutral-money conception is a *reductio ad absurdum*.

(4) By the nature of its internal inconsistency, the neutrality of money is neither sustainable as a conceptual construct nor tenable as a policy norm. In essence, the neutrality of money constitutes an attempt to project onto a monetary economy the paradigm of relative prices of a barter system. To make this attempt literally is to suppress the fundamental qualitative differences between monetary and barter economies. To make the attempt figuratively is to indulge in the intermittently pleasurable exercise of thinking loosely.

(5) To our consolation, there is clear precedent for divergence from the line of neutral-money exponents extending from Wicksell to Hayek to Patinkin to Gurley and Shaw to Niehans. For alas, from his own "hunt for the conditions in which money is neutral", Schumpeter was "eventually led to the discovery that no such condition can be formulated, that is, that there is no such thing as neutral money or money that is a mere veil spread over the phenomena that really matter — an interesting case of a concept's rendering valuable service by proving unworkable."<sup>23</sup> In sum, neutral money reconsidered spells Schumpeter reaffirmed.

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23 SCHUMPETER, 1954, pp. 1088-1089. Cf. citation in GAMBINO, 1971, p. 194, footnote 6.

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