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Marx's Theory of Money

Modern Appraisals

Edited by
Fred Moseley



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Fred Moseley

Mount Holyoke College, Massachusetts, USA

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List of Contributors

Members of the International Symposium on Marxian Theory

Christopher J. Arthur, University of Sussex, UK

Riccardo Bellofiore, University of Bergamo, Italy

Martha Campbell, State University of New York–Potsdam, USA

Fred Moseley, Mount Holyoke College, USA

Patrick Murray, Creighton University, USA

Geert Reuten, University of Amsterdam, Holland

Tony Smith, Iowa State University, USA

Invited Conference Participants

Suzanne de Brunhoff, Centre National de la Recherche Scientifique, France

Duncan Foley, New School University, USA

Claus Germer, University of Parana, Brazil

Makoto Itoh, Kokugakuin University, Japan

Costas Lapavistas, University of London, UK

Pichit Likitkijsoomboon, Thammasat University, Thailand

Anitra Nelson, RMIT University, Australia

Introduction¹

Fred Moseley²

Marx considered his theory of money to be one of his main accomplishments and a significant advance over Ricardo's theory and classical economics in general, which had simply taken money for granted, or explained the existence of money in *ad hoc* fashion, on the basis of the practical difficulties of barter, unrelated to any theory of value.

Now, however, we have to perform a task never even attempted by bourgeois economics. That is, we have to show the *origin of this money-form*, we have to trace the development of the expression of value contained in the value-relation of commodities from its simplest, almost imperceptible outline to the dazzling money-form. When this has been done, the *mystery of money* will immediately disappear.

(Marx 1867: 139; emphasis added)

According to my interpretation of Marx's theory of money, Marx derived the necessity of money in a commodity (or market) economy from his fundamental assumption of the labour theory of value, in the crucial but often

¹ I would like to express appreciation to Mount Holyoke College for its generous financial support for the conference, especially Dean Donal O'Shea, and I would also like to thank Dawn Larder and Alena Zhaliuzniak for their excellent organizational and logistical work relating to it. Finally, I also would like to thank all the conference participants for our many lively and productive discussions, both in person and by email. In spite of our disagreements (or is it *because* of our disagreements?), I have learned a lot from these wonderful Marxian scholars about Marx's theory of money and other theories of money.

² This introduction represents my interpretation of Marx's theory of money. A number of the authors in this book disagree with my interpretation, as will be evident from their chapters. I have benefited from suggestions for the introduction from almost all the authors, especially Riccardo Bellofiore, Geert Reuten and Chris Arthur. The remaining errors are mine.

neglected section 3 of chapter 1 of Volume I of *Capital*.³ Very briefly, Marx's argument in section 3 is the following: each commodity is in principle equal to all other commodities, because of the abstract labour that they all contain (as derived in sections 1 and 2). In order for each commodity to be equal in practice with all other commodities, the quantity of abstract labour contained in commodities must be observable and comparable in some objective, socially recognizable form. However, the quantities of abstract labour contained in commodities are not directly observable as such. Therefore, these quantities of abstract labour must acquire an objective 'form of appearance' which renders them observable and objectively comparable. This necessity of a common unified form of appearance of the quantities of abstract labour contained in commodities ultimately leads to the conclusion that this unified form of appearance must be money. The key characteristics of money – homogeneous quality and definite quantities – are derived from these same characteristics of abstract labour. The 'simple' form of value is 'insufficient' (1867: 154), and the 'expanded' form of value is 'defective' (1867: 156–7), because these forms do not adequately express the quantities of abstract homogeneous labour contained in commodities.⁴

Marx summarized this conclusion at the beginning of chapter 3:

Because all commodities, as values, are objectified human labour, and therefore in themselves commensurable, their values can be communally measured in one and the same specific commodity, and this commodity can be converted into the common measure of their values, that is into money. *Money* as a measure of value is the *necessary form of appearance* of the measure of value which is immanent in commodities, namely *labour-time*.

(Marx 1867: 188; emphasis added)

For similar interpretations of Marx's derivation of the necessity of money from his labour theory of value, see Hilferding (1910: ch. 1); Rosdolsky (1977: ch. 5–6); Banaji (1979); Weeks (1981: ch. 6); Murray (1988: ch. 14); and Itoh and Lapavistas (1999: ch. 2, although this also argues that the derivation can logically be separable from the notion of abstract labour as a theory of forms of value).⁵

³ Mark Blaug misses entirely the importance of Marx's derivation of the necessity of money. Blaug states: 'The reader will miss little by skipping over the pedantic third section of chapter 1 on which the hands of Hegel lie all too heavily' (1985: 268).

⁴ Jean Cartelier (1991) and his collaborator Carlo Benetti have argued that there is a logical flaw in Marx's 'inversion' of the expanded form of value to obtain the general form of value. For a detailed response to this critique, see Moseley (1998).

⁵ I would argue that Marx's theory of money is also superior to neoclassical and Sraffian theories of money for the same reason, because Marx's theory explains the necessity of money on the basis of its fundamental theory of value, and thus provides an integrated theory of value and money, and these other theories do not; but that is a subject for another occasion.

Marx's theory of money also provides important quantitative conclusions regarding the price of commodities and the quantity of money in circulation. In the first place, the *prices* of commodities (i.e., the exchange ratios between commodities and money) are determined by the relative quantities of socially necessary labour-time contained in the commodities and the money commodity. Algebraically:⁶

$$P_i = (1 / L_g)L_i \quad (1.1)$$

where P_i is the price of each commodity, L_i is the socially necessary labour-time contained in each commodity, and L_g is the labour-time contained in a unit of gold (i.e., the 'value of money'). The L_i s and L_g are taken as given in Marx's labour theory of value, and they jointly determine the P_i s.

The inverse of L_g is the quantity of gold produced per hour, which determines the quantity of money new-value produced per hour of socially necessary labour-time in all other industries. This quantity of money new-value produced per hour has been called the 'monetary expression of labour-time' or 'MELT':

$$\text{MELT} = 1 / L_g \quad (1.2)$$

Thus, equation (1.1) can be rewritten as:

$$P_i = (\text{MELT}) L_i \quad (1.3)$$

We can see that the price of each commodity is proportional to the socially necessary labour-time contained in it, with the MELT as the factor of proportionality.⁷

A second quantitative conclusion that follows from Marx's theory of money has to do with the relation between the *quantity of money* in circulation and the total *sum of prices* of commodities. According to Marx's theory, the prices of commodities are determined as in the equations above, as functions of the quantities of socially necessary labour-time contained in commodities and gold. It follows that the sum of prices also depends on the sum of the quantities of socially necessary labour-time contained in all the commodities together (the L_i s in the above equations), and that the sum of

⁶ The equations presented here are not explicitly in *Capital*, but I think they accurately express the logic of Marx's theory of value and price in Volume I.

⁷ These prices determined in Volume I are simple abstract prices which do not yet take into account the equalization of profit rates across industries. However, Marx argued that the sum of prices does not change as a result of the equalization of profit rates, so that the further conclusions discussed in the paragraphs below regarding the sum of prices are not affected by this equalization. This argument is of course very controversial and is discussed in this volume by Itoh and Moseley (chapters 11 and 12).

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prices is independent of the quantity of money in circulation (i.e., there is no M in the price equations above). Marx argued further that the quantity of money in circulation (M^*) is determined by the sum of prices ($P = \sum P_i$), along with the velocity of money:

$$M^* = P/V \tag{1.4}$$

Marx argued that the quantity of money in circulation would adjust to the sum of prices (i.e., to the 'needs of circulation') by hoarding and dishoarding and/or by a change in the velocity of money.⁸

These quantitative conclusions are the basis of Marx's critique of the quantity theory of money of Hume and Ricardo, amongst others (Marx 1867: 219–21 and Marx 1859: 157–87). Marx argued that the fundamental mistake of the quantity theory is that it considers money *only as means of circulation*, and ignores the other functions of money, especially the most fundamental function of the *measure of value*, and also the function of the store of value. We have seen above that, when money functions as the measure of value in order to determine prices, the magnitudes of prices depend on the relative quantities of labour-time contained in commodities and money, and do not depend on the quantity of money in circulation. Therefore, an autonomous change in the quantity of money does not result in a change of prices (assuming no change in the labour-times contained in commodities), but instead is offset by hoarding and dishoarding (as hoards, money functions as store of value) and/or by a change in the velocity of money. By ignoring the function of money as measure of value, the quantity theory misunderstands the fundamental relation between money and prices.

Thus we can see that Marx's theory provides an *endogenous* theory of money in these three senses: (1) the necessity of money is derived from the necessity to represent the abstract labour contained in commodities objectively; (2) the exchange-value of money is derived from the labour-time required to produce the money commodity and other commodities (as a specific case of the labour theory of value); and (3) the quantity of money in circulation is derived from the sum of prices.

Marx's theory of the relation between the quantity of money in circulation and the sum of prices summarized above assumes that money in circulation is gold coins, or else tokens or paper money which are convertible into gold at legally defined rates. The case of *inconvertible paper money* is somewhat different. In this case, according to Marx, the MELT depends not only on L_g but also

⁸ This simple equation could be further developed by taking into account credit sales and debt payments. Also most of the total money necessary in circulation might be supplied by credit money. But the main point would remain the same: the total money required for circulation is determined by the sum of prices, not the other way around. (See Lapavistas 2000 for a discussion of both of these points.)

on the ratio of the quantity of paper money forced into circulation (M_p) and the quantity of gold money that would be required if paper money were convertible (M^* , as determined by equation 1.4 above). Algebraically, in this case:

$$\text{MELT}_p = (1 / L_g)(M_p/M^*) \quad (1.5)$$

For example, if twice as much paper money were forced into circulation than is required for circulation on the basis of gold prices (i.e., $M_p/M^* = 2$), then the MELT would double and hence the prices of all commodities would also double. Marx argued that in this case, the paper money does not represent quantities of labour-time directly, but only indirectly through gold. In the above example, twice as much money would represent the same quantity of gold money required for circulation, and this quantity of gold money would in turn continue to represent the same quantity of socially necessary labour-time contained in commodities (see Marx 1859: 119–22; 1867: 221–6).

Therefore, in the case of inconvertible paper money, Marx's theory is similar to the quantity theory of money, in the sense that the quantity of money is an exogenous variable and determines (in part) prices. However, Marx's theory is still significantly different from – and superior to – the quantity theory in the following respects: (1) according to Marx's theory, the quantity of money does not determine prices directly, but rather indirectly through the MELT; (2) Marx's theory also explains the necessity of money; (3) Marx's theory explains not only the general price level (by the MELT), but also individual prices, as determined by the MELT and quantities of socially necessary labour-time; and, most importantly, (4) Marx's theory of money also provides the basis for a theory of surplus value, and the quantity theory does not.

In recent decades, a new criticism has been made of Marx's theory of money: that it requires that money be a *produced commodity* (e.g., gold) and, in contemporary capitalism, money is no longer based on gold in any way (since the 1930s for domestic money, and since the early 1970s for international money). Therefore, even if Marx's theory of money might be acceptable for commodity money, critics argue that it does not apply to the current monetary regime of non-commodity money (e.g., Lavoie 1986).

In considering this criticism, it is important to distinguish between the different functions of money (which is not always done), and especially between the functions of the measure of value and the means of circulation. It is clear that money as means of circulation does not have to be a commodity in Marx's theory, as Marx himself emphasized (Marx 1867: 221–7 and 1859: 107–22). The real question is whether money must be a commodity in Marx's theory in its fundamental function as measure of value.

In order to provide a more complete and up-to-date appraisal of Marx's theory of money, I organized a small working conference in August 2003, at

Mount Holyoke College (Massachusetts, USA), and invited the members of the International Symposium of Marxian Theory (which I organized in 1991, and which has met annually since then) and also some of the leading specialists around the world on Marx's theory of money to participate in this conference (see the list of participants on p. vii).

As will be apparent from the contributions, this collection of authors is far from a monolithic group. There are significant disagreements among them about Marx's theory of money, both about the nature of the theory and about the validity of the theory. Some authors think that the standard interpretation of Marx's theory of money presented above is a misinterpretation, but they all agree that money is extremely important in Marx's theory, and that Marx's theory is the most promising basis (in some cases in combination with other theories) on which to develop a theory of money that will explain the important monetary phenomena in contemporary capitalism, and is certainly a more promising basis than either neoclassical theory or Sraffian theory.

In my letter of invitation to the conference participants, I requested that their papers address one or more of the following important questions related to Marx's theory of money:

- 1 Does money have to be commodity money in Marx's theory?
- 2 Is there any sense in which money is a commodity today?
- 3 If money is not a commodity, how is the value of money or its inverse, the 'monetary expression of labour time', determined?
- 4 Are there logical problems in Marx's derivation of money in section 3 of chapter 1 as the necessary form of appearance of abstract labour?
- 5 Is Marx's critique of the quantity theory of money valid?
- 6 Are there logical problems related to money in Marx's theory of prices of production in Part II of Volume 3?
- 7 What are the main tasks for the further development of Marx's theory of money?
- 8 What are additional critiques of and alternatives to Marx's theory of money?

The studies collected in this volume were first presented at this conference and have been revised subsequently to take into account the discussions at the conference.

The first group of chapters deals with Marx's basic theory of money, as presented in Part I of Volume I of *Capital*. Claus Germer ('The commodity nature of money in Marx's theory') argues that money must be a commodity in Marx's theory in its function as measure of value (but not in its function of means of circulation). In the first part of this chapter, Germer presents substantial textual evidence from Marx's writings to support his claim that Marx always assumed that money is a commodity (e.g., gold),

even in advanced capitalism. He argues that Marx never once mentioned the possibility that money as measure of value could be a non-commodity (standing on its own, without commodity backing). In the second part of the chapter, Germer discusses the theoretical bases for Marx's assumption of commodity money. Germer argues that, in the first place, the measure of value must itself possess value, and therefore must be a product of labour. In the second place, the social regulation of labour in a commodity economy requires that money be a commodity, because commodity-producing labour is not consciously and directly regulated. In a commodity economy, individual labour can be converted into social labour only through exchange with a commodity which contains an equal amount of social labour. Paper money cannot convert individual labour into social labour, because paper money does not itself contain social labour.

Duncan Foley ('Marx's theory of money in historical perspective') considers two problems related to Marx's theory of money: first, the definition and measurement of the quantity of social labour-time represented by a unit of money (or its inverse, the 'monetary expression of labour-time'); second, the application of Marx's commodity-money theory to contemporary monetary institutions based on state-credit money. According to Foley, the orthodox interpretation of Marx's theory of money presented above is a misinterpretation. In Marx's theory, social labour-time and the price expression of exchange value *emerge simultaneously*, so that no *ex ante* measure of social labour time is possible and thus social labour-time cannot determine prices (which is similar to the 'value-form' interpretations of Marx's theory presented in recent years, e.g., Reuten and Williams 1989; for a critique of the value-form interpretation, see Moseley 1997). In empirical work, Foley argues that rough estimates of social labour-time can be derived by weighting to account for the characteristics of workers, or by relative wages, or by the assumption of uniform proportions of concrete labour across sectors. These estimates can then be used to derive a rough estimate of the 'monetary expression of labour time' (MELT) as the aggregate ratio of money value added to total living labour-time, which in turn can be used to derive rough estimates of necessary labour time and surplus labour-time, the all-important determinants of profitability. Foley acknowledges that this empirical estimate of the MELT does not provide a theoretical explanation of what determines the MELT, which he says is 'left hanging theoretically'. (Itoh makes the same point in chapter 11 in this volume.) In the second part of chapter 2, Foley analyses state-credit monies through Marx's concept of fictitious capital, leading to a critique of the neoclassical view of the value of money as a bubble. Foley concludes with a discussion of the dilemmas involved in the application of Marx's theory of money to current world monetary institutions, and argues that Marxian theory should no longer assume commodity money, but should be developed and extended to include contemporary paper money.

Patrick Murray ('Money as displaced social form: why value cannot be independent of price') argues that Marx's theory of money is a window into what is most distinctive about his theory of value and his critique of political economy. In Marx's theory, value results not from just any sort of labour, but rather from a specific social type: privately undertaken labour that produces commodities for sale. Murray argues that Ricardo was oblivious to the topic of specific social form, but Marx's theory of value emphasizes the social form of labour specific to capitalism. Because Ricardo, and economics in general, neglect the specific social form of labour, they cannot understand either value or money. Murray argues further that Marx's derivation of money in section 3 of chapter 1, as the necessary form of appearance of social labour in capitalism, is similar to Hegel's essence logic: essence must appear. Murray also argues that, since private labour can be socially validated only through the sale of its products, value and money are *inseparable* (although not identical), so that they are not related as independent and dependent variables in the usual sense of these terms. Consequently, Marx's theory does not present a price theory of the conventional sort, but instead develops a new kind of price theory with an emphasis on social form. Finally, Murray argues that demand also plays an important role in Marx's theory of value and money. Demand makes value possible, because labour does not produce value unless there is demand for the product.

Anitra Nelson ('Marx's objections to credit theories of money') discusses different theories of non-commodity money (credit theories of money, theories of the nominal standard of money, and labour-money schemes) that Marx was familiar with, and examines Marx's objections to these theories. Marx's main objection was that these theories failed to consider the fundamental function of money as measure of value. In his critique, Marx argued that the measure of value must possess value and therefore must be a commodity (as Germer argued in chapter 1). Nelson argues that there was a broader philosophical and political context for Marx's objections to these theories. She argues that these theories of non-commodity money were very weak and incomplete, so it is not surprising that Marx rejected them. However, Nelson argues that current Marxian theories of credit money (e.g., Foley, Bellofiore) can avoid Marx's objections to credit money and can be made consistent with Marx's labour theory of value.

The next three papers present extensions and/or reconstructions of Marx's theory of money. Costas Lapavistas ('The universal equivalent as monopolist of the ability to buy') argues that Marx's theory of money presented in section 3 of chapter 1, as the necessary form of appearance of abstract labour (which he generally accepts), has an important gap: it does not explain the process through which money emerges in commodity exchange. Lapavistas aims in this chapter to fill this important gap in Marxian monetary theory. His argument is based on a reinterpretation of Marx's forms of value in section 3 of chapter 1 to apply to relations between

commodity-owners, rather than relations among the commodities themselves. Marx's theoretical couplet of the relative and equivalent forms of value is reinterpreted as the 'offer to sell' and the 'ability to buy', and the development of this relationship shows that money emerges because all commodity-owners offer their commodities for sale against it. Once a commodity attracts several 'offers to sell', an asymmetry is created: a stronger 'ability to buy' on the part of that commodity, which sets in motion a self-reinforcing process which eventually leads to all commodity owners 'offering to sell' their commodities against one single commodity, which thus acquires a 'monopoly of the ability to buy'. Social customs regarding commercial transactions and the representation of wealth also play a role in money's emergence. This argument is based on the forms of value, not on the substance of value (abstract labour), and therefore applies to pre-capitalist commodity exchange, as well as to capitalist commodity exchange. Lapavistas also argues that money does not have to be a commodity in Marx's theory (although he argues that money is necessarily a commodity when it first emerges). If paper money possesses a 'monopoly on the ability to buy', then it is also money, similar to gold. Lapavistas's extension of Marx's theory is elaborated more fully in a recent book (Lapavistas 2003).

Geert Reuten ('Money as constituent of value') focuses on Marx's theory of money in chapter 3 of Volume I in relation to the theory of value in chapter 1. Reuten's argument implies that the orthodox interpretation of Marx's theory of money presented above is a misinterpretation, and Reuten presents an alternative 'value-form' interpretation of Marx's theory. For Marx, he argues, the *ideal immanent (or introversive) substance of the value* of commodities is 'abstract labour'. Marx posits 'time' of abstract labour as the 'immanent measure' of value; however, this is a notion at a high level of abstraction. It does not provide a measure in the usual sense of measuring. (We could measure time of heterogeneous concrete labour, but this is *not* what Marx is getting at.) The notion of value thus posited is what Reuten calls the simple-abstract notion of value (of chapter 1). This simple notion is complemented by the *ideal extroversive form of the value* of commodities: money (chapter 3). It is only henceforth that 'value' has been fully constituted. Consequently 'abstract labour' disappears from Marx's vocabulary. Money establishes the actual commensuration – the homogeneity – of commodities; in combination with a particular standard (such as a pound or a dollar) it provides the only one actual ideal measure of value (Marx indeed stresses that the measure is 'ideal'). The introversive substance and the extroversive form of value are *inseparable*: value cannot be concretely measured without money. Reuten's interpretation relies on a dialectical interpretation of Marx's frequent use in chapter 3 of the German text of the term *Veräußerung* (and other terms with the same root of *außer*) and which he translates by *extroversive* as opposed to the *introversive* or *immanent* of chapter 1. In the English text of chapter 3 the continuity of the term disappears due to a variety of substitutes.

Christopher J. Arthur ('Value and money') presents a 'value-form' theory of money, which is inspired by Marx's emphasis on the importance of value as a social form, but is not necessarily Marx's theory per se. The 'value-form' approach to money holds that money is not a 'veil' of the 'real' material content of economic relations; rather money is essential to value relations. Arthur defines value in the first instance as the 'power of exchange', and he argues that only money makes value actual. Then the concept of measure of value is investigated, because it is this function of money that most Marxist theorists argue must be a commodity. Arthur argues to the contrary that paper money serves the actual functions of money, in including that of measure of value. Arthur then discusses the magnitude of value, and argues that only after commodities have been commensurated by money is there any meaning to a law of value rooted in labour-time and appearing as price. The money-form as such structures such determinations as socially necessary labour-time, deciding to what degree actual labour-times are socially validated. The concept of price of production is then briefly discussed. Once it is understood that value is necessarily measured in money, then prices of production may be interpreted as more 'finished forms' of value than 'direct prices'. In general, Arthur argues that the categories of socially necessary labour-time, value and price emerge from the systematic interactions of a complex whole, rather than being presupposed to its development.

Riccardo Bellofiore ('The monetary aspects of the capitalist process in Marx: an investigation from the point of view of the theory of the monetary circuit') proposes a reconstruction of Marx's monetary labour theory of value and surplus value where the cycle of money capital is re-read as a monetary sequence started by initial finance to production and innovation. The reference here is to the Italian version of the theory of the monetary circuit developed in the late 1970s by Augusto Graziani, which has been extended to Marx by Marcello Messeri and the same Bellofiore, who were heavily influenced by Claudio Napoleoni. This approach follows the monetary heterodoxy of Wicksell, Keynes in the *Treatise on Money*, and Schumpeter. Bellofiore begins briefly reviewing the basics of this perspective where capitalist money is first of all bank finance *ex nihilo*, and then looks at Marx's theory of money as a commodity, arguing that it is both a theoretical necessity in *Capital* as it is and untenable. He argues that only finance to production as the *ex ante* validation of living labour as latent abstract labour may reinstate Marx's labour theory of value as a theory of exploitation. He then shows in which sense the macro-monetary interpretation of the monetary circuit and Marx's assumption in Volume I about the real wage of the working class as given fixes class distribution in a way akin to some Post Keynesian tradition, where (bank-) money supply is endogenous and firms decide the composition of production irrespective of consumer sovereignty. Next he argues that Marx's theory of dynamic competition is incomplete without Schumpeter's role of banks as financing innovation. Finally, Bellofiore examines Volume III's

analysis of banking and credit, and argues that there, though Marx is still a prisoner of the primacy of money as commodity and of banks as financial intermediaries, he has hints of money as pure credit money not backed by a commodity.

The next two chapters deal with Marx's critique of the quantity theory of money. Martha Campbell ('Marx's explanation of money's functions: overturning the quantity theory') examines Marx's discussion of the functions of money in chapter 3 of Volume I, and emphasizes Marx's critique of the quantity theory of money in this chapter. Campbell argues that Marx's fundamental critique of the quantity theory is that this theory considers money *only as means of circulation*, and ignores the more basic function of *measure of value*. According to Marx's theory, money functions as the measure of value because commodities require some objective form of appearance of their values. To provide such an objective form of appearance, the values of all other commodities are expressed in terms of quantities of the money commodity (i.e., in terms of their *prices*). Therefore, commodities enter circulation with prices and money enters circulation with a value. The quantity theory, on the other hand, ignores the function of measure of value because it has no theory of value, and assumes that commodities enter circulation *without* prices and money enters circulation without a value, which leads to the erroneous conclusions that the value of money and the sum of prices are determined by the quantity of the money commodity in circulation. The quantity theory, on the other hand, assumes that money is token money, a form of money which is extinct and irrelevant to capitalism. Campbell also argues that in the final section of chapter 3, Marx posits the idea that capitalist money originates from money's function as means of payment, and that the laws associated with that function are the beginnings of a theory of credit money.

Pichit Likitkijssomboon ('Marx's anti-quantity theory of money: a critical evaluation') argues that Marx's critique of the quantity theory of money is misconceived. He argues that Marx's critique is based on the works of Tooke and Fullarton, which contain serious logical flaws, including: a false distinction between money in circulation and hoards; a perfectly elastic velocity of money; perfectly inelastic investment spending with respect to the rate of interest; the assumption of the real bills doctrine; and, most importantly, a disconnection between international gold flows and the domestic money supply. Furthermore, he argues that Marx's account of the monetary mechanism does not satisfactorily explain the functioning of hoards and how the quantity of money adjusts to the sum of prices. Likitkijssomboon then briefly outlines Ricardo's theory of the quantity of money and the monetary mechanism as developed further by Senior, which he argues is significantly different from Hume. Ricardo and Senior assumed, like Marx and unlike Hume, that in the long run the exchange-value of gold-money depends on its labour-value, and the quantity of money depends on prices. However,

Ricardo and Senior argued that the adjustment of money to prices is by means of a change of current gold production (rather than by a change of hoards or a change in velocity, as in Tooke and Marx), and since gold production is such a small part of the total existing stock of money, such an adjustment to long-run equilibrium happens very slowly. Therefore, the short run is more important than the long run, and in the short run the direction of causation between money and prices is reversed: prices depend on money, rather than the other way around. Likitkijsomboon concludes that Marx's critique of the quantity theory of money should be rejected, and his labour theory of value and the value-form should be combined with Ricardo's quantity theory of money and the monetary mechanism.

The next two chapters have to do with the relation between Marx's theory of money and the transformation of values into prices of production in Volume III of *Capital*. Makoto Itoh ('The new interpretation and the value of money') considers the 'new interpretation' of the transformation problem, presented in recent years by Foley and Duménil and others, and focuses on the value of money in the new interpretation. According to the new interpretation, the value of money is defined as the aggregate ratio of the total living labour to the total net price (as discussed in chapter 2), and the value of money *does not change* in the transformation of values into prices of production. Itoh argues that, although this definition provides interesting empirical insights, it is inconsistent with Marx's theory because it implies that the real wage changes in the transformation, and hence the labour time obtained in the real wage and the rate of surplus-value also change. He argues further that another important weakness of the new interpretation is that it does not provide a theory of how the value of money is *determined*; it only provides an empirical estimate. Itoh then briefly summarizes his own interpretation of the transformation of values into prices of production, which is based on his general interpretation of the dual concept of value in Marx's theory (substance of value and form of value). Itoh also criticizes Moseley's interpretation of the value of money and the transformation problem (presented in the following chapter) which, like the new interpretation, argues that the value of money does not change in the transformation. Itoh argues that Moseley does not explain sufficiently why the value of money is not affected by the equalization of profit rates across industries, including the gold industry. Itoh then analyses the determination of the fluctuations of the value of money within business cycles. The final section considers the determination of the value of money in the current monetary regime of non-commodity money, and emphasizes the increased possibility of inflation as well as deflation and the monetary instability of this period.

Fred Moseley ('Money has no price: Marx's theory of money and the transformation problem') argues that the prevailing interpretation of Marx's theory of money and the transformation of values into prices of production (as represented by Bortkiewicz and Sweezy) treats the money commodity

(e.g., gold) essentially the same as all other commodities. It is assumed that the money-commodity has a value-price (price proportional to labour-time) and also has a price of production, which could be different from its value-price, just like all other commodities. Furthermore, it is assumed that, if the composition of capital in the gold industry is less than the social average, then surplus-value will be transferred from the gold industry to other industries in order to equalize the rate of profit. As a result, the total price of production of commodities will be greater than the total value-price of commodities, contrary to Marx's claim. Moseley argues that this standard interpretation of the transformation problem is wrong on all three of these important points. He argues that the money commodity has neither a value-price nor a price of production, so that a transformation of the former into the latter is not possible. Further, he argues that there can be no transfer of surplus-value from the gold industry to other industries because surplus-value in the gold industry is the *actual quantity of surplus gold produced*, which cannot change into a different quantity through the transformation of values into prices of production. There is equalization of the profit rate in the gold industry over time, but this equalization does not take place through the transfer of surplus-value from the gold industry to other industries in a single period, but rather by opening and closing marginal mines over subsequent periods, which changes the amount of surplus-value produced in the gold industry. It follows from this interpretation that the total price of production of commodities is *always identically equal* to the total value-price of commodities (and that total profit is always equal to total surplus-value), as Marx argued.

The final two chapters are about Marx's theory of world money. Suzanne de Brunhoff ('Marx's contribution to the search for a theory of money') argues that, according to Marx's theory, money is a necessity for the exchange of commodities produced by private independent producers. When commodities enter into circulation, their values appear in the shape of money prices, and money takes the form of the standard of prices. In a capitalist world divided into nations, each nation has its own currency with its own standard of price. When gold was world money, currencies had a common value reference. However, national differences, economic competition and unequal access to gold reserves were still widespread under the gold standard. Since gold has been demonitized, the US dollar now functions as the international money standard. This is possible only if the US norms of production and management of labour are the dominant ones in the current period of capital accumulation, and if the US norms spread around the world through the dollar standard. But de Brunhoff argues that a homogeneous American world empire cannot exist. The dollar standard requires international agreements and conventions which do not eliminate competition and tensions between different currencies. She concludes that Marx's theory helps us to understand the role of money and currency standards and the new contradictions of contemporary global capitalism.

Tony Smith ('Towards a Marxian theory of world money') presents a Marxian critique of a proposal by Paul Davidson, a leading Post-Keynesian economist, to create a new form of world money, which is designed to attain full employment and balanced industrial development throughout the global economy. Smith argues that, according to Marxian theory, these goals cannot be attained so long as the social relation of capitalism remain in place. Since Davidson does not call capitalism into question, his proposal is ultimately incoherent. In the course of this critique, Smith discusses the essential features of a Marxian concept of world money, which include: the accumulation of money as the main goal of capitalism, the social antagonism of the capital-wage labour relation, inter-capitalist and inter-state competition, the dominant role of the currency of the hegemonic state, and uneven development among capitalist nations.

What are the main conclusions that emerge from these studies? What are the answers suggested to the main questions of the conference listed above? What are the chief disagreements that remain? What are the principal remaining open questions?

The most important conclusion is that most of the authors agree, with varying degrees of certainty and for different reasons, that *money does not have to be a commodity in Marx's theory*, even in the fundamental function of measure of value (even though Marx himself may have thought that money as measure of value does have to be a commodity). Pure paper money (not backed by gold) can also function as measure of value. (Similar conclusions have also been reached by Matthews 1996 and Williams 2000.) Germer is the strongest proponent of the opposing view that money as a measure of value has to be a commodity in Marx's theory (Bellofiore also holds this view) because the measure of value must possess value, and because the regulation of social labour requires that individual labour be converted into social labour by equating its product with another product of labour.

I myself would argue that Germer's argument that 'the measure of value must possess value' is a historical contingency, not a theoretical necessity. In order to function as the measure of value, a particular thing must be accepted by commodity owners as the universal equivalent. Until the 1930s, in the absence of any state-mandated alternative, commodity owners required that the universal equivalent (and hence the measure of value) had to be a commodity, or at least convertible into a commodity at legally defined rates. However, in the Great Depression, it became impossible to maintain the convertibility of paper money into commodity money. Governments legalized the inevitable, and commodity owners had no choice but to accept paper money by itself as the universal equivalent, and hence as the measure of value.

With respect to Germer's second argument, I agree that the regulation of social labour requires that private, individual labour must be converted into social labour by being represented in some observable, socially acceptable

form. However, I do not think that this socially acceptable form of appearance of social labour has to be a commodity. Once pure paper money (not backed by a commodity) has been declared by governments as the universal equivalent, then this pure paper money can also function as the form in which social labour is expressed (i.e., can also function as the measure of value). Indeed, in this case, paper money *must* function as the measure of value and even though it contains no labour, because there is no other possible measure of value, and no other possible way to represent social labour in an objective form.

However, this conclusion raises the important further question: if social labour is represented by paper money, then what determines the quantity of social labour that is represented by a given quantity of paper money (since it is no longer determined by the labour time contained in gold)? In other words, what determines value of money or the 'monetary expression of labour time' (MELT) when money is no longer a commodity? Unfortunately, none of the authors in this book who accept that money as measure of value does not have to be a commodity has presented an explanation of how the value of money or the MELT is determined in the case of pure non-commodity money. Foley argues that the MELT can be empirically measured *ex post* by the aggregate ratio of money value-added to living labour, but he acknowledges that this empirical estimate of the MELT does not provide a theoretical explanation of what determines the MELT, which he says is 'left hanging theoretically'. This empirical estimate of the MELT (= value added/living labour) cannot be used to determine the MELT, because then the MELT would depend on value added, and could not be used to determine value added (or the price of commodities as in equation 1.1 above) because that would be circular reasoning. Nelson argues that the value of money is determined by the 'purchasing power' of money (i.e., by the inverse of the price level). However, like Foley's empirical estimate, this interpretation of the value of money cannot be integrated into Marx's labour theory of value, in which price depends in part of the value of money, because that would also involve circular reasoning.

I myself suggest that a promising starting point for developing an explanation of the determination of the MELT in the case of pure non-commodity money is Marx's discussion of the determination of the MELT in the case of inconvertible paper money, discussed above. I present one such possible explanation in Moseley (2004). I argue that the determination of the MELT in this case is essentially the same as in the case of inconvertible paper money discussed by Marx, which leads to the surprising conclusion that *it does not make any difference* to the determination of the magnitude of the MELT *whether or not* money is assumed to be still based on gold in some way. Bellofiore (2004) presents a critique of my suggestion.

An important disagreement among the authors in this volume is that Foley's and Reuten's chapters present a different interpretation of Marx's

theory of money from the standard interpretation presented at the beginning of this introduction, especially with respect to the quantitative determination of price (represented by equation 1.1). These studies present 'value-form' interpretations of Marx's theory, according to which abstract labour does not exist as a quantity distinct from prices, and therefore abstract labour cannot determine prices. Foley argues that, in Marx's theory, abstract labour and prices 'emerge jointly' in the sphere of circulation when the product is sold, with causation between abstract labour and prices running in both directions. Reuten argues that Marx originally posited in chapter 1 that abstract labour exists as 'intuitive' quantities of labour time, but in chapter 3 this simple notion is made more complex and determinant, as complemented by the systemic and determinate existence of money as the 'extroversive' form of value. I myself think that the textual evidence to support these 'value-form' interpretations of Marx's theory of value and prices is very weak and unpersuasive. There may be logical problems with Marx's theory of price, as represented by equation 1.1 above (I do not think that there are serious logical problems, especially compared to other theories), but I think that the textual evidence to support the standard interpretation is very strong, and much stronger than the evidence for these 'value-form' interpretations. Further research should obviously continue to debate these important issues.

There is also a disagreement between Campbell and Likitkijksomboon over Marx's critique of the quantity theory of money. Campbell accepts Marx's critique, and emphasizes that the quantity theory fails to take into account the fundamental function of the measure of value. Likitkijksomboon argues that Marx's critique contains logical flaws and should be abandoned, and Marx's labour theory of value should be combined with Ricardo's quantity theory of money. It is hoped that this debate will continue, and that Likitkijksomboon will elaborate more fully how Marx's labour theory of value and Ricardo's quantity theory of money can be integrated in a logically consistent way. In particular, Likitkijksomboon needs to explain how this synthesis explains the value of money and function of money as measure of value.

There is also a disagreement between Itoh and Moseley over whether or not, in a regime of commodity money (e.g., gold), the transformation of values into prices of production affects the exchange-value of money. Moseley argues that this transformation does *not* affect the total price of commodities, and hence does not affect the exchange-value of money. Itoh argues the opposite. Both authors and others should continue to debate this important question. However, in a regime of pure paper money this question is less important because the total price of commodities, and hence the exchange-value of money, do not depend in any way on the gold industry.

Finally, the contributions, by de Brunhoff, Smith and Bellofiore seem to suggest that world money might be one function which sometimes might

still require that money has to be a commodity.⁹ Paper money is inevitably national money. Therefore, there is a fundamental conflict in contemporary capitalism, in which *one nation's money* functions as *world money* (as the US dollar currently does). It might even turn out, in some future crisis, that this conflict is not always resolvable, and nations might have to revert to some form of commodity money to function as world money and settle international payments (perhaps with the leading currency or currencies being convertible again into gold, as the dollar was in the Bretton Woods monetary system). At the very least, the necessity of world money will continue to be a source of conflict in the decades ahead.

In terms of future research, I would suggest that the most urgent task is to develop further a theory of pure credit money (without commodity backing), based on Marx's theory, in a way that is consistent with Marx's labour theory of value and surplus labour theory of surplus-value. Promising beginnings concerning this important task have been made by several of the authors in this book and by others (e.g., Lipietz 1982; Ganssmann 1998), but much work remains to be done. Most importantly, there needs to be an explanation of the determination of the value of money or the MELT in the case of non-commodity money. This key component of Marx's theory of value and surplus-value should not be 'left hanging theoretically'. Relatedly, what is the relation between the quantity of money and the sum of prices in the case of pure credit money: does the quantity of money determine prices, or do prices determined the quantity of money? Further, what are the different forms of credit money, and what determines the quantity of each of these different forms? These are some of the important questions that should be explored in the further development of a Marxian theory of credit money. Campbell suggests in chapter 9 that Marx's analysis of the function of means of payment provides the beginnings of a Marxian theory of credit money. Post-Keynesian theories of money emphasize credit money as the dominant form of money in capitalism, and therefore these theories should be studied and explored for possible intersections.

It is hoped that the studies in this volume will stimulate further research along these lines and will contribute to the further development of Marxian theories of money for the twenty-first century.

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1

The Commodity Nature of Money in Marx's Theory

Claus Germer

Marx's theory of money has become a growing subject of debate in recent years. A crucial point in the discussion deals with the physical nature of money: that is, whether or not money must be a commodity within this theory. A significant number of contemporary Marxist authors defend the point of view that Marx's theory is compatible with non-commodity forms of money (Lipietz 1983; Foley 1986; Reuten 1988). Nonetheless it is important to note that these authors have not been able to demonstrate their position based on textual evidence from Marx's work.

This chapter has two objectives. In the first part – more succinct because it uses concepts that are more well known – I seek to demonstrate that Marx unequivocally defines money as a commodity and that he maintains this definition in his analysis of advanced capitalism. In the second part I attempt to clarify the theoretical bases that he provides, in order to demonstrate that from the point of view or logic of his theoretical framework, money must be a commodity. In order to do so I resort primarily to Marx's own writings, through the presentation of the logical structure of his theory, and showing where the passages needed for my demonstration are situated within his work. The numerous literal quotations from Marx's work can be justified by the need to leave no room for doubt regarding my interpretation. I also seek to show that attention must be paid both to what Marx does and does not say. This is important because we can thus appreciate the total absence of any reference in Marx to the hypothesis that money must at any point become a non-commodity. Finally, my goal is to provide a clear exposition of what Marx's theory of money is, rather than engage in discussion regarding the extent to which his theory is the one which most accurately captures reality.

1 Marx defines money, the general equivalent of value, as a commodity

According to Marx, the exchange value of a commodity is merely the proportion in which use values of one sort are exchanged for those of

another sort (Marx 1867a: 13, 23).¹ The form of value is the theoretical name of the exchange value when the general equivalent, or money, is already present (Marx 1867a: 19; Marx 1880: 187, 202), which means that the latter is also a use value (i.e., a commodity). In effect, the three peculiarities of the general equivalent, presented by Marx, unequivocally define it as a commodity: 'the first peculiarity ... is this: use-value becomes the form of manifestation ... of its opposite, value'; 'the second peculiarity ... is that concrete labor becomes the form under which its opposite, abstract human labor, manifests itself'; 'a third peculiarity ... [is] that the labor of private individuals takes the form of its opposite, labor directly social in its form' (Marx 1867a: 23–5). There is ample textual evidence corroborating that this is Marx's consistent definition of money, briefly exemplified by the following:

Money ... the universal commodity – must itself exist as a *particular* commodity alongside the others ...
(Marx 1939: 165)

the universal equivalent form becomes identified with the bodily form of a particular commodity, and thus crystallised into the money-form. ... Commodities find their own value already completely represented, without any initiative on their part, in another commodity existing in company with them.

(Marx 1867a: 42)

Thus the essential condition of the equivalent form is to be a commodity, and hence this role can 'be assumed by any commodity'; however, after a long development, 'this foremost place has been attained by one [commodity] in particular – namely, gold' (Marx 1867a: 30; Marx 1939: 173–4). Therefore money, in the shape of gold, is the special commodity through which the ordinary commodities express their values, in relationships such as ' x commodity $A = y$ money commodity', the expression of the simple commodity form which is, according to Marx, 'the germ of the money form', exemplified in the price form of linen: 20 yards of linen = 2 ounces of gold (1867a: 30).

The opinion that money, the general equivalent of value, in Marx's theory, can also be something other than a commodity, or that, after having begun as a commodity, it can evolve into non-commodity forms (Foley 1986: 20; Lapavistas 1991), clashes with the complete absence of anything that would indicate such a position within Marx's work.² If Marx had

¹ Marx underlines the simplicity of the definition: 'The value-form, whose fully developed shape is the money-form, is very simple and empty of content' (Marx 1867b: 1). See section 2.1.

² For opposite assessments, see Reuten (1988: 127) and Saad-Filho (1997). Reuten and Williams (1989: 65–6), though recognizing that their 'conceptualisation of money diverges from ... Marx's own', claim that 'in Marx (1867) there is also ample evidence of a form-theoretic line of argument', but don't present it.

conceived of such an evolution, he would have been obliged to explain its phases as well as the conditions that provided for the transition from one phase to the next; there is, however, no reference to such a development in his work.³ The only demonstration of the nature of money to be found in Marx clearly assigns it the material character of a commodity. He nonetheless explicitly mentions the historical evolution of the sorts of commodities that fulfilled the role of equivalents, directed towards commodities with physical and chemical characteristics more and more compatible with the role of value equivalent, the latter having finally been fixed on the precious metals – the ‘last’ or ‘highest’ degree of adequacy to the role – and, among these, on the one that shows such characteristics to the highest degree, gold (Marx 1939: 165–6, 173–4; Marx 1867a: 39–40). When capitalism begins to develop, it ‘takes possession of metallic currency as an existing and ready-made instrument’ (Marx 1859: 153; Lapavistas 1991).

In effect, Marx maintains his conception of money as a commodity – and of gold as its final evolutive form – throughout his entire work, even after the analysis of the complex credit system of capitalism, in Part V, Volume III of *Capital*. There is no indication at all that he may have considered the forms of credit money – bank notes and deposits – as more developed forms of money itself. In evaluating his theory of value and money in one of his last writings, less than three years before his death, he sustains his concept of money as a commodity in its final instance: ‘in the development of the *value form of the commodity*, in the final instance its money form, and thus of *money*, the *value of a commodity* presents itself in the *use-value* of the other commodity, i.e. in its natural form’ (Marx 1880: 200).

Lastly, the fact that social labour – or value – should be represented in a commodity, money, is for Marx one of the inherent contradictions of capitalism, from which capitalists are unable to free themselves, notwithstanding their continuous efforts to do so. This opinion of Marx can be illustrated by the following passages from *Capital*, Volume III, Part V:

with the development of the credit system, capitalist production continually strives to overcome the metal barrier [money], which is simultaneously a material and imaginative barrier of wealth and its movement, but again and again it breaks its back on this barrier ... but it should always be borne in mind that ... money – in the form of precious metal – remains the foundation from which the credit system, by its very nature, can never detach itself ... The banking system shows ... by substituting

³ It is frequently argued that paper money and credit money are evolutive forms of money, in opposition to commodity money. However, in Marx’s theory they are consistently conceived of not as forms of money but as instruments of circulation derived from money, which represent it in the functions of means of circulation and of payment, respectively (Marx 1867a: ch. 3).

various forms of circulating credit in place of money, that money... as antithetical to the basis of private production, *must always appear in the last analysis as a thing, a special commodity, alongside other commodities.*

(Marx 1894: 574, 606, 607; emphasis added)

2 Marx's theoretical bases for commodity money

2.1 The measure of value must possess value

Up to this point, we have demonstrated that, in Marx's theory, money in capitalism must be a commodity which, in the role of a universal equivalent of value, provides the means through which all other commodities represent their values in a general material form that is separate from their particular use values, or natural forms of value (Marx 1859: ch. 1). Now it has to be shown why, for what theoretical reason, money must be a commodity according to Marx. There are two ways of demonstrating this, one being merely technical, based on the concept of measurement, and the other theoretical, based on the concept of social labour. The first is based on Marx's theoretically correct argument, illustrated through an analogy between the measure of the value of commodities and that of the weight of bodies.⁴ Just as the latter can only be measured by putting them in relation to the weight of a given body taken as an equivalent for weight,⁵ the measure of value requires a standard of measurement that has value, too (an equivalent of value), which is a characteristic belonging only to commodities. In effect, to weigh objects or to measure value consists precisely in relating two bodies/commodities that have weight or value, respectively, one of which functions as a standard (of weight or of value, respectively). The standards of weight and of value are both arbitrary amounts of a body and of the money commodity, respectively. In the case of value, denominating the amount of the commodity that is taken as standard as v , the value of a commodity containing x times v will be $xv/v = x$. As a relationship, it is just a number which expresses the amount of value standards contained in the measured object.⁶ If the pound sterling corresponded to ten grams of gold, then to say that a commodity is 'worth' five sterlings simply means that it contains five times the amount of value contained in ten grams of the standard commodity, gold; in other words, value is expressed in a simple quantity of

⁴ This analogy is not invalidated by the fact that the first is a natural and tangible process, while the second is social and not visible to the naked eye (Marx 1867a: 24).

⁵ 'Were they not both heavy, they could not enter into this relation, and the one could therefore not serve as the expression of the weight of the other' (Marx 1867a: 24).

⁶ 'Definite quantities of product, these quantities being determined by experience, now represent nothing but definite quantities of labour, definite masses of crystallised labour-time' (Marx 1867a: 91).

a thing,⁷ with no need of knowing the intrinsic nature of value, which can only be determined through research. It is just as unnecessary that the agents of exchange are conscious of the fact that prices represent abstract labour as it is that the grocer understands the theory of gravity (Marx 1867a: 2).

2.2 The social regulation of labour in a commodity economy requires that money be a commodity

Exchange must be based on equal social labour times

The theoretical demonstration of the need for money to be a commodity will be carried out in two steps. The first is based on the exposition of the internal logic of the market economy and the general concept of social labour as the basis of social life, initially proposed by Marx in *The German Ideology* (Marx and Engels 1845–46: ch. 1) and later developed in the *Grundrisse* (Marx 1939, Part I). We summarize it as follows: the basis of social life is social labour, understood as a complex organism of different forms of concrete labour that combine through the structure of the social division of labour, such that each producer supplies one or several products to the social collectivity, from which each person receives what he or she needs, in exchange. This social organism of labour is an objective entity, made up of a definite amount of labour time,⁸ which makes up the productive potential of a society and which has to be distributed among the existing branches of production according to the composition of the social needs.⁹ In these conditions, the reproduction of every given society depends crucially on the existence of a definite mechanism through which social labour and its products are distributed among individuals.¹⁰

⁷ '[A]s soon as the coat assumes in the equation of value, the position of equivalent, its quantity of value acquires no expression as quantity of value; on the contrary, the commodity coat now figures only as a definite quantity of a thing' (Marx 1867b: 37); 'In the function of money as measure, all values are in the first instance reduced to just different amounts of the measuring commodity. This is the case with the precious metals' (Marx 1980: 41); 'In general, the commodity in which the exchange value of another is expressed, is never expressed as exchange value, never as relation, but rather as a definite quantity of its natural make-up... The same is true of money as measure, as the unit in which the exchange values of other commodities are measured. It is a specific weight of the natural substance by which it is represented, gold, silver, etc.' (Marx 1939: 205–6).

⁸ 'If, e.g., the number of laborers is a million, and the average working-day of a laborer is ten hours, the social working day consists of ten million hours' (Marx 1867a: 149).

⁹ 'the masses of products corresponding to the different needs require different and quantitatively determined masses of the total labor of society. That this *necessity* of the *distribution* of social labor in definite proportions cannot possibly be done away with by a *particular form* of social production but can only change the *mode* of its *appearance*, is self-evident' (Marx and Engels 1988: 68, letter 11 July 1868).

¹⁰ '[No] form of society can prevent... its production from being regulated... by the actually existing time of labor' (Marx and Engels 1987: 514, letter 8 January 1868).

In non-market societies this mechanism consists of a previously determined plan of production (Marx 1867a: 173–4; 1939: 172–3). In market economies there must necessarily be an identical mechanism, which cannot, however, be a social plan, since the latter is incompatible with the independence of producers. Such a mechanism exists, but it goes unperceived by the agents of exchange, since it is an unplanned result of the chaotic clashing of their independent initiatives, behind which it is hidden (Marx 1867a: 48).¹¹ This mechanism is the law of value,¹² through which the theory reveals the fact that exchanges are based on the equivalence of values, which implies the equivalence of the social labour times contained in the exchanged commodities (Marx 1867a: 32). But the fact that the law of value, as expressed in ‘the money-form of the world of commodities’ and the continual fluctuation of prices, is the mechanism through which social labour is continuously distributed and re-distributed remains hidden to individuals, from which the mysterious nature of the process emerges (Marx 1867a: 33). This is Marx’s thesis, ‘held by a wide spectrum of writers from the “Hegelian” I. I. Rubin to the “anti-Hegelian” Althusser’ (Elson 1979: 124). Nonetheless, the practical way in which the law asserts itself is not examined, which is perhaps the reason for the rejection of Marx’s thesis that money must necessarily be a commodity, because it shows that it has not been understood that the mechanism of the distribution of social labour and its products in a market economy crucially depends on this condition.¹³ Marx’s demonstration of this matter follows.

It is first necessary to show that exchanges must be based on the equalization of the labour times contained in the exchanged commodities. Assuming that in a given market economy the subsistence of each one of its

¹¹ ‘[So] long as this regulation is not performed through the direct and conscious control of the society over its labour time – which is only possible by way of social ownership – [it will be performed] through the oscillation of the prices of commodities’ (Marx and Engels 1987: 514, letter 8 January 1868).

¹² ‘[T]he law of the value of commodities ultimately determines how much of its disposable working-time society can expend on each particular class of commodities’ (Marx 1867a: 174); ‘And the form in which this proportional distribution of labor asserts itself, in the state of society where the interconnection of social labor is manifested in the *private exchange* of the individual products of labour, is precisely the *exchange value* of these products’ (Marx and Engels 1988: 68, letter 11 July 1868).

¹³ Rubin (1928) can be taken as illustrative of the position of many Marxist authors about the subject. In his book, he appropriately stresses the problem of the social division of labour, but doesn’t attempt to depict the practical way in which money mediates the distribution of social labour (which he should have done since it is not obvious). Lipietz (1983) illustrates the opposite position, because he raises credit money to the condition of general equivalent without addressing the problem of the distribution of social labour. Even de Brunhoff (1976) failed to address it in her otherwise insightful analysis. For a defence of the compatibility of credit money with commodity money, see Germer (1997).

members requires, on average, commodities that result from ten hours of social labour, it follows that society affords each of its members the means of subsistence they need, which costs society ten hours of labour. Since each works for all and all work for each, this system means that each producer must work an average of ten hours a day to supply the resulting product to society,¹⁴ which must return to each person, in exchange, the set of means necessary for his or her subsistence,¹⁵ which is also the result of ten hours of social labour.¹⁶ Since this process occurs by means of exchanges, it is immediately evident that each producer must carry out an exchange between two amounts of commodities, both of which correspond on average to ten hours of socially necessary labour on each side: that is, the exchange must be based on the equalization of labour times.¹⁷ This simple example demonstrates that, theoretically, the market economy could only be in a state of equilibrium – understood as the balance of supply and demand for all commodities – if in all exchanges the labour times contained in commodities were equal. Obviously, such a balance can only be seen as a never-fulfilled tendency, since in a market economy ‘what is reasonable and necessary by nature asserts itself only as a blindly operating average’ (Marx and Engels 1988: 68, letter 11 July 1868). Marx illustrates his exposition of the concept of the value of labour power with an identical example, assuming that the satisfaction of the daily needs of a worker requires commodities produced in an average of six hours of labour time (Marx 1867a: 81–2). Consequently, each producer must exchange the product of six hours of daily labour for the consumer goods needed for his or her daily subsistence.¹⁸

¹⁴ If a producer worked less than ten hours, the social average would be less than ten hours and social reproduction would take place at a level below what is normal.

¹⁵ In this example capital is abstracted from, which does not affect the problem under analysis, as illustrated by Marx himself: ‘Let us suppose that the producers are all independent owners of their means of production, so that circulation takes place between the immediate producers themselves ... their annual value-product might then be divided into two parts, analogous with capitalist conditions ... Part a then represents the variable capital, part b the surplus-value’ (Marx 1885: 329).

¹⁶ ‘[I]f society wants to satisfy some want and have an article produced for this purpose, it must pay for it. Indeed, since commodity-production necessitates a division of labor, society pays for this article by devoting a portion of the available labor-time to its production. Therefore, society buys it with a definite quantity of its disposable labor-time. That part of society which through the division of labor happens to employ its labor in producing this particular article, must receive an equivalent in social labor incorporated in articles which satisfy its own wants’ (Marx 1894: 187).

¹⁷ The mediation with money does not affect this logic, since the ‘material content’ of C–M–C is ‘C–C, the exchange of one commodity for another, the circulation of materialised social labor’ (Marx 1867a: 48).

¹⁸ ‘Now since ... [the laborer’s] work forms part of a system, based on the social division of labor, he does not directly produce the actual necessities which he himself

However, exchange is not based on the calculation of labor time or on the exchange of the two sets of commodities – those that producers produce and those that they need for subsistence – in their entirety but through a series of smaller exchanges (Marx 1939: 199). The sum of the latter would not result in an overall equivalence if the exchanges were always carried out in pairs of commodities, since it would be impossible to relate the terms of each and every exchange with the global equivalence of ten hours pertaining to our first example.

On the other hand, each commodity is produced by various producers, under individual technical conditions that deviate, to a greater or lesser extent, from the average. Thus, the product of ten daily hours and the individual labour time per unit of commodity of each producer would hardly coincide, respectively, with the average production of ten daily hours within his or her branch of production and with the social labour time per unit. Accordingly, the total amount of labour time actually applied in the production of this commodity would only by coincidence correspond with the total amount of social labour time that society assigns for its production. It follows that the direct exchange between two producers would generally represent the exchange of different amounts of social labour, and there would be no mechanism to adjust the individual to the socially necessary labour times. Those difficulties could only be resolved, at first sight, if there were a bureaucratic means for determining the average time of social labour contained in each commodity, in such a way that producers would each receive, for whatever fraction of the product of ten hours of their labour, converted into social labour, an amount of some other product containing the same quantity of social labour and, for their daily total product of ten hours, the sum of products that they need, which would incorporate the same amount of social labour. But such a bureaucratic means cannot exist in a market economy, as has already been established.

However, since commodities must be exchanged on the basis of the equalization of the social labour times they contain, and since the individual labour times they contain diverge from the social labour times, there must of necessity be some means through which the social labour they contain can be expressed before exchange occurs (Marx 1939: 170–4). In other words, the commodities must be converted into expressions of social labour: that is, into something that represents the average amount of labour that society attributes to their production, which can be greater or lesser than the time actually spent by the producers of the exchanged commodities.

consumes; he produces instead a particular commodity, yarn for example, whose value is equal to the value of those necessaries or of the money with which they can be bought ... If the value of those necessaries represent on an average the expenditure of six hours' labor, the workman must on an average work for six hours to produce that value' (Marx 1867a: 104).

This conversion would give the producers an indirect indicator of their degree of deviation from the average social conditions for the production of their commodities, and of possible needs for adjustment. Thus the need to convert commodities into something that expresses the social labour they contain, in opposition to the labour actually applied in each individual case, presents itself as a demand pertaining to the internal logic of the system, without which there would be no way to correct the inevitable deviations that are due to the anarchic nature of mercantile production (Marx 1867a: 46). The comprehension of this internal logic is Marx's most original contribution to the theory of money, and enables us to understand why the exchange of commodities must be mediated by money, contrary to the simplistic explanation based on the difficulty of a 'double coincidence of want', and why money must be a commodity.

Individual labour is converted into social labour through exchange with (commodity) money

The second step of the theoretical demonstration consists of demonstrating the way in which the process expounded above is carried out in practice. Since commodities are produced by particular labours that do not directly represent social labour, they are not directly integrated into the social product. In a market economy a particular act of labour is not automatically equivalent to social labour, since each particular act of labour results from the initiative of a particular producer, instead of being determined by a social plan which guarantees in advance that the product is necessary for the satisfaction of a social need. Thus, if a producer makes a faulty evaluation of the market situation, that person's product may not be purchased, which means that the labour applied in its production is not a part of social labour and was therefore wasted. In the absence of a social plan of production that carries out a previous distribution of the socially necessary labor among producers, thus giving this labour previously its social character and dispensing with the need for social recognition a posteriori, it follows that in a market economy the recognition of the social character of labour can only occur after it has been carried out. However, it is impossible for the social nature of the product of a particular labour to be recognized by a bureaucratic agency before it is purchased, as in the case of Gray's labour chits, since in the absence of a social plan of production there is no basis for relating each product to a previously identified and designed need.

Under these circumstances, the only means through which a particular act of labour can be recognized as social is if its product is actually employed to satisfy a social need through consumption, and for this to occur it must arrive in the hands of the consumer, which in a market economy can only occur through exchange of this product for the product of another particular act of labour (Marx 1867a: 38). But the direct exchange of two products of particular labours does not turn them into social labours, because the

exchange between two producers characterizes a division of labour restricted to those two, not the social division of labour that is the basis of the market economy. In order for a particular act of labour to be recognized as social labour, its product must be exchangeable for the product of any other act of labour, not just one in particular, since the direct exchange for the product of another particular act of labour does not turn it into the product of social labour, but merely into the product of another particular act of labour (Marx 1867a: 38). However, all commodities are products of particular acts of labour; thus, all direct exchange of commodities is the exchange of particular acts of labour and does not provide the basis for the conversion of particular labours into social labour.

On the other hand, in a market economy exchange is the only means through which the product of a particular labour can be converted into something else. But the only thing it can be converted into is the product of another particular labour. Thus we come to an impasse: while on the one hand for social recognition it is not enough for the product of a particular labour to be exchanged directly for the product of another particular labour, on the other hand each product of a particular labour can only be exchanged for the product of another similarly particular labour.

Since at the same time there can be no social plan of production, the problem can only be solved within the strict sphere of the chaotic confrontation of independent producers through the exchange of their commodities, in a spontaneous way. In other words, in order to resolve the problem the very process of exchange must engender a mechanism that is compatible with the logic of private exchange, and independently of the perceptions of the process by the agents of the exchange, but which at the same time imposes itself upon them with the irresistible force of a natural law (Marx 1939: 196). The fundamental point is that, since each commodity is the product of a particular labour, but must be expressed as social labour, and since this cannot be done bureaucratically, it follows that before the commodity can be converted into the use value its producer is interested in, it must be converted into something that expresses the amount of social labour it contains. But the only thing a commodity can be converted into is another commodity.

Under these conditions, the impasse can only be resolved if there is a product of a particular labour that enters into circulation as the product of a labour that is directly social, so that products of particular labours can be exchanged for it. In so doing, the producers of these products of particular labours transform the latter into a product that represents social labour and that for this very reason is exchangeable for the product of any other particular act of labour.¹⁹

¹⁹ According to Marx, commodities can only be exchanged as equals (i.e., as products of social labour).

However, there is no such commodity, since all labour is particular labour. Nonetheless, the viability of the market economy depends on providing a solution for this impasse. The solution is spontaneously generated in the form of the product of a particular labour – a commodity – that is socially constructed as the direct representation of social labour.²⁰ Consequently, each product of a particular labour, in order to be recognized as a component of social labour, must be converted into this product of a specific type of particular labour that has become the representation of social labour.²¹ This product of a labour that is simultaneously particular and social is the money commodity, whose finished form in capitalism is gold.²² Money's specific trait lies in the fact that it is accepted by all in any exchange whatsoever; in other words, it expresses the general exchangeability of commodities. Thus, what the individual agents of exchange see in it is not its particular use value but its social use value as the form of the universal exchangeability of all commodities.

Thus we arrive at the most elementary and essential basis of the problem of money, which can be illustrated again by the hypothetical economy in which individual subsistence depends on a series of commodities that require ten hours of social labour for their production. But now we introduce the mediation of exchange with money. Since money is also a commodity, its production must guarantee the normal subsistence of its producer. This means that the production of gold resulting from ten hours of labour must be exchanged for the means of subsistence that its producer requires, which also cost ten hours of social labour. This establishes the exchange values or prices of the means of subsistence. Consequently, the daily product of ten hours of labour in the production of any commodity

²⁰ '[A]lthough, like all other commodity producing labor, [the labor that produces the general equivalent] ... is the labor of private individuals, yet, at the same time, it ranks as labor directly social in its character' (Marx 1867a: 25).

²¹ 'They cannot bring their commodities into relation as values, and therefore as commodities, except by comparing them with some one other *commodity* as the universal equivalent. ... But a *particular commodity* cannot become the universal equivalent except by a social act. The social action therefore of all other commodities, sets apart the *particular commodity* in which they all represent their values. Thereby the *bodily form of this commodity* becomes the form of the socially recognised universal equivalent. To be the universal equivalent, becomes, by this social process, the specific function of the *commodity* thus excluded by the rest. *Thus it becomes – money*' (Marx 1867a: 38, emphasis added).

²² This does not imply that gold has to personally function as means of circulation. The nature of money as the necessary representation of social labour is discussed in the abstract, i.e., abstracted from its different functions, in which it can be represented by instruments of circulation made up of different materials, like paper money, but that do not have an existence independent of money (Marx 1939: 167).

must be converted into the daily production of the money commodity – gold – which is the product of a particular labour that has become the representation of ten hours of social labour.²³ By means of this conversion, any producer is able to guarantee his or her normal subsistence, since this same quantity of gold guarantees, via exchange, the normal subsistence of the gold producer.²⁴ Thus, when a commodity is exchanged for a definite amount of the money commodity and the latter is, in turn, exchanged for a definite amount of another commodity, this means that both commodities have been equated to the same amount of a third (the money commodity), and therefore have been converted into expressions of the same amount of social labour, which is that contained in the amount of the money commodity of which they have become equivalent (Marx 1939: 142–3). In other words, the exchange has been based on the equalization of the social labours contained in the two commodities. Assuming, for the purpose of illustration, that the daily production of gold is 20 grams per worker, every producer of any commodity will have to obtain, for their daily individual production, a price corresponding to 20 grams of gold, which they need for subsistence. Upon doing so, and without the need of knowing what is going on, they will be realizing the equivalence of their particular labour and that of social labour represented through the daily production of gold. Thus the production of the money commodity is at the centre of the hidden social mechanism that, in a market economy, promotes – however chaotically – the distribution of labour and its products, so that the reproduction of its individual members and therefore of the society as a whole can occur. Through the conversion of the product of each producer's labour into gold the producer of any commodity converts it not only qualitatively into the representation of social labour, but also quantitatively into the amount of gold he or she needs for daily material reproduction. The fact that only a commodity can do this job in a market economy is the reason why money needs to be a commodity. In this way the whole mystery of money is solved!

It is neither necessary nor possible to count the hours of labour actually performed in order for the equivalence of labour times to be verified, or that the producers of commodities be aware of this basis of the exchange,

²³ 'Thus an exchange value which is the product of, say, one day is expressed in a quantity of gold or silver which = one day of labor time, which is the product of one day of labor' (Marx 1939: 188).

²⁴ The amount of gold produced in a day is irrelevant. The determining element is the average labour time needed for the production of the means of subsistence of each producer. Thus, whatever the average amount of gold produced in a day, it is exchanged for the bunch of goods that the producer must consume. The only effect of a variation of the quantity of gold produced is the change of the exchange value or price of common commodities as expressed in the equivalent commodity.

although it is their own action that corrects deviations. Correction is carried out through the reaction of every producer to the oscillations in their ability to reproduce themselves as producers, based on the exchange of each producer's product. If it proves insufficient for normal reproduction, the producers interpret this as the result of 'too low a price' of their commodity, ignoring the fact that this results either from their expenditure of more than the average social labour time per unit, or from the excess of producers in that branch of production. In their attempt to increase productivity or move to another branch of production the producers correct, albeit without their awareness, the maladjustment between their particular labour and social labour time (Rubin 1928: 103).

Is it possible, on the basis of the labour theory of value, for a non-commodity, such as paper money, to perform the function of equivalent of value? For the reasons already presented, it would have to represent a definite amount of social labour, into which the ordinary commodities must convert themselves in order to be exchanged. Since it is not a commodity, however, it does not have value of its own, which is necessary if paper money is to serve as the measure of value. This is a problem shared by all 'paper-money interpretations' of Marx's theory of money, and no one has so far offered a consistent solution for this.

3 Conclusions

It has been shown, on the basis of consistent textual evidence, that Marx explicitly maintained the concept of money as a commodity in the analysis of capitalism in the most advanced stage of its development. The analysis presented provides the explanation of why this is so. The reason is that money derives specifically from the mercantile nature of the economy (i.e., from the nature of the sphere of circulation) and not from its capitalist nature (i.e., the nature of the internal constitution of the units of production) which therefore does not affect the nature of money. Whatever the nature of the latter, what is determining is the fact that, although being juridically independent of one another, they depend on one another for their material reproduction. Therefore, the labours they perform are particular labours that have to be converted into social labour, and the absence of a social plan of production able to consciously articulate their material interdependence requires that the particular labour applied to the production of the particular commodity produced by one of them be converted, in the shape of its product itself, into the representation of social labour. The fact that the product of each unit is divided between capitalists and workers, and that the part that belongs to the capitalists is in its turn divided among them according to a uniform rate – the average rate of profit – does not affect the cause that originates money and requires that it be a commodity.

This chapter arrives at the following significant conclusions regarding Marx's theory of money:

- 1 The requirement that exchanges must be based on the equalization of social labour times, as an indispensable condition for the existence of a market economy, is theoretically consistent.
- 2 Examination of Marx's work shows that, without a doubt, he conceives of money in capitalism as a commodity.
- 3 In order for exchanges to be based on the equalization of social labour times, they must necessarily be mediated by a commodity that functions as a universal equivalent of value.
- 4 Finally, money must be a commodity as a consequence of the logical structure of Marx's theory and for no other reason.

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2

Marx's Theory of Money in Historical Perspective

*Duncan Foley*¹

1 Introduction

After being largely neglected by Marxist scholars in the first two-thirds of the twentieth century, with some exceptions such as Rubin (1972), Marx's theory of money has been the subject of a substantial number of books and articles in the last 35 years. Among others de Brunhoff (1976), Foley (1983), Arnon (1984), and Itoh and Lapavistas (1998). This work shows that the theory of money is an indispensable part of Marx's theory of value, and among the most original aspects of Marx's economics.

Marx derives the money form of value from the theory of the commodity as a unity of use-value and exchange value, and shows how a particular produced commodity (such as gold) will emerge as the socially accepted general equivalent, which functions as a measure of value for all other commodities. Since Marx regards labour as the substance of value, the money commodity also expresses abstract social labour in commodity exchange. From this starting point Marx is able to provide a coherent account of the whole range of monetary phenomena known to his period, including the circulation of paper money, the valuation of inconvertible paper money, the circulation of worn specie coins, the laws of circulation connecting the quantity of circulating money to the prices of commodities circulated, hoarding, and, ultimately, the role of money as money capital. This theory also provides a coherent and satisfactory foundation for the theory of interest as a form of surplus value and credit. (See Marx 1867: Part I; Marx 1973, the chapter on money; and Marx 1859 for Marx's complete development of this theory.)

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This chapter addresses two issues that are still unresolved in contemporary discussions of Marx's theory. The first is the relation between abstract social labour and money and the measurement of the 'value of money' or 'monetary expression of labour time' (the abstract social labour time expressed by a unit of money). The second is the problem of adapting Marx's theory of money to contemporary monetary systems in which the debts of states (expressed as dollars, pounds, euros, or yen, for example) function as the socially accepted general equivalent rather than a produced commodity.

2 Labour and money in Marx's theory of value

In empirical applications of Marxian theory (e.g., in Sraffian studies using Leontief's input-output data), 'labour' is identified with measured labour time, unadjusted hours of employment. This practice is acceptable and even probably inescapable in applied work, but it distorts Marx's full account of the relation between money and abstract social labour.

Marx takes up this issue at length in the *Grundrisse* (Marx 1973, the chapter on money). The motivation for Marx's discussion is his critique of the 'Ricardian socialists', Bray and Gray, who argued for replacing gold with a labour-based money. The idea was that when someone expended labour effort, that person should receive a certificate representing that quantity of labour time, which could then be exchanged for a proportional part of the social product. In this scheme labour certificates would take the place of money as the means of circulating commodities and supporting the social division of labour.

Marx objects to the labour-certificate plan on the grounds that it short-circuits an essential function of the commodity system of production. The actual sale of commodities for money tests the validity of the expectation that any particular labour expended is indeed social and necessary labour. It is only after sale that the social and necessary character of the labour expended in producing a commodity is guaranteed. The commodity producer produces the commodity on a speculation that the market will validate the social and necessary character of that labour.

Marx argues that the labour-certificate reform would work only if labour were 'immediately' social in production, so that the labour certificate could be a simple acknowledgement that social and necessary labour had been expended. But this would be possible only if the social and necessary character of the labour were guaranteed in production itself, independently from the market sale of the commodity. This guarantee could be achieved only in a system where production itself is socially rather than privately organized. The labour-certificate issuing bank would have to organize production on a social basis to begin with. The apparently innocuous labour-certificate reform would require a complete socialization of production, not just the issue of labour-certificates.

The implication of these observations is that 'abstract, social, necessary labour' which is the 'substance' of value emerges jointly with the expression of exchange value in the pricing of commodities in terms of money. There is no general *ex ante* method of measuring the abstract, social, necessary labour expended in producing commodities independent from the whole process of exchange of commodities mediated by money. Marx himself sums this up in the *Contribution to the Critique of Political Economy*:

the different kinds of individual labour represented in these particular use-values, in fact, become labour in general and in this way social labour, only by actually being exchanged for one another in quantities which are proportional to the labour-time contained in them. Social labour-time exists in these commodities in a latent state, so to speak, and becomes evident only in the course of their exchange. The point of departure is not the labour of individuals considered as social labour, but on the contrary, the particular kinds of labour of private individuals, *i.e.*, labour which proves that it is universal social labour only by the supersession of its original character in the exchange process. Universal social labour is consequently not a ready-made prerequisite but an emerging result. Thus a new difficulty arises: on the one hand, commodities must enter the exchange process as materialised universal labour time, on the other hand, the labour-time of individuals becomes materialised universal labour-time only as the result of the exchange process.

(Marx 1859: 45)

This point (which has been emphasized by de Vroey 1981 among others) sweeps away the whole range of objections to the 'labour theory of value' based on the observation that it is impossible to aggregate many different kinds of labour into a single index of abstract social labour time, just as it is impossible to aggregate apples and oranges. (This objection is developed by von Böhm-Bawerk 1890, Book VI, ch. III.) Marx uses the terms 'particular kinds of labour of private individuals' or, in *Capital* 'concrete labour' to describe the variety of real-world labour. In commodity exchange these concrete labours are equalized through the establishment of prices for the commodities they produce. No *ex ante* weighting of different types of labour to create a single empirical measure of social labour time is part of Marx's theory of value at this level of abstraction.

The objection of adherents of the rational-empiricist philosophy of science to this statement of the labour theory of value is that it turns the theory into a tautology. Marx himself says:

Since the exchange-value of commodities is indeed nothing but a mutual relation between various kinds of labour of individuals regarded as equal and universal labour, *i.e.*, nothing but a material expression of a specific social form of labour, it is a tautology to say that labour is the *only* source

of exchange-value and accordingly of wealth in so far as this consists of exchange-value.

(Marx 1859: 35)

Marx conceptualizes problems through a sequence of more and more concrete determinations (see Marx 1973: Introduction). The problem of recovering social labour-time from data on the prices of produced commodities involves working back through these layers of determination.

3 Measurement issues

Is it appropriate to attempt to quantify the relation between social labour-time and money given the complex, *ex post* nature of that relation in theory? Marx himself does give a quantitative significance to the relationship, regularly assuming for the sake of examples that a shilling expresses so many hours of social labour-time.

The fundamental motivation behind this measurement is the implicit argument that a socialist mode of production could organize social labour as effectively as capitalism while eliminating the exploitation of labour. The translation of monetary macroeconomic aggregates into social labour time expresses this vision concretely. There are objections to this argument connected with the points Marx raises in his critique of Bray and Gray. Capitalism supports a social division of labour through a historically and institutionally specific mode of production. Any other mode of production would shape a *different* social division of labour. This observation calls into question the relevance of comparing social labour-time in capitalism with the social labour-time that might emerge under socialism.

Another reason for being interested in the quantitative relationship between money prices and social labour-time is the belief that social labour-time regulates or determines money value aggregates. The theory of value outlined in the last section does not completely support this idea, since it emphasizes the simultaneous emergence of social labour-time and the expression of exchange value in terms of money, a process in which it is impossible to identify one or the other pole as the ultimate determining factor. On the other hand, it is reasonable to suppose that the social organization of production evolves on a slower time scale than the formation of money prices, so empirical measures of social labour-time will be more stable than empirical measures of value added. Thus there is some political economic insight to be gained from considering the quantitative relationship between empirical measures of money value added such as Gross (or Net) Domestic Product (GDP) and empirical measures of social labour-time.

The central issue in using quantitative measures is to get some insight into limits to the rate of exploitation and therefore the magnitude of surplus value that a capitalist economy might generate. This type of analysis is the foundation for answering questions connected with the rate of profit in

capitalist economies. The wage share in GDP expresses (*ex post*) the proportion of 'paid' labour-time in a capitalist economy. The 'monetary expression of labour-time' (MELT), the ratio of money value added to total social labour-time, decomposes into indices of price change and labour productivity:

$$m = \frac{PX}{N} = \frac{PX}{X} \frac{X}{N}$$

where m is the MELT, P is a price index such as the GDP deflator, X is the index of 'real' value added corresponding to the price index, and N is some empirical measure of social labour-time. The importance of labour productivity in capitalist economies lies in the fact that the 'real' (use-value) wage plays a key role in the class relations between workers and capitalists.

The measurement of value added (PX) raises interesting problems (see, for example, the discussion in Shaikh and Tonak 1994), but conceptually value added measures are already expressed in money prices. The measurement of social labour time (N), however, raises more fundamental issues of aggregation because labour-time takes qualitatively diverse concrete forms. Exchange value is a one-dimensional quantity, but the commodities themselves as use-values, and the labour that produces the commodities, are qualitatively varied. How does social exchange equate seeming incommensurables?

Marx suggests two complementary approaches to the measurement of social labour time (as distinct from its determination together with prices as discussed above). The first is to 'reduce' labour to a common denominator, 'uniform, homogeneous, simple labor' (Marx 1859: 30). (In a footnote on p. 31 Marx equates simple labour to unskilled labour.)

But what is the position with regard to more complicated labour which, being labour of greater intensity and greater specific gravity, rises above the general level? This kind of labour resolves itself into simple labour; it is simple labour raised to a higher power, so that for example one day of skilled labour may equal three days of simple labour.

(Marx 1859: 31)

Thus each concrete individual labour should have a skill weight attached to it, and the weighted sum of the individual labours will be the quantitative measure of social labour-time. This seems straightforward enough conceptually, but leaves some questions unanswered. For example, Marx seems to regard simple labour as fungible between sectors of production, so that 'any average individual' can be shifted from one line of production to another with no change in total social labour-time. But some difference in social labour may adhere to the sector of production. If mining is inherently more dangerous than weaving, an hour of mining might produce more value added than an hour of weaving. The exchange process 'practically'

equates the labour-time of miners and weavers, but finding the appropriate weights remains a problem for an econometrician who wants to estimate an index of social labour-time. This Marxist econometric problem overlaps with neoclassical labour economics, which also faces the problem of reducing qualitatively diverse labour to a single index.

One method is to use weights based on the personal characteristics of workers, such as education, age or experience. The data necessary to find these weights may, however, be hard to come by and common experience suggests that the correlation of formal worker characteristics with productivity may be weak.

Another method is to use weights proportional to the wages of individual workers. The use of wage weights amounts to the assumption that labour of different qualities is all subject to the same rate of exploitation. This is a tempting approximation for empirical work (though there is a danger of circular reasoning if someone uses wage-weighted measures of labour inputs to test hypotheses about the rate of exploitation of different types of labour).

Marx also outlines a second approach to the measurement of social labour-time:

The labour of an individual can produce exchange-value only if it produces *universal equivalents*, that is to say, only if the individual's labour-time represents universal labour-time or if universal labour-time represents individual labour-time. The effect is the same as if the different individuals had amalgamated their labour-time and allocated different portions of the labour-time at their joint disposal to the various use-values.

(Marx 1859: 32)

This approach regards social-labour time as a 'dose' of all the qualities of labour in fixed proportions. It amounts to the assumption that different qualities of labour are present in the same proportions in all sectors of production, but leaves open the question of whether different qualities of labour are subject to the same rate of exploitation. (The rates of exploitation of different qualities of labour in this framework are indeterminate, since the imputation of value added to the particular kinds of labour in a dose of labours of different qualities is arbitrary.) This method leads to estimating the MELT as the ratio of a measure of value added to the number of employed workers or to unweighted total labour time.

The econometric method of measurement of social labour-time is a pragmatic issue. What are we going to use this measure for? If we are interested in measuring the rate of exploitation of labour over time in one country, quality weights of labour may not be relevant. If we are interested in the degree to which international foreign exchange markets equate social labour across different countries, some adjustment for the quality differences in

labour between countries is unavoidable. As always in econometric research, data availability and cost are central issues. Where more accurate weighting of different types of labour cannot be achieved with available data or only through time-consuming manipulation of data, a simpler but more robust estimate of social labour-time may be the best we can do.

4 Contemporary monetary systems

In Marx's theory of money a produced commodity – for example, gold – becomes the socially accepted general equivalent. The emergence of a general equivalent is a spontaneous, decentralized phenomenon that accompanies the development of the commodity form. Currencies issued by states inherit their value from the money commodity, through the *standard of price*, which defines the state currency unit as a certain quantity of the money commodity. (For example, the US Congress in 1790 defined the dollar as one-twentieth of an ounce of gold.) The effective convertibility of the currency (through a full-weight specie coinage or the free exchange of paper money for bullion at the standard of price) ensures that the currency prices of commodities reflect their gold prices.

Marx's theory of money describes a system that was only coming into being at the time that he wrote. When Marx was developing his theory of money in the 1850s, the gold standard was far from securely established. Convertibility of national currencies into gold was fragile (witness the departure of the USA from the gold standard at the onset of the Civil War), and important parts of the world maintained silver standards or bimetallic systems.

While something like the system of world money based on a universal money commodity Marx describes did operate from around 1870 to the outbreak of the First World War in 1914, it deviated from Marx's theoretical picture. The pound sterling played an asymmetric role in the system, which was more a 'sterling exchange' standard than a gold standard. International currency adjustments during this period were often accomplished by sterling credit transactions and the manipulation of the British discount rate rather than through movements of gold.

In the twentieth century the evolution of the world monetary system took a turn that Marx did not anticipate, as national currencies severed their convertibility into gold. This institutional change was marked by an increase in the vulnerability of national currencies to chronic inflation, and eventually by an evolution of central banking towards 'inflation targeting' with important ramifications for the political economy of world capitalism. The inconvertibility of national currencies into gold, however, made remarkably little difference to the day-to-day functioning of markets and credit. Prices of commodities continued to be set in terms of national currencies, especially the dollar, which appears to function as the measure of value, means of

payment, and, to a considerable degree, world money. (See Eichengreen 1998 for a history of world monetary institutions.)

The monetary expression of labour time and the analysis of the origin of surplus value in the exploitation of labour can be applied transparently to monetary systems based on inconvertible national currencies. What is left hanging theoretically is the determination of the value of national currencies, particularly the value of the US dollar. In Marx's theory the same forces determine the relative price of the money commodity to other commodities as determine prices generally, namely costs of production and the average profit rate. The gold prices of commodities vary over time because of uneven technical progress in the production of gold and other commodities, but are determined at any moment in time. National currencies inherit this determinate value through the standard of price and their convertibility into gold. With the disappearance of this institutional link, however, we seem to be left with no Marxist theory of the commodity value of national currencies, a lacuna that makes itself sorely felt in a world in which struggles over inflation and the value of national currencies play a central political economic role.

While this abstract theoretical issue remains unresolved, the history of world capitalism since the demise of the gold standard presents a pretty clear picture. One element in the evolution of the value of the dollar has been the attempt of commodity-sellers to peg their dollar prices. For example, in the 1960s and 1970s in advanced capitalist countries, labour unions set strategic money wage targets. Oil producers also set dollar price targets. A second element has been the power of central banks to control credit availability, and hence to influence asset prices and production financing. 'Permissive' central bank policy in some countries adjusted credit availability to the demands of labour unions and OPEC (Organization of Petroleum Exporting Countries), tending to erode rates of surplus value when capitalist firms could not pass on higher money wages and energy costs to buyers. In the late 1970s a revolt of rentiers (see Duménil and Lévy 2003) forced a more confrontational and combative stance on central banks, in the form of 'inflation targeting' policies. Central banks create credit stringency to frustrate the setting of money wages or oil prices at levels incompatible with relatively low rates of inflation. The result has been a fall in inflation, a rise in rates of surplus value, and a shift of surplus value from industrial capital to financial capital. To call this monetary policy 'inflation targeting' obscures its effects on the rate of surplus value and the rate of profit; it might more accurately be described as 'surplus value targeting' in Marxist terminology.

In less advanced capitalist economies the exchange rate has been the crucial mediating factor between money wage and commodity price setting and central bank policies. In these countries a central issue in foreign exchange rate policy has been the relative impact of exchange rates on the value productivity of labour and the value of labour power.

Theories of this epoch of monetary political economy have been developed extensively in the New Keynesian macroeconomic literature, and also by Sraffians who see central banks as being able to set the rate of profit, and hence the real wage along the real wage–profit curve (see, e.g., Panico 1988; Pivetti 1991). These useful insights into monetary institutions, policy and political economy, however, have not been well integrated into the Marxian theory of money. In the interests of working to connect these two literatures, the remainder of this chapter will be devoted to a discussion of the contemporary monetary institutions within the framework of Marx's theory of money.

5 State credit money

Neoclassical monetary theory represents 'fiat' money as a bubble, a worthless token whose value is sustained by belief in its future acceptability. This is the point of various models of money as an unconsumed good that solves the double-coincidence of wants problem (see, e.g., Kiyotaki and Wright 1989). These theories all depart from Marx's theory in regarding money as valued because of scarcity (rather than because it has a production cost).

The relevance of this neoclassical vision to real-world monetary systems is doubtful. The central confusion is the idea that because cash (central bank notes and reserves) is a means of payment, the value of cash arises from the scarcity of means of payment. But there are close substitutes for cash as means of payment (treasury bills, the very secure liabilities of large banks and firms, and so on) which have high interest elasticity of supply. Furthermore, while the *stock* of cash is relatively fixed, its velocity of circulation in relation to the flow of payments is highly variable and in some contexts effectively unbounded (as a look at the velocity of reserves of large New York banks shows). Thus the picture of an inelastic demand for means of payment encountering a relatively fixed supply of cash as an explanation for the value of cash is off the mark.

In formal terms cash is a *liability* of the central bank, and the holders of cash are *lending* to the central bank (or, more broadly, the state). It is counterintuitive to regard the value of money as being sustained by the central bank's limiting its borrowing, but this is what the scarce cash theory of the value of money seems to imply. Cash is widely accepted as a means of payment, which creates the illusion that cash is a 'claim' on resources. But to theorize on this basis is to invert the real relationships involved.

The ability of states (and central banks) to borrow rests on their holdings of offsetting assets. Every government has an asset in the tax liabilities of the public. (For some governments there are other important assets, such as land or natural resource reserves. The stability of the USA's finances owes much to its ownership of vast land reserves, for example.) It is not true that a central bank note is a valueless token which is inconvertible into anything of value. As a liability of the government it can be used to pay taxes.

A better starting point for understanding contemporary monetary systems is the valuation and management of the state debt. The dollar is not a name for scarce cash tokens, but the unit in which the debt of the US government is denominated. Debts of the state are the measure of value and means of purchase and payment.

Marx has a well-worked-out theory of the valuation of government debt as *fictitious capital*. Marx explains (Marx 1894: Part V) that interest is a part of surplus value claimed by the owner of money who lends to a producing capitalist. Competition among lenders and borrowers enforces a uniform rate of interest (adjusted for risk and other specific aspects in individual loan contracts). This uniform rate of interest creates the impression that interest is an inherent property of money, and any money holder subjectively incurs an opportunity cost equal to the uniform rate of interest. This appearance inverts the real relation underlying interest flows, the appropriation of surplus value from the exploitation of workers.

Loans to productive capitalists are 'real capital'; they are part of the money capital committed to the circuit of capital to finance production. But once a uniform rate of interest has emerged, any recurring flow of income will be 'capitalized' at the rate of interest. For example, the rent of land, which is another part of surplus value, is capitalized into a price of land, even though land cannot be produced. Once equity stock has been issued by a capitalist corporation it represents a claim on dividends, and its value is a capitalization of the anticipated flow of dividends. The value of existing stock traded in this way is largely fictitious capital, and bears only a very loose relation to the value of the corporate assets that it legally represents.

Governments in capitalist societies generate recurring revenue flows through taxation. These flows are capitalized through the issuance of government debt, which promises the holder a flow of interest income (financed out of tax revenue). The resulting value of the government debt corresponds to no real capital investment, and hence is a fictitious capital.

The fact that cash liabilities do not pay explicit interest tends to mislead monetary analysts into regarding the value of cash as arising in a different way from the value of interest-bearing government debt. But the fact that cash liabilities pay no explicit interest is not an inherent property of cash itself. It reflects the policy of governments to contrive a situation in which the *convenience yield* of cash liabilities equals the interest that would have to be paid to sustain their value if they were less liquid. (In contemporary monetary systems the convenience yield of cash government liabilities is bolstered by a variety of legal prohibitions, as well: see Sargent and Wallace 1982. For example, in the USA, the government maintains a legal monopoly of the issuance of demand notes by taxing bank notes issued by private banks.) The value of cash liabilities is a fictitious capital just as much as the value of interest-bearing government debt.

Since the near-substitutes for cash are not perfect substitutes, at least in the short run, central banks have market power over the interest rate differentials between cash liabilities (which pay no explicit interest) and near substitutes such as treasury bills, commercial paper, and large certificates of deposit issued by major banks. Monetary policy rests on this power. As the central bank changes the quantity of cash available through open market operations, for example, the convenience yield of cash relative to close substitutes changes. The market registers this change by altering the nominal rate of interest of close cash substitutes. (See Foley 1988 for a more detailed account of this view.)

In contemporary economies, then, a fictitious capital, the liability of the state, rather than a produced commodity, functions as the measure of value. The loose theoretical end in this argument is what determines the value of the currency units (in terms of social labour or commodities) in which the liabilities of the state are denominated. This problem is common to Marxist and neoclassical monetary theory. The value of state liabilities and assets are uniformly homogeneous in the value of the currency unit. (This point is often made analytically through the thought experiment of a currency reform which simply renames the currency unit.) Any theory of the value of currency boils down to an assumption of some institution that breaks this homogeneity. In Marx's theory the homogeneity is broken by the standard of price, which fixes the value of the national currency in terms of a produced money commodity.

This perspective raises deep questions about the relation between the state and capital in contemporary capitalist economies. Is it purely a matter of historical accident that the liabilities of the state have come to play the role of measure of value for the world of commodities? After all, there is no real obstacle to the spontaneous re-emergence of gold or petroleum as a *de facto* measure of value and world money. The current situation suggests a remarkable symbiosis between capital and state, and calls for a unification of the Marxian theories of money and the state.

6 Marx's theory of money in contemporary perspective

Marx theorizes in order to understand. Marx's theory of money is necessary to understand how capitalist economies reproduce themselves. Money is an indispensable link between the commodity and value and the exploitation of labour in a capitalist economy.

There is something disorienting in the realization that a key part of Marx's theory of money, the derivation of a commodity-money, does not correspond to the historical and institutional realities of contemporary capitalism. Is the theory wrong in some fundamental sense? Or is our reading of capitalist reality defective?

One response to this dilemma is to affirm the *logical* coherence of Marx's argument by affirming that money 'must' be a commodity in Marx's theory

[see, e.g., Germer 2004]. The argument that Marx's logical derivation of the universal equivalent commodity is sound is persuasive, but runs directly up against the observation that neither gold nor petroleum (nor, indeed, any other produced commodity) actually serves as a socially accepted general equivalent in today's capitalist world. It is possible to 'save' the commodity-money theory by, for example, regarding current world monetary institutions as a 'suspended' commodity-money system, in which the standard of price has become inoperative 'temporarily' (but perhaps indefinitely). Certain legal and institutional facts could be adduced to support this view. The USA still values its gold reserves at a standard of price rather than at market prices on paper, and the reluctance of national governments to sell their gold reserves suggest that they regard gold as more than just another commodity. But it is difficult to argue for the actual influence of a suspended standard of price on real economic and financial relationships. For instance, why did the implicit gold prices of commodities fall so drastically after the USA suspended the convertibility of the dollar into gold in 1971?

Marx's method does not have the axiomatic character the commodity-money argument seems to presuppose. When Marx shows how money as an independent expression of exchange value is 'inherent' in the commodity form, he argues from what actually has happened in history. The idea that what actually has happened has a privileged position in a system of thought is a major theme of Hegel (1975). For Hegel the 'necessity' of what actually occurs embraces but goes beyond the purely logical necessity of deduction. Hegel identifies deductive inference with the limited realm of 'understanding', which uncritically accepts the elements it observes as undifferentiated unities. Hegelian necessity is deeply bound up with the actual evolution of history and institutions, and acknowledges that pure thought, in aspiring to reproduce history, inevitably fails to anticipate historical evolution accurately. The rational-empiricist adherents of the realm of understanding condemn Hegelian analysis because it offers no self-guarantee of correctly anticipating future developments. While rational-empiricist arguments appear to contain this kind of self-validation (since if the laws governing the system and the elements constituting it do indeed remain invariant, it is possible to work out the evolution of the system), rational-empiricist theories in fact have no better track record of anticipating the evolution of complex systems like human society than Marx or Hegel. Thus we should not be surprised to find that monetary institutions have evolved away from or beyond Marx's commodity-money theory.

We can better understand the emergence of particular produced commodities as socially accepted general equivalents as a stage in the evolution of the money form. But this evolutionary process continues. The developments through which the functions of money have been transferred to fictitious capital in the form of state credit are firmly grounded in the forms of credit and inconvertible paper money that Marx's theory explains successfully. Since

state credit, like land and other fictitious capital assets, is exchanged against produced commodities (though it is not a produced commodity) there is no formal inconsistency in viewing it as a general equivalent or socially accepted general equivalent in the framework of Marx's theory of forms of value.

This line of thinking preserves the integrity of Marx's theory by extending it to embrace new historical institutions. It does leave a loose theoretical end in removing the production price of the money-commodity as a determinant of the monetary expression of labour time, but even in the commodity-money theory this determinant operates only gradually over the long period. It also presents a picture of the world monetary system in which one national currency must take over the functions of world money, rather than a single produced commodity functioning as world money. As we have seen, the predominance of one national currency was already a feature of the functioning gold standard in the 1870–1914 period. It is quite plausible that competition between major national (or regional) currencies for the functions of world money will be an increasingly salient feature of world political economy in coming decades.

This approach treats contemporary monetary systems through an elaboration and extension of Marx's theory to account for a new form of socially accepted general equivalent, just as Marx's theory of credit elaborates and extends his theory of money to embrace new forms of the medium of circulation and means of payment. An effort to 'fit' contemporary monetary institutions into the analytical categories we have received from Marx – for example, by insisting on a continued role for gold as the socially accepted general equivalent commodity – fails to address the real challenge to Marxian monetary theory, which is to understand the innerness of world monetary institutions and the way they express class relations on a world scale.

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3

Money as Displaced Social Form: Why Value cannot be Independent of Price

Patrick Murray

Mediation must, of course, take place.
(Marx 1939: 171)

Money may be a mirror in which the value of a commodity is reflected, but Marx's theory of money is a window on to what is most distinctive about his theory of value and his critique of political economy. Widespread misconception holds that Marx adopted the classical (Ricardian) labour theory of value and then drew radical consequences from it in his theory of exploitation: surplus value is expropriated surplus labour. For Marx, value was strictly a 'social substance', a 'phantom-like objectivity', a congealed quantity of 'socially necessary' 'homogeneous human labour' of a particular social sort: namely, privately undertaken labour that produces goods and services for sale. Value necessarily appears as money. But, for the classical theory, labour of whatever social sort was the source of value, and money was an afterthought, a 'ceremonial form' Ricardo called it, the answer to a merely technical problem. The radical Ricardian Thomas Hodgskin pushed this approach to the limit, expelling money from economic discourse:

Money is, in fact, only the instrument for carrying on buying and selling and the consideration of it no more forms a part of the science of political economy than the consideration of ships or steam engines, or of any other instruments employed to facilitate the production and distribution of wealth.

(Marx 1859: 51 n.)

This way of thinking about money – money is a clever invention to facilitate barter – stretches back to Aristotle, and it remains the commonplace view.

According to Marx, this conception of money is deeply mistaken. Understanding why gives us a window on what is wrong with the classical labour theory of value and leads us to the most profound error of economics, its failure to make the specific social form and purpose of needs, wealth and labour ingredients of its theory.¹

According to Marx, value and money are inseparable yet not identical: without money there can be no value, yet money is not value. Marx's thesis of the inseparability of value and money overturns the classical theories of value and money and establishes new concepts governing the theory of price. These new concepts rule out the ordinary assumption of price theory: namely, that value is the independent variable that explains the behaviour of price, which is conceived to be the dependent variable.

Marx gets to this idea of the inseparability of value and money because he addresses the question, 'What is money?' Marx's perplexing answer to this question exceeds the discourse of economics: *money is the necessarily displaced social form of wealth and labour in those societies where the capitalist mode of production dominates*. This concept of money is not available to economics because economics understands itself as a general science; consequently it vacillates, either altogether excluding specific social forms of need, wealth and labour, or including them under the false pretext that they are general. Marx's concept of money is not just substantively perplexing to economics; it is methodologically, even metaphysically, perplexing because it challenges the nominalistic empiricism underlying economics, a philosophy that has no truck with social forms, much less with their power (formal causality). Marx's answer to the question, 'What is money?' tells us why money and value are inseparable yet not identical. It gives us that window on the fundamental difference between Marx's theory of value and the classical one, and on what is fundamentally wrong with economics. If money is the necessary manifestation of the specific social form of labour and wealth in a capitalist society, then to conceive of labour and its products in a capitalist society as independent of money is to imagine that labour and wealth can exist without any specific social form. Herein lies the root of the problem with conventional value and price theories: their assumption that value and price are independent and dependent variables, respectively, presumes that human needs, wealth and labour can exist without determinate social form, whereas they cannot.

Closely related to Marx's fundamental critique of economics for failing to make specific social forms of production and wealth ingredients of any inquiry into material production is his criticism of economics for failing to grasp the inseparability of production, consumption, distribution and

¹ I use the term 'economics' to denote those inquiries into the provisioning process that do not make specific social forms elements of their theories.

exchange.² The reason why these are inseparable is that the specific social forms of each sphere have implications for each of the others. Take conventional price theory. By treating value and price as independent and dependent variables, respectively, conventional price theory violates Marx's doctrine of the inseparability of production and exchange. Conversely, Marx holds that money 'represents a social relation of production' (Marx 1859: 35), and he traces the roots of the doubling of wealth in capitalist societies into commodities and money to the peculiar asocial sociality of labour under capitalism.

Marx's theory of money is simultaneously a critique of ideology. Conceiving of money as necessarily displaced social form not only points to where classical political economy went wrong; in fact, it suggests why it went wrong. After all, money does not exactly have 'social form of labour' written all over it; neither does the value of commodities shout out 'social form'. On the contrary, Marx calls money a 'riddle' and the commodity a 'hieroglyphic'. Precisely because, in the capitalist mode of production, the peculiar social form of labour and its products necessarily gets displaced as the value property of commodities and as money (where they are unrecognizable as social forms), labour and wealth appear to be altogether without specific social form and purpose. 'Labour which manifests itself in exchange-value appears to be the labour of an isolated individual. It becomes social labour by assuming the form of its direct opposite, of abstract universal labour' (Marx 1859: 34). Appearing not to be social at all, labour and wealth are not even candidates for having definite social form and purpose. As a consequence, the capitalist mode of production naturally gives rise to the illusion that, being no particular social form of production, it is 'production in general' incarnate. This is what I call 'the illusion of the economic'.³

Marx's theory of money, of course, is a window not just on the distinctiveness of his value theory and critique of economics but on the distinctive, monetary, nature of the capitalist mode of production: 'all bourgeois relations appear gilded' (Marx 1859: 64). Marx identifies two fundamental traits of the capitalist mode of production; both require money. (1) 'It produces its products as commodities. The fact that it produces commodities does not in itself distinguish it from other modes of production; but that the dominant and determining character of its product is that it is a commodity certainly does so' (Marx 1894: 1,019). (2) 'The production of surplus-value [is] the direct object and decisive motive of production' (Marx 1894: 1,020). Thinking of money as an instrument to facilitate the exchange of wealth badly

² On this topic see particularly *The Poverty of Philosophy* (1847; 78); the Introduction to the *Grundrisse* (1939); and *Capital III*, ch. 51, 'Relations of Distribution and Relations of Production' (1894).

³ See Murray (2002).

misconstrues money's significance for the capitalist economy. Money cannot be merely an instrument in the capitalist mode of production, because money is necessary for the production of commodities and because the purpose of capitalist production, the endless accumulation of surplus value, can neither be defined nor pursued independently of money (Marx 1867: 255). To posit money as an instrument is falsely to suppose that there could be a capitalist mode of production independent of money, to whose aid money could come.

1 Situating Marx's theory of money and his critique of economics

Marx's historical materialism involves a phenomenology of the human situation according to which concrete, useful labour (i.e. the transformation of given and previously worked-up materials in order to create new use values intended to meet human needs) is a universal and fundamental feature of the human situation.⁴ Marx argues further that there is no production in general, and this is true in two respects, technically and socially.⁵ (1) Production is always technically specific; it is always the production of this or that, cloth or clothes, in this or that way, weaving or sewing. We use 'widget' as a placeholder for any product, but there are no widget factories. (2) 'All production is appropriation of nature on the part of an individual within and through a specific form of society' (Marx 1939: 87). Human production always involves social relations and social purposes, but social forms and social purposes are always this or that. There is no sociality in general and there are no social purposes in general.

In this phenomenology of labour lies the basis of Marx's critique of economics. Its most telling point is that *labour and wealth are inseparable from their specific social form and purpose*. Economics is bogus because it separates wealth and labour from their specific social forms. Economics trades in bad abstractions. Economics is in the grip of 'the illusion of the economic', the idea that there is 'production in general', production with no particular social form or purpose.

2 The polarity of the commodity and money forms

Marx drew the disturbing conclusion that human relations in the sphere of commodity circulation match the Hegelian logic of essence. According to Hegel's essence logic, 'the essence must *appear*' (Hegel 1830: #131, 186).

⁴ By a phenomenology of the human situation I mean an experience-based inquiry into the inseparable features of human existence.

⁵ Marx (1939: 85). That there is no production in general does not mean that nothing can be said in general about production.

According to Marx, value must appear as money. Ordinarily we assume that essence is independent of appearance. Hegel argues that the ordinary assumption is mistaken.⁶ Being inseparable (essence *must* appear), essence and appearance do not face one another as independent to dependent variable. Likewise, Marx shows that value is not independent of price. Hegel judges the logic of essence critically, 'The sphere of Essence thus turns out to be a still imperfect combination of immediacy and mediation' (Hegel 1830: #114, 165). That sums up Marx's judgement of the sphere of commodity circulation. This essence logic, expressed in the polarity of the value-form, which shows itself in the polarity of the commodity and money forms, dominates Part I of *Capital I*, 'Commodities and Money'.

Capital begins by exposing the root of the polarity, the double character of the commodity: it has use-value and exchange-value. The commodity's double character holds circulation's 'still imperfect combination of immediacy and mediation'.⁷ Marx investigates the commodity form in a double movement of thought, going first from exchange-value to value, then reversing to go from value to exchange-value.⁸ The arc of the investigation leads from the commodity form to its polar form, the money form.⁹ The analysis of the value-form concludes that only in the money form does exchange-value achieve a form adequate for the circulation of commodities. But Marx should not be understood as somehow arguing from barter to money.¹⁰ Marx is careful to write the simple value-form as ' x commodity $A = y$ commodity B ' (139) and to contrast it with the equation for 'direct exchange' (barter), ' x use-value $A = y$ use-value B ' (181). Use-values exchanged in barter are not commodities. Why not? They do not have *an* exchange-value, as commodities must. Martha Campbell points out, 'Although Marx never regards exchange value as anything but money price, he does not specify that it is until he shows what money price involves' (Campbell 1997: 100). In beginning *Capital* with the assumption that wealth takes the commodity form, Marx assumes a system of money and prices. Marx pulls a rabbit out of a cage, not – by some 'Hegelian' wizardry – out of a hat.¹¹

Chapter 2, 'The Process of Exchange', confirms the conclusion reached conceptually in the first chapter: commodities and money are polar forms.

⁶ 'In reference also to other subjects besides God the category of Essence is often liable to an abstract use, by which, in the study of anything, its Essence is held to be something unaffected by, and subsisting in independence of, its definite phenomenal embodiment' (Hegel 1830: #112, 164; see also #114).

⁷ See Marx (1859: 48) and Marx (1867: 180).

⁸ Marx points out that no one else thought to attempt this reverse movement (1867: 139).

⁹ See Marx (1867: 139).

¹⁰ See Campbell (1997). Her criticism of Levine and Ong applies to Murray (1988).

¹¹ 'Marx does not derive money from a nonmonetary context' (Campbell 1997: 100).

The owners of commodities 'can only bring their commodities into relation as values, and therefore as commodities, by bringing them into an opposing relation with some one other commodity, which serves as the universal equivalent. We have already reached that result by our analysis of the commodity' (Marx 1867: 180). Commodities, value, and money prove mutually inextricable.

Chapter 3, 'Money or the Circulation of Commodities', examines different forms and functions of money: measure of value, standard of price, means of circulation, and 'money as money' (hoards, means of payment, world money). All these forms match forms of Hegelian essence logic; the polarity of commodities and money persists throughout. This is true even of the final form, 'money as money', in which money seems to overcome polarity and orbit in godly freedom from the world of commodities.¹² Hegel calls this final shape of essence logic 'actuality'.¹³ The truth that 'money as money' still belongs to the essence logic and bears a polar dependence on the world of commodities surfaces in the realization that its bold claim simply to be value bursts on contact. 'If I want to hold on to it [money], then it evaporates in my hand into a mere ghost of wealth' (Marx 1858: 920).¹⁴ Money as money is a mere *caput mortuum*, an empty thing-in-itself (Marx 1858: 937; compare Hegel 1830: #112, 162).

To conclude this section we briefly consider implications of the polarity of the commodity and money forms:

- 1 Use-values directly exchanged (barter) are not commodities. The commodity and money forms – and the necessity for them – develop in tandem with the growing scope and diversity of exchange (Marx 1867: 154, 181–3).
- 2 Value cannot appear except as something other than itself. This is not only because 'congealed homogeneous labour' is imperceptible but also because value cannot exist independently of money and commodity circulation. Value cannot be measured directly.
- 3 Money (price) is the necessary form of appearance of value.
- 4 As polar forms, the commodity form and the money form presuppose one another and exclude one another. (Here is the Hegelian essence logic in nuce: essence and appearance require one another but cannot be collapsed into one another.)
- 5 Money is the incarnation of value, but money is not value. In holding that money is value, rather than the expression of value, Samuel Bailey denied the polarity of the value form.¹⁵

¹² See Hegel (1830: #112, 162).

¹³ Christopher J. Arthur links money with actuality (Arthur 2002: 109). I thank him for a helpful exchange on this matter.

¹⁴ See Arthur (2002: 31).

¹⁵ Compare Campbell (1997: 97).

- 6 Money is not value, but it is the only observable measure of value, so value can have no observable invariable measure.
- 7 Since neither money nor commodities are independent of one another, neither money nor commodities are mere things.¹⁶ A coin remains a thing when it stops being money.
- 8 Value and price are not independent variables; so, there can be no price theory of the conventional sort, which purports to explain the dependent variable, price, on the basis of the independent variable, value.
- 9 Since value cannot be measured directly, Marx's equation that price equals value multiplied by some constant cannot be established in a directly empirical manner. With no direct way of observing the value of commodities, the constant that relates value and price cannot be ascertained.¹⁷
- 10 Because of the peculiar social form of value-producing labour, value is inseparable from money. Nothing of the kind is found in Ricardian theory. Marx's truly social theory of value and money is incompatible with the asocial Ricardian theory of value and money.
- 11 Though value and the specific social form of labour that produces it are not possible without money, it is the transformation of the social form of labour into value-producing labour that accounts for the omnipresence of money (Marx 1867: 152; compare Campbell 1997: 97). Action is prior to its consequences.
- 12 Because commodities necessarily express their value in an external thing (money), things that have no value can have prices (Marx 1867: 197).¹⁸

3 Money, the roundabout mediator

Money is the consequence of a specific social form of labour. Money necessarily mediates private production and social need. Marx discusses the social

¹⁶ 'Money is not a thing, it is a social relation' (Marx 1847: 81).

¹⁷ This did not trouble Marx, as he believed that he had shown why value could only be congealed homogeneous human labour of a specific social sort: 'Since the exchange-value of commodities is indeed nothing but a mutual relation between various kinds of labour of individuals regarded as equal and universal labour, i.e., nothing but a material expression of a specific social form of labour, it is a tautology to say that labour is the only source of exchange-value and accordingly of wealth in so far as this consists of exchange-value' (Marx 1859: 35). Marx's labour theory of value itself is *not* a tautology, but if it is true, exchange-value, as the necessary expression of value, can represent only labour.

¹⁸ Marx, then, foresees and answers the common objection to his procedure at the beginning of chapter 1, where he seems to assume that all commodities (everything with a price on it) are products of labour and have value. This feature of the price form also opens the door to 'hybrid subsumption', that is, the incorporation, through the mediation of money, of non-capitalist forms of labour and wealth, e.g., slave-labour and its products, into capitalism.

form of labour that requires money first as commodity-producing labour and later as surplus-value-producing labour. Because it does not grasp the topic of the specific social form and purpose of labour and wealth, economics fails to recognize the inseparability of the social sort of labour that produces commodities from money. By contrast, Marx's theory of commodities, exchange-value, value, money, and price is all about specific social forms, and all about the modes of mediation of labour and wealth in capitalist societies.

At the heart of that complex theory lies Marx's observation that commodity-producing labour is mediated in a roundabout fashion.¹⁹ Commodity-producing labour has an asocial sort of sociality; it is social, because it produces for others but, as privately undertaken production, it is not directly social. Individuals produce commodities for their own purposes, but those particular purposes can be realized only if their products are socially validated as components of social wealth by being sold. Marx contrasts this asocial form of sociality, this roundabout type of mediation, with the directly universal, communist form of sociality:

On the foundation of exchange-value, labour is first posited as universal through exchange. On this foundation [communist society] labour would be posited as such before exchange, i.e., the exchange of products would not at all be the medium through which the participation of the individual in the general production would be mediated. Mediation must, of course, take place. In the first case, which starts out from the independent production of the individual – no matter how much these independent productions determine and modify each other *post festum* through their interrelations – mediation takes place through the exchange of commodities, exchange-value, money, all of which are expressions of one and the same relationship. In the second case, the presupposition is itself mediated, i.e., communal production, the communality as a foundation of production, is presupposed. The labour of the individual is from the very beginning posited as social labour. The product does not first have to be converted into a particular form in order to receive a universal character for the individual.

(Marx 1939: 171–2)

Value is inseparable from the system of money and prices because of the specific social form of the labour that produces commodities: 'On the foundation of exchange-value, labour is first posited as universal through

¹⁹ In 'On the Jewish Question', Marx extended the Feuerbachian critique of religion as roundabout mediation to the modern state: 'Religion is precisely the recognition of man by detour through an intermediary. The state is the intermediary between man and his freedom' (Marx 1843: 44–5).

exchange.' Value-producing labour must be universal, but, on the basis of 'the independent production of the individual', this universality can be achieved only through exchange. The sale of commodities belongs *to* this particular social form of labour. Ricardian value theory and the Ricardian theory of money fail because they presume that value and money are separable. In assuming that labour produces value in production alone, Ricardian value theory treats labour as if it had no specific social form; it conceives of production not as the production of commodities or as capitalist production but as 'production in general'. But labour is not actual apart from a specific social form.²⁰ Ricardian value theory posits labour as existing without any determinate social form. This is its deepest mistake, a phenomenological error. Because Ricardian theory is lost in 'the illusion of the economic', it cannot understand money.

4 Demand, value, price

A common view holds that Marx thoughtlessly allots no role to demand.²¹ After all, does not Marx not have a labour value theory of price? And does that not mean that price is determined by labour? Is the price of a commodity not determined by the magnitude of the labour embodied in it? But the amount of labour that goes into a commodity is determined in production. What has that got to do with demand?

This popular conception mistakes Marx's theory of value for the classical or Ricardian one. Ricardian theory does neglect demand. However, a conceptual gulf separates Marx's theory of value from the Ricardian one. Where the Ricardian theory identifies unspecified 'labour' as the source (and true measure) of value, for Marx, value results from the specific social form of labour that produces wealth in the commodity form: 'The labour which posits exchange-value is a specific social form of labour' (Marx 1859: 36). That specific social form of labour, the kind that produces commodities, is possible only if demand plays a role in the constitution of value.

Demand is not just another word for desire; desire is common to all humans. Demand is a specific social form of desire found only in capitalist societies. Demand aggregates individually determined desires for goods and services. But desires of this sort are not universal; neither is their aggregation.²² Demand results from the atomization of society produced along with wealth

²⁰ Hence Marx specifies that value is only 'latent' in the sphere of production; it becomes actual by passing the test of circulation (Marx 1859: 45). What Marx calls 'individual values' are latent; they have not proved themselves as 'social values' (Marx 1894: 283).

²¹ I thank Fred Moseley and Duncan Foley for helpful exchanges on the topics of this section.

²² See Marx (1894: 295).

in the commodity form.²³ Demand presupposes money and prices. Only when backed by money does desire count toward demand (Marx 1894: 282). A vagrant's longing for housing creates zero demand. Take away money and demand vanishes. Demand cannot do even without the concept of money, for demand stretches desire across a monetary grid: to determine the demand for a commodity we need to know what individuals are willing to purchase at various prices. Take away prices and, again, demand vanishes. Finally, commodities are sold not only to consumers but also to capitalist producers. Their level of demand is inseparable from the rate of profit.

When Marx introduces value, he distinguishes between its *substance* and its *magnitude*. He identifies its substance as a 'phantom-like objectivity' and 'congealed quantities of homogeneous labour', labour of a specific social sort, commodity-producing labour.²⁴ Marx calls commodity-values 'crystals of this social substance' (Marx 1867: 128). Labour produces value only if it is socially validated *as* abstract labour, and if it is 'socially necessary'. We learn that such validation occurs only in commodity circulation and that there is no way to tell whether labour is 'socially necessary' apart from the circulation of commodities. Because there can be no value without money and prices, and because the price system presupposes demand, value and demand are inseparable. Demand 'determines' value even before we get to the issue of the magnitude of value inasmuch as, without demand, there would be no substance of value to measure.

To understand how demand affects the magnitude of value and price, we need to know how it figures into the concept of 'socially necessary' labour, because 'what exclusively determines the magnitude of the value of any article is therefore the amount of labour socially necessary' (Marx 1867: 129). Marx's statement on 'socially necessary' labour, however, includes no mention of demand, 'Socially necessary labour-time is the labour-time required to produce any use-value under the conditions of production normal for a given society and with the average degree of skill and intensity of labour prevalent in that society' (Marx 1867: 129). Nevertheless, demand constrains 'socially necessary' labour, a point that Marx signals cryptically at the end of the first section of chapter 1: 'If the thing is useless, so is the labour contained in it; the labour does not count as labour, and therefore creates no value' (Marx 1867: 131). He addresses the matter more expansively at the beginning of chapter 2. He observes that all commodities:

must stand the test as use-values before they can be realized as values. For the labour expended on them only counts in so far as it is expended in a

²³ See Campbell (1997: 100).

²⁴ In assuming wealth in the commodity form, Marx assumes labour in the commodity-producing form.

form which is useful for others. However, only the act of exchange can prove whether that labour is useful for others, and its product consequently capable of satisfying the needs of others.

(Marx 1867: 179–80)²⁵

Labour for whose product there is no demand is not ‘socially necessary’ and therefore produces no value.

Demand constrains value but not in the same way as do the production factors that determine whether or not labour is ‘socially necessary’.²⁶ The average levels of technical development, skill and intensity give positive quantitative determinations of ‘socially necessary’ labour: they always matter. Demand affects the quantity of ‘socially necessary’ labour only when it does not balance supply. Insofar as demand matches supply, it stops influencing the magnitude of value and price (Marx 1894: 290–1). (Even then, demand makes the determination of the magnitudes of value and price possible.) For expository purposes, Marx generally assumes that demand and supply balance. That puts demand on mute. Though he makes the heuristic assumption that demand and supply balance, Marx holds that, in reality, they do not (Marx 1894: 291). Imbalance is to be expected in a system of roundabout mediation. Marx’s theory of prices holds that, as supply and demand vacillate, prices will fluctuate around ‘labour-values’; the law of value, which states that price is determined by the quantity of ‘socially necessary’ labour, pushes itself through only as the law of fluctuation of prices (Marx 1867: 196). Marx argues that, due to competition, average prices over the longrun will iron out the ups and downs of supply and demand, so that demand drops out as a factor in the quantitative determination of value and average price over the long run. These two considerations help explain why the place of demand in Marx’s value theory is inconspicuous and not well understood.

Marx discusses demand at some length in ch. 10 of *Capital III*. He tells why he does:

To say that a commodity has use-value is simply to assert that it satisfies some kind of a social need. As long as we were dealing only with an individual commodity, we could take the need for this specific commodity as already given, without having to go in any further detail into the quantitative extent of the need which had to be satisfied. The quantity was already implied by its price. But this quantity is a factor of fundamental importance as soon as we have on the one hand the product of a whole branch of production and on the other the social need. It now becomes necessary to consider the volume of the social need, i.e. its quantity.

(Marx 1894: 286)

²⁵ Compare Marx (1859: 45–6).

²⁶ Marx calls attention to this difference: see (Marx 1894: 283).

In shifting levels of abstraction from the individual commodity as an aliquot part of the total social capital to the total social capital divided into branches of production and industrial capitals having differing organic composition of capital, Marx introduces the concepts of *market value* and *market price*:

Market value is to be viewed on the one hand as the average value of the commodities produced in a particular sphere, and on the other hand as the individual value of commodities produced under average conditions in the sphere in question, and forming the great mass of its commodities.
(Marx 1894: 279)

The relation between market value and market price is, in the main, the now familiar one between value and price, 'if supply and demand regulate market price, or rather the departures of market price from market value, the market value in turn regulates the relation between supply and demand, or the centre around which fluctuations of demand and supply make the market price oscillate' (Marx 1894: 282).²⁷ Once again, demand drops out as a determinant of average prices over the long run.

Two complicating factors remain. (1) In extreme cases demand affects the magnitude of market value: 'Only in extraordinary situations do commodities produced under the worst conditions, or alternatively the most advantageous ones, govern the market value, which forms in turn the centre around which market prices fluctuate' (Marx 1894: 279).²⁸ (2) Demand appears to affect the average rate of profit and thereby prices of production. When a commodity 'is produced on a scale that exceeds the social need at the time, a part of the society's labour-time is wasted, and the mass of commodities in question then represents on the market a much smaller quantity of social labour than it actually contains' (Marx 1894: 289). It seems to follow that the better that producers track demand, the less squandering of latent value occurs, resulting in fewer deductions from the total amount of surplus-value and a higher average rate of profit and higher prices of production. Here we seem to have two ways in which demand can determine even the magnitude of market values and prices.

5 Money as displaced social form and the 'illusion of the economic'

Marx's theory of money not only explains that economics falls into 'the illusion of the economic', it goes a long way towards explaining why. Marx says that the money form is 'blinding' (Marx 1867: 139). What does it blind us

²⁷ See also Marx (1894: 290–1).

²⁸ See also Marx (1894: 280 and 286).

to? Most of all, it blinds us to the polarity of the value-form, which tells us that neither commodities nor money are mere things; they are things caught up in a peculiar network of social relations, social mediations, that they make possible. Marx stresses the point that, in capitalist society, social relations appear displaced on to the relations between things: 'it is a characteristic feature of labour which posits exchange-value that it causes the social relations of individuals to appear in the perverted form of a social relation between things' (Marx 1859: 34). The point of Marx's theory of value and money is that we do relate to one another through our commodities and money. Nonetheless, it is *we* who associate in and through these things. Because value, which is something purely social, appears, first, to be a natural property of a commodity (the fetishism of the commodity) and, still more perversely, to be a thing, money (the money fetish), social relations seem to be absent. The specific social form of labour and wealth in capitalism necessarily gets displaced on to money, a thing that does not look like a social form at all!²⁹ This sets the stage for the 'illusion of the economic' because it makes capitalist society, its labour and its wealth, appear to have no particular social form or purpose at all. 'It is however precisely this finished form of the world of commodities – the money form – which conceals the social character of private labour and the social relations between the individual workers, by making those relations appear as relations between material objects, instead of revealing them plainly' (Marx 1867: 168–9). That not only generates 'the illusion of the economic', the belief that 'production in general' is actual, but it also naturally leads to the idea that capitalist production is 'production in general'.³⁰

Marx brings out these ideas in his discussion of the money fetish in the closing paragraph of chapter 2. I quote it in full for it synthesizes so many of the ideas that we have been examining:

We have already seen, from the simplest expression of value, x commodity A = y commodity B, that the thing in which the magnitude of the value of another thing is represented appears to have the equivalent form independently of this relation, as a social property inherent in its nature.

²⁹ Marx calls this situation *verrueckt* (translated as 'absurd') (Marx 1867: 169), which means 'displaced' and 'mad'. See Arthur (2002: 173, n. 11).

³⁰ In *Capital III* Marx points out that the division of surplus-value into interest and profit of enterprise (which appears as the 'wages of superintendence') displaces the social form of the capitalist production process on to interest-bearing capital, 'The social form of capital devolves on interest, but expressed in a neutral and indifferent form; the economic function of capital devolves on profit of enterprise, but with the specifically capitalist character of this function removed' (Marx 1894: 506). Once again, specifically capitalist forms naturally create 'the illusion of the economic'.

We followed the process by which this false semblance became firmly established, a process which was completed when the universal equivalent form became identified with the natural form of a particular commodity, and thus crystallized into the money-form. What appears to happen is not that a particular commodity becomes money because all other commodities express their values in it, but, on the contrary, that all other commodities universally express their values in a particular commodity because it is money. The movement through which this process has been mediated vanishes in its own result, leaving no trace behind. Without any initiative on their part, the commodities find their own value-configuration ready to hand, in the form of a physical commodity existing outside but also alongside them. This physical object, gold or silver in its crude state, becomes, immediately on its emergence from the bowels of the earth, the direct incarnation of all human labour. Hence the magic of money. Men are henceforth related to each other in their social process of production in a purely atomistic way. Their own relations of production therefore assume a material shape which is independent of their control and their conscious individual action. This situation is manifested first by the fact that the products of men's labour universally take on the form of commodities. The riddle of the money fetish is therefore the riddle of the commodity fetish, now become visible and dazzling to our eyes.

(Marx 1867: 187)

In money the social mediation of private labour vanishes into a thing, resulting in an atomistic condition of asocial sociality where capitalist social relations do not appear to be social relations. As Marx argued at the beginning of the *Grundrisse*, that helps explain the appeal of state of nature thinking.

The mediating role of money makes capitalist social relations appear to be no social relations at all; likewise, the wealth produced on a capitalist basis appears to have no specific social form or purpose:

Commodities first enter into the process of exchange ungolded and unsweetened, retaining their original home-grown shape. Exchange, however, produces a differentiation of the commodity into two elements, commodity and money, an external opposition which expresses the opposition between use-value and value which is inherent in it.

(Marx 1867: 199; see also 153)

So, in this polar form, the commodity appears as 'pure use-value': that is, use-value stripped of any social form and purpose. Consequently, the commodity looks like 'natural wealth' or 'wealth in general', thus creating 'the illusion of the economic'. Commodity exchange works like a centrifuge, separating out the social aspect of the commodity as money, leaving the commodity to appear as purely private, mere use value.

Since the social form of wealth in the commodity form is displaced on to money, commodities themselves appear to be socially non-specific, to be wealth in general. Likewise, commodity-producing labour appears to be labour in general. The asocial, or indirect, sociality of commodity-producing labour appears as an absence of sociality rather than an unusual form of it. It is as if one failed to recognize indifference as one particular state of mind alongside love and hatred. Marx's theory of money, then, plays a pivotal role in his explanation of why capitalism exudes 'the illusion of the economic'. As the circulation process 'sweats out' money, the 'illusion of the economic' beads up.

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4

Marx's Objections to Credit Theories of Money

*Anitra Nelson*¹

Recent reconstructions have inclined towards or substituted Marxian credit theories of money for his theory of the money commodity,² therefore it is significant that Marx criticized the weak credit theories of money with which he was familiar. First, distinctions between commodity and credit theories of money are identified. Second, aspects of Marx's theory of money are highlighted. Third, Marx's objections to concepts associated with credit theories of money are presented. Finally, it is indicated how current Marxian credit theories of money avoid such objections and instead enhance Marx's approach.

1 Background

The monetary theory of economists concentrates on functions, use and management of money. Schumpeter (1954: 62–3, 289) acknowledged that concepts of money were hard to classify but identified distinct approaches as far back as Aristotle, a 'metallist', and Plato, an 'anti-metallist' or 'cartalist'. These terms – which Schumpeter (1954: 288) adopted from the protagonist of a state theory of money, Knapp – roughly translate to a more familiar distinction adopted here of credit and commodity theories of money respectively.

It must be stressed that: (1) many theories do not fall neatly into one approach; (2) monetary controversies have tended to centre on practical issues; (3) theories of credit money are not the same as credit theories of money. The common claim of credit, symbol, sign, nominalist or idealist theories of money is that money is valueless in itself; the value of money is

¹ I thank Riccardo Bellofiore, Martha Campbell, Duncan Foley, John King, Fred Moseley, Patrick Murray and Michael White whose comments assisted in revising this chapter.

² Bellofiore (1989; see also chapter 8 below) leads in comprehensive and sympathetic efforts at reconstruction. Others who have speculated in this direction are discussed in Nelson (1999, ch. 8) and include Lipietz (1985), Foley (1982, 1983) and Reuten (1988). For reasons of space, this chapter does not refer to those works in detail.

determined by its purchasing power and this is formed 'in and by' the minds and/or activities of vendors and buyers. This claim does not preclude money being a commodity, say, historically. In contrast, commodity theories of money rest on the enduring necessity of commodity money with an intrinsic value (say, gold).

Schumpeter classified Marx as a 'theoretical metallist' because Marx argued that the value of money logically derived from a particular commodity. In contrast, Schumpeter's 'practical metallist' simply advocated an ideal association and convertibility between the currency and a commodity, commonly as a policy prescription. Similarly, while a theoretical anti-metallist argued against logical links between the convention of money and the value of a particular commodity, a practical anti-metallist opposed social attempts to associate the value of money with a commodity (Schumpeter 1954: 288–9).

Marx's monetary theory was embedded in his concepts of the commodity and capital. Marx did not sketch a theory of how money might work in an ideal way. He developed concepts to explain capitalist money, thereby collapsing theoretical and practical dimensions. He gave priority to social actions and their combined results to derive systemic tendencies that his labour theory of value described. Marx highlighted the monetary form of capitalist exploitation and illusion in his concepts of commodity fetishism and free and equal exchange which belied the capitalist relations of production. Marx criticized utopian socialist proposals for assuming that the role and value of money could be altered at will and argued for revolution rather than reform; he suggested that there would be no place for money in a just social system.

In his critique of capitalism – which was intended to undercut the theories of both utopian socialists and bourgeois economists – Marx developed an unusual commodity theory of money, 'a theory of the money commodity'. This theory incorporated certain aspects of credit theories of money into the secondary function of money as a means of circulation, where the practical functions of credit money were located too. Marx (1867: 221–7; 1885: 420) went so far as to state that in circulation money became a mere symbol or token of value and capitalism was impossible without credit or credit money. However, he insisted that the primary function of money as the measure of value demanded a money commodity, typically gold. Thus, Marx has been identified first and foremost in the tradition of commodity theorists of money.

Given the prevalence of the gold standard, during the nineteenth century commodity theories of money were fashionable. International balances were measured in gold and market confidence settled on the metal in crises. This indicated to Marx (1867: 236) that the system was based on 'hard cash' and the value of the money commodity was based on costs related to producing it. At the same time he regarded his theory of the money commodity as crucial to the credibility of his labour theory of value.

Baldly stated, Marx's theory of value claimed that the exchange of commodities implied the exchange of the various labours involved in their production. A commodity was objectified labour and its value derived from the socially necessary labour-time directly and indirectly involved in its production. Marx asserted that this process was not obvious because commodities were exchanged according to prices in a common monetary unit. This standard of price implied a measure of value, a money commodity, say gold. This 'universal equivalent' was a commodity that obtained its value from the socially necessary labour time involved in its production.

As the gold standard collapsed during the twentieth century, credit theories of money became more plausible. At the same time Marxians have become more interested in speculating and developing credit theories of money. The ones that interest us, such as Bellofiore (1989; see also chapter 8 below), preserve a determining role for a Marxian labour theory of value. As highlighted by the diversity in this volume, sympathizers are divided in their loyalty to Marx's concept of the money commodity and its place in his analysis. Some regard the current functioning of credit money within capitalism as a peculiar historical conjuncture, a quasi-suspension of the money commodity that nonetheless does or will ultimately dominate. Others regard Marx's attachment to commodity money as a natural result and simple limitation of the historic moment of his analysis and defend revisions and reconstructions.

2 The money commodity

Marx argued that the exchange of commodities necessarily led to the use of a money commodity. Marx's money was the 'necessary form of appearance of the measure of value which is immanent in commodities, namely labour-time' (Marx 1867: 188). The value of money was neither imaginary nor symbolic except inasmuch as all commodities were symbols as bearers of value (Marx 1867: 184–6). In a theoretical sense money could be any commodity; in a practical sense gold or silver had advantages due to qualities such as durability.

An obvious answer to the question, 'What is common between commodities?' is that they are all sold for money. While idealist and utopian approaches treated money as mere and malleable form, Marx presented money as fundamental to the commodity world ruled by his law of value. The money commodity provided a clear and direct route to labour to support his labour theory of value. To ground his theory of value, Marx made price distinct from value with exchange-value expressed in terms of money: that is, an amount of a (money) commodity. Marx argued that the purchasing power of money was determined for, as well as by, the transactors as an effect of market forces that integrated relations of production and circulation. Neither individuals nor collective authorities could determine the

value or purchasing power of money. The measure of value function of money had primary significance in parallel with the conceptual distinction between value (production) and price (circulation).

In circulation, money validated products as commodities, a qualitative process distinct from the quantitative (i.e., the price as an amount). Price was determined socially in the broader sphere of market transactions. Certainly transactors calculated, deciding to sell or buy or not and setting limits in price negotiations. However, market prices resulted from an elaborate series of activities. Thus Marx argued that price was not simply calculated mentally in either a personal or a more general social sense. While money was simply a 'material sign' and 'conscious token' of exchange-value, it was 'not the execution of a preconceived idea' (Marx 1867: 82). In Marx's framework the function of money in circulation reduced to simple validation while the quantitative aspects of value were determined by a much more complex process that related back to the measure of value, to production and labour-time.

Most significantly, Marx defined state-issued paper legal tender as a token of value that naturally evolved from the simple circulation of metallic currency and derived its exchange-value, 'its denomination', from the money commodity (Marx 1859: 116; 1986: 104). Marx (1859: 117) lauded both Plato and Aristotle for acknowledging a role for gold coin simply as symbols and tokens of value and Aristotle for recognizing the form of value in 'the money-form of the commodity' (Marx 1867: 151). Commercial instruments such as bills of exchange typified credit money.

Marx had a unique philosophical and social concept of the commodity as a product of alienated human labour that made living labour extracted from labour-power the ultimate source of capitalist value. In this important sense Marx's theory was unlike any other commodity theory of money. Marx's labour theory of value determined both his elaborations of money as the 'value-form' and his criticisms of other theories. Marx avoided gold fetishism, the crude materialism of theoretical metallism wherein money was co-extensive with gold. However, he resisted developing a credit theory of money and even propounded a monetary theory of credit (de Brunhoff 1973: 72ff).

While commodity theories of money dominated in Marx's time, headway in anti-metallism had been made (Schumpeter 1954: 293–9). Indeed Marx engaged with some of these ideas and works, as mentioned, giving them limited credence in the sphere of circulation. However, other aspects of credit theories of money surfaced unconsciously in Marx's approach. The concept of money as value-form seems amenable to development along the lines of a credit theory of money if the unit of account is seen as a universal equivalent that arises out of and remains based in a composite effect of production and circulation of commodities exchanged in other ways according to the determinations of a law of value as Marx expounded it (Lipietz 1985),

and thus not an ideal abstraction in the sense of being subject to alteration but rather pure exchange-value that is wholly socially conditioned and apposite to the tracts on commodity fetishism (Marx 1867: 163–87; 1962: 155–6, 161–2, 293–6). Further, the developments made by Bellofiore (see chapter 8 below) show that the concept and process associated with money-capital in Marx are conducive to a credit theory of money. However, Marx was consistent in distinguishing his approach from the developing credit theories of money in his time.

3 Marx's objections

Marx was familiar with theorists who only compared certain aspects of money to a commodity or described money as contrary to a commodity. They included Bishop Berkeley who originated a ticket concept of money, though Schumpeter considers him 'more properly' a metallist; Henry Dunning Macleod, whom Schumpeter congratulates for making advances towards a credit theory of money, and Sir James Steuart, whom Schumpeter singles out for making the sole attempt to develop an anti-metallist (and anti-commodity) theory of money (Schumpeter 1954: 289, 296, 718). While such credit theories of money were neither very clear nor complete, they provided Marx with ideas for possible development to complement the concepts of value-form and circuit of money-capital. However, he objected to their overall approach.

Marx (1859: 76) referred to theories of the standard of money that share characteristics with credit theories of money as 'the doctrine of the *nominal standard of money*' and criticized them for suggesting that units of account 'denote ideal particles of value but not weights of gold or silver or any form of materialised labour'. Their views appeared one-dimensional to Marx. In positing his theory of value, Marx (1867: 192) clearly distinguished 'the measure of value as the social incarnation of human labour' from 'the standard of price as a quantity of metal with a fixed weight'. This highlighted the function of the 'money commodity' to demonstrate the connection that Marx made between labour and product, production and circulation.

There was an unbroken line of argument in Marx (1859: 76–86; 1939: 789–805) that started by castigating proponents of the nominal standard of money – including Bishop Berkeley and Sir James Steuart – for confusing the measure of value with the standard of price and ended with attacks on those who 'asserted that labour-time is the real standard of money' (1859: 82–3) either implicitly (Steuart) or more consciously (Gray). Gray advocated that money ought to be simply a receipt and, according to Marx (1859: 84), originated a theory that 'labour-time is the direct measure of money'. In contrast Marx posited that the measure of value was a commodity because it had to express value. Marx (1859: 61) argued that a failure to distinguish between the measure of value and standard of price meant conflating both value and

price and exchange-value and labour-time. Macleod had little place in this argument because he did not even make first base; he had opposed Ricardo's association of exchange-value with labour-time (Marx 1859: 61). Indeed Macleod reduced political economy to the science of exchanges.

3.1 Henry Dunning Macleod

Marx (1859: 143n) wrote that Henry Dunning Macleod 'misinterprets the most elementary economic relations to such an extent that that he asserts that money in general arises from its most advanced form, that is means of payment'. Indeed Macleod (1855: 29, 45) focused on the medium of exchange and argued that currency evolved as a symbol of debt, as a general social obligation, and its primary quality was its 'negotiability' (i.e., 'its general reception as the visible symbol of transferable power'). Currency did not represent or embody the use-value of commodities but was 'an abstract right, or the power of demanding services in general, which may, or may not be commodities' (1855: 35).

Macleod conceived no necessary correspondence between the material and the value of currency. Clearly, the most advanced form of such transferable debt, typically paper, had no intrinsic value. However, even the intrinsic values of gold and silver were 'secondary'; they were only the most civilized of a lineage of purely ideal symbols representing labour (1855: 45). As such, currency referred to or acted as a necessarily variable measure of value. He emphasized that even barter involved a numeraire and defined 'exchangeable value' in terms of the relative value of the labour involved in production (1855: 22), even while deriding Ricardo's notion of cost of production (Macleod 1856: lix). He accused Ricardo of mistaking credit for capital and capital for commodities, concluding that: 'so long as a man believes that Capital or money represents commodities, he can have no true idea of monetary science' (Macleod 1856: lii).

However, other references, for instance to labour and the circuit of capital, corresponded with aspects of Marx. Macleod (1855: liv) insisted that money was 'the symbolical store of unexpended labor' in contrast to commodities, 'the produce of expended labor'. Macleod (1856: xlv) was adamant that buying to consume depended on 'past skill, judgement, and industry' whereas buying to sell or to invest implied credit or 'future skill, judgement, and industry'. Macleod (1855: 262) argued that currency became capital. 'The primary, genuine, and exclusive meaning ... of Capital', wrote Macleod (1856: xlv), 'is the accumulated savings of Labor, and its symbol is money'. Such points had parallels with Marx's money form and his integration of labour and money in the circuits of capital (P-C-M...) despite the place Marx gave the money commodity in *Capital II* (1885) reproduction schemas.

Macleod (1855: 261) argued that bank credit was based on bank capital and was critical for capitalist development. While he was confident that

competition between banks would limit the quantity of paper currency circulating (1855: 402–5) he decided that reference to a substance with a relative value such as gold would ensure its creation in responsible amounts, making him a practical metallist. Marx probably regarded this normative policy prescription of Macleod's as evidence of a theoretical deficiency. Superficially there was a correspondence in the practical views of Marx and Macleod regarding the ultimate function of say, gold, to anchor the system. However, Marx developed a complex concept of a money commodity that was associated with his labour theory of value, while Macleod remained adamant that the primary quality of money was as a valueless claim to future products or services.

3.2 Bishop George Berkeley

In *The Querist* (1735–37) Bishop George Berkeley asked essential questions that have prompted credit theories of money, in short: 'Whether power to command the industry of others be not real wealth? And whether money be not in truth tickets or tokens for conveying and recording such power, and whether it be of great consequence what materials the tickets are made of?' (Query 35). In his view labour was 'the true source of wealth' and human industry provided money with value (Queries 4, 38). While money was singularly useful in developing industry that implied trade (Queries 5, 30), Berkeley doubted the benefit of external trade and argued for a national bank and mint to develop an Irish monetary system for domestic circulation and investment. Berkeley, like Marx, gave market actors and productive activities the greatest legitimacy when it came to the 'measure of value' function of money.

However, Berkeley's approach to price and value focused on the superficial level of market demand and supply and exchange values (Query 24). Therefore he associated monies of account with exchange value, asking if national units of account ought not 'be considered as exponents or denominations of such proportion?' as well as 'whether gold, silver, and paper are not tickets or counters for reckoning, recording, and transferring thereof?' (Query 25). Therefore, like Macleod, Berkeley decided that material gold or silver was unnecessary to the equation (Queries 27, 29–35). He considered paper, bills of exchange and bank notes to be money, its primary function being 'credit for so much power' to employ labour, promote industry and record profit (Queries 426–27).

To support this case Berkeley presented a desert island model. Producers of surplus initially exchanged by way of credit gave way to conventional 'tallies' or 'tokens' (Queries 46–7). Social convention was at the base of the value, or rather the exchange-value, of money. Therefore paper money not only developed value 'by its stamp and signature', it was a more convenient money material in practice (Query 440). He concluded (Query 445) by defining progressive stages from (1) simple exchange, (2) utilizing an amount of

a metal as an exchange medium, (3) use of coin, to (4) creation of publicly authorized paper currency.

Marx expressed great irritation with Berkeley, scathingly reducing his 'abstract concept of value' to a perspective of money as tokens of value that represented 'nothing' (Marx 1859: 79). Similarly Marx (1867: 200n.) criticized Lassalle's explicitly idealist theory of money – wherein he referred to an analogy attributed to Heraclitus between fuel and fire and commodities and gold – because he 'erroneously' reduced money to 'a mere symbol of value'. Marx (1859: 78) called Berkeley 'the advocate of mystical idealism in English philosophy' and charged him with confusing the standard of price with the measure of value and metallic money with paper tokens.

Whereas Macleod adopted a narrow, empirical and pragmatic banker's view, Berkeley's moral, philosophic and holistic framework was more akin to Marx. Berkeley, like Macleod, was wary of and distanced his proposals from the financial excesses preached by John Laws (Queries 254, 281ff). However, while Berkeley appreciated money for oiling the wheels of industry, he was wary of selfish greed and conspicuous consumption (Queries 217, 304–12). Berkeley believed money ought to be responsibly controlled by banks strictly to promote industry to provide work and incomes. In contrast to Marx, who developed models independent of state support or interference, Berkeley had more faith in a well-managed bank to benefit industry than in a free market with a gold mine (Queries 281–9). Here Berkeley's hopes that a national bank would adequately provide for economic development (Queries 277, 289ff) merged with utopian socialist dreams that Marx regarded as fallacious distractions.

3.3 Idealist and utopian misconceptions

In Marx's view, a focus on national monies of account misled theoreticians towards an idealist position and Sir James Steuart had advanced most in this direction. In a quote reproduced by Marx in *A Contribution to the Critique of Political Economy* (1859: 80) Steuart had referred to the monetary unit as 'an ideal scale of equal parts', a proportion such as a degree or a minute, independent of a specific commodity. Steuart focused on money as price. In contrast Marx (1859: 68) had a multi-dimensional approach, arguing that capitalist commodity production and exchange implied a measure of value in the standard of price: 'it is only the commensurability of commodities as materialised labour-time which converts gold into money'. His point was that there was no monetary value without exchange, but exchange itself did not produce monetary value. For Marx bank notes and state monies had a superficial existence dependent on fundamental dynamics related to producing and circulating commodities.

Marx (1859: 83–6) identified John Gray as the progenitor of the theory of labour-time as both a direct measure of value and a standard of price because he proposed a central bank issuing notes on the basis of expended labour. Marx criticized the associated arguments of Thompson, Bray and Proudhon for their unsatisfactory analyses of money too. He pointed to Thomas Attwood and his

Birmingham school for falsely assuming that 'labour-time is the substance and the inherent measure of value' and that 'labour-time is the real standard of money' (Marx 1859: 82–3). Marx went to great lengths to argue that production for the market required a 'universal equivalent' to validate socially necessary labour and that the determination of the proportions it expressed relied on the composite effect of market activities and that this process was outside the control of any individual or social institution.

Gray (1848: 195) went so far as to suggest that money was 'an instrument of destruction, compared with which gunpowder is harmless, and the sword a toy'. Although he argued that money was a creature of the state and thus no measure at all, he proposed a bank that would institute and manage money that was a 'true measure of value' (1848: 196–8). In opposition Marx argued that capitalist production demanded money exactly as it was; money could not be reformed independently. Money was merely the value-form and not the source of contradictions that centred rather on struggles between labour and capital.

In a letter to Weydemeyer, Marx (1983: 377) claimed that his *Critique of Political Economy* had 'demolished to its very foundations' the Proudhonist socialism 'which wants to retain private production *while* organising the exchange of private products, to have *commodities* but not *money*'. Clearly the concepts of money commodity and value-form were intended to clarify inextricable associations between commodities and money (and capital). In the process Marx reduced ideas associated with credit theories of money to a narrow circulatory function hoisting the 'commodity' and effectively obliterating money:

The exchange-value of commodities regarded as a particular, exclusive commodity, constitutes *money*... Money is not a symbol, just as the existence of a use-value in the form of a commodity is no symbol. A social relation of production appears as something existing apart from individual human beings, and the distinctive relations into which they enter in the course of production in society appear as the specific properties of a thing – it is this perverted appearance, this prosaically real, and by no means imaginary, mystification that is characteristic of all social forms of labour positing exchange-value.

(Marx 1859: 48–9)

In these passages Marx reduced activities to their product, using raw materialism as a shield against nonsensical idealism. In contrast it is the more sophisticated materialism based in social activities and behaviour which Marx pioneered that has provided a rudder for discussion and development of Marxian credit theories of money today.

4 Abstract labour and credit theories of money

As mentioned, the main claim of a credit, symbol, sign, nominalist or idealist theory of money is that money is valueless in itself; the value of

money is determined by its purchasing power and this is formed 'in and by' the *minds* and/or *activities* of vendors and buyers. Marx interpreted such theories in the former aspect, as idealist. Indeed the credit theories of money he had before him were weak, incomplete and unsatisfactory. Marx reasoned that such theories ignored or warped the process whereby socially necessary labour-time evolved as the substance of the value-form. However, recent formulations like the one by Bellofiore (see chapter 8 below) avoid this by demonstrating that the numeraire, the unit of account, ultimately develops as the result of activities, not simply ideas. Indeed if the value of the commodity is seen to result from capitalist *activities* involving conscious and conscientious calculation, this is legitimate. However, the synchrony with Marx alongside a logic that he eschewed is intriguing.

The theorization of labour-time was central to Marx's criticisms in the *Critique of Political Economy*. According to Marx (1859: 54–5) Boisguillebert had correctly associated labour-time with the measure of value but crudely conflated exchange-value with concrete labour-time. Benjamin Franklin had more accurately associated exchange-value with abstract labour but had incorrectly deduced that money was 'the direct embodiment of this alienated labour' (Marx 1859: 57). For Marx (1859: 65) the 'universal equivalent' arose in the circulation of commodities as 'the direct reification of universal labour-time'. The measure of value and standard of price were tied together by the concept of the money commodity. The social relations of production were expressed in labour accounting in abstract labour-time (pure activity), but the exchange of commodities (past labour or objectified labour) took place in ratios of prices or equivalent amounts of a specific commodity. According to Marx (1962: 138) the 'immanent' and 'external' measures of value were united in an amount of the money commodity, say, in an ounce of gold. The ounce of gold was the product of a definite amount of the socially necessary labour-time, as well as being the universal form of exchange-value, a standard of price.

The nature of the numeraire distinguishes commodity and credit theories of money. The key question is whether a form of the latter is compatible with Marx's concept of socially necessary labour-time and his law of value. Challenges to the way Marx theorizes abstract or socially necessary labour with respect to the money commodity have contributed, on the one hand, to disillusion with his labour theory of value and, on the other hand, to incisive analyses (Nelson 1999: 187–207). Examples from the latter camp include Foley (1983: 9–10), who questioned Marx's apparent conflation of the value of the money commodity and the value of money, and Ganssman, who identified shortcomings in 'the way in which the link from money to social labour is established' (1988: 308). Another is Bellofiore (1989: 9), whose claim that money is 'an institutional representation of abstract labour, i.e. it is essentially a symbol – though sometimes a use value can be its support', provided a base on which to develop a framework replete with essential aspects of Marx's concept of abstract labour. The works of Bellofiore and

Lipietz (1985) indicate that Marx's concepts of the value-form and monetary circuit of capital offer interlinking concepts and structures within which to develop Marxian credit theories of money.

Marx developed his concept of money in opposition to Ricardo's theory and theories of the mercantilists who conflated gold and money in crude fetish analyses. However, in Marx's time commodity theories of money held sway and seemed to fit reality. In a superficial sense, ultimately, money was gold; associations between currencies and gold, the gold standard and the international standard of payments offered apparent evidence for commodity theories of money and, for Marx, his theory of the money commodity (Marx 1983: 396).

However, while the gold standard linked currencies arranged and managed on a state-by-state basis, the purely metallic money of Marx's analytical models never existed. Ganssmann (1998: 308) is not alone in observing that the notion of a money commodity seemed 'at odds with everyday experience already in Marx's times'. Similarly Vilar (1969: 344) argued that it would 'be quite wrong to counter-pose some imagined age of metal currency, presumed to cover the whole of previous history, to a period of modern currency which began at some point in the 1920s'. Indeed even Marx referred to the Bank of England's reserves as 'a mere phantom of the mind' and was equally pressed to find 'something solid' in his Alice in Wonderland discussions of crises (Marx 1894: 603; Nelson 1999: 148–52).

Marx's analysis unconsciously pointed to a credit theory of money too, for instance in the elaboration of the insubstantial value of the hoard and associated development of money capital in the so-called *Urtex* (1858: 430–507) and the way it is reified as money of account in the circuits of *Capital II*. Most importantly the 'value-form' is compatible with theories that highlight the purchasing power of money where money is only superficially independent of the values of circulating commodities. In short, credit theories of money using Marx's labour theory of value as scaffolding are feasible without damaging, indeed even with enhancing, theorizations of socially necessary labour-time.

The authors of these reconstructions benefit from more advanced credit theories of money and life experience that suggests credit theories of money are plausible (Ganssmann 1998). Thus, Bellofiore (1989) acknowledged that Schumpeter's work informed his revisions of Marx's theory of money, and Duménil and Lévy (1999) similarly stressed the parallel interests of Marx and Schumpeter in crises, cycles and structural change. Writing 50 years after Marx's *Capital I* was published, Schumpeter (1917–18) argued that money had no use-value (i.e., no intrinsic value in the way a commodity does, 'not even when it happens to consist of a valuable material'), and he integrated money in a dynamic theory of capitalist development. This and later works developed on, rather than departed from, directions indicated in Macleod, Berkeley and other works familiar to Marx. Following Macleod, money looked to the future

as a 'claim ticket' rather than as a 'receipt voucher'; money qua money only had an exchange-value because of its purchasing power and as a wage served as 'pure credit' (Schumpeter 1917–18: 161–2, 206).

Marx's analysis was designed to show how collective behaviour, not simply calculating thoughts, produced the laws of value that described the nature of the market and production for the market. His labour theory of value and theory of the money commodity demonstrated a more general claim that it was 'not the consciousness of men that determines their existence, but their social existence that determines their consciousness' (Marx 1859: 21). No single (for instance, state) authority had made money a commodity; instead it evolved from commodity circulation and production for exchange as an obdurate social fact. Money, like capital, arose as an economic category from a complex of social relations. It was created socially but was not amenable to social reform without affecting the whole system of which it was a dependent part. It was not even the key aspect of that system inasmuch as the focus for social reform and revolution lay with wage labour.

It is clear that Marx coupled his criticisms of idealist and utopian socialist approaches with the dangers of reformism. He intended to demonstrate that language associated with money implied or reproduced popular misconceptions implicated in capitalist exploitation and deception. Instead he sought to demonstrate that a peculiar version of labour-time was expressed through market transactions via money. Although the money commodity seemed a logical extension of his labour-based analysis and provided a means for his labour theory of value, in retrospect it seems he overstated his case. Inasmuch as revisions preserve the central scaffolding of Marx's labour theory of value, substituting credit theories of money for Marx's money commodity seems legitimate. Here other important consistencies with Marx include recognition that the market circumscribes state action with respect to money so that the state cannot influence the value of money. In this way the materialist analysis remains intact along with the revolutionary implication of Marx's profound analysis that social justice and human development require a world without state and money.

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5

Money as Constituent of Value

Geert Reuten

1 Introduction

In the first volume of *Capital* Marx introduces 'money' in chapter 1 (section 3) and then reintroduces it in chapter 3. At first sight the second introduction seems merely a superfluous excursion at this point since in the remainder of the book Marx apparently does not 'do' anything with it. He returns to money only in *Capital II* (Part II) and then again in *Capital III* (Parts IV and V). This may be one reason why the chapter 3 introduction has for a long time been much neglected.

Over the last fifteen years commentators have tended to focus on the aspect of the 'commodity money' basis in Marx's theory. This is of course relevant for the current Marxian theory of capitalism, but it is irrelevant for the historical assessment of an author writing in the second half of the nineteenth century.¹ Yet another issue is the methodological question of why Marx – given that commodity money basis – postpones a full account of credit money till later in the work. Here I ally myself with Campbell who argues that this issue should be assessed from within Marx's method and systematic, especially the gradual movement from relatively simple to complex concepts and accounts.²

¹ It is obvious that a Marxian theory of pure credit-money can be constructed. See Williams (2000), Realfonzo and Bellofiore (1996), Bellofiore and Realfonzo (1997), Bellofiore (2004; see also chapter 8 below); see also Reuten and Williams (1989: ch. 2 and ch. 8, §4). However, pure credit-money cannot be introduced early on in *Capital*: an implantation of the stuff of *Capital III*, Parts IV and V early on in *Capital I* would demolish the complete systematic structure of the work, and hence it would require a complete reconstruction (although there is also a class of reconstruction that does not affect the systematic structure of the work). Even if Marx had introduced money as finance early on in *Capital I* (say, after Part II) he still would have had to present a general account of money earlier, and it is this general account of Part I that I am concerned with in the rest of this chapter.

² Campbell (1997, 1998, 2002). See also Williams (2000).

In this chapter I provide a novel interpretation of the relation between the two introductions of money referred to (chapter 1 and chapter 3 of *Capital I*). In particular I will argue that chapter 3 sheds indispensable light on what happens in chapter 1; chapter 1 is a one-sided account that gets complemented in chapter 3. A neglect of the core aspect that I will emphasize about chapter 3 must have consequences for all further interpretations of the book; however, I cannot deal with that issue here.³

This chapter is historiographic and hence I abstain from presenting my own (value-form theoretical) views. Thus there is no question of agreement or disagreement with Marx involved other than internal critique.

I refer to the German *Das Kapital I* by (1867G) and to the English Fowkes translation by (1867F). Unspecified page references (e.g., 180) are always to the latter. Note that chapters 1–3 together constitute Part I of the book.

2 The monetary dimension

2.1 Form, prevalence, systemic existence

The standpoint of chapter 1 of *Capital I* is ‘the commodity’. The relatively brief chapter 2, on the process of exchange, introduces social actors of exchange and the action of society to turn a particular commodity into the general equivalent ‘money’ (180) within a society of generalized commodity production (187). Thus chapter 2 posits the *prevalence* (*Dasein*) of money in practice. Whereas chapter 1 already posits *the form* of money, money itself (i.e., its systemic existence) is derived in chapter 3. Notably it is systematically derived from exchange, just as the commodity and value were derived from exchange. Behind it is a notion of dissociated production, but this is implicit.⁴ It is only later that the role of value – money’s role in production and the full circuit of capital – will become explicit (i.e. in all the rest of *Capital*). But in order to comprehend this role, chapter 3 is absolutely crucial.

2.2 Extroversion

Throughout chapter 3 Marx frequently uses the term *veräußern* for ‘to sell’, which literally means ‘to outer’ or ‘outering’. Nevertheless, the normal German term would be *verkaufen* (a term that he also uses; the difference is lost in the

³ In previous work (esp. 1989, 1993 and 2000) I suggested that whereas Marx made a fundamental ‘break’ from classical political economy there are (inevitably) classical/Ricardian remnants in his work. (See Murray’s 2000a critique of my 1993 paper, my reply (2000) and Murray’s rejoinder in 2002.) A restudy of a number of German texts of *Capital* (together with insights from Hegel’s work) makes me conclude that there are far fewer such remnants than I thought before. See Reuten (2004) which, next to the current chapter, is a key to this.

⁴ Chapter 2 – prior to the introduction of capital in chapter 4 – nevertheless posits an anticipation of dissociated production.

English translation). He also uses *entäußeren* for the same, as well as other terms with the same root of *außer*, especially *Außdruck* (expression; compare the roots *außer*, outer, utter). This homology is also lost in the translation.

The term ‘outer’ makes one of course alert for an ‘inner’ or ‘immanent’. Moreover, against the background of Marx’s familiarity with Hegel’s philosophy the terms are rather heavy; they point at ‘moments’ that can be distinguished but that inseparably belong together.

At the end of the first section of chapter 3 of *Das Kapital I* Marx writes (1867G: 118; italics added):

Die Preisform schließt die *Veräußerlichkeit* der Waren gegen Geld und die Notwendigkeit dieser *Veräußerung* ein.

Fowkes translates (198):

The price-form therefore [?] implies both the exchangeability of commodities for money and the necessity of exchanges.

Apart from the ‘therefore’ this translation is defensible, but it completely loses the connection pointed out above. A more literal translation would be:

The price-form implies/entails the ‘extroversibility’ of commodities for money as well as the necessity of this ‘extroversion’.

But without explication this would not make sufficient sense in English.⁵

2.3 The introversive and the extroversive constituent of value

In Marx’s view money is one *constituent* of value (he does not use exactly this formulation). The immanent or introversive constituent of value is undifferentiated ‘abstract labour’ (chapter 1), its extroversive (*außer*) constituent is money (chapter 3); but these two *inseparably* belong together. Money is the *necessary* form of expression of value (*Außdruck*). That is, *value has no existence without money*.⁶ This is the end-result of Part I.

⁵ Translation necessarily involves interpretation. Translators have to rely on the common interpretation of their days, and therefore a novel interpretation must have consequences for the translation.

⁶ My thoughts are intuitive without expressing them. My face is that due to its expression; when my skin has been injured by fire, my face is still my face, and yet not. It seems to me that the *innere-äußere* opposition is in between:

internal–external (inadequate because of its ‘exogenous’ connotation)
 impressive–expressive
 introversive–extroversive
 implosive–explosive (if we could cut their connotations of destruction).

For Hegel especially, inward–outward would have to be added. Marx evades *innere* in the current context (he uses it in *Capital I*, Part VII), and adopts instead ‘immanent’ (*immanent*). Henceforth I adopt the terms of immanent/introversive and extroversive.

Another way of saying that value has no existence without money is to say that value is *without exception* of monetary dimension.⁷ In fact this is already the outcome of chapter 1. Its section 3 presents the *formation* of the form of money, or one could say it posits the *form* of extroversion (*Veräußerlichung*) which is the starting point for chapter 3.⁸

Marx introduces the concept of 'value-form' in chapter 1. After that the term moves to the background in the sense that it is only sporadically used. The reason is that in chapter 3 the concept is concretized into its monetary expression. Key to this concretization is money's role as *measure* of value as well as the meaning of 'measure' (see section 3 below).

2.4 From a simple to an enriched notion of value

Section 1 of chapter 3 sets out the 'function' of money as 'measure of values'. This may give the (false) impression of there 'being' value entities independently of the 'measure', that is independently of money. If Marx had started here from scratch and considered the measurement of a use-value in terms of money, the problem would not have arisen. In fact he considers *commodities*.

If my interpretation as set out in section 2.3 is accepted we move from a simplified notion of value (chapter 1) to an enriched one (that of the full Part I), each indicated with one term 'value' (section 3.2 below). Evidently we cannot but start chapter 3 with the simple notion of value inherited from

⁷ Value's monetary *dimension* does not imply that it only exists in monetary shape. Entities in capitalism (e.g., machines) may have a value of monetary dimension without being money. Equally things may be of monetary dimension (e.g., machines as functioning means of production) without having a price: things have a price only when they are offered for sale. Within the circuit of capital $M-C_1 \dots P \dots C_1'-M'$ the $C_1 \dots P \dots C_1'$ is ideally accounted for in the monetary dimension. This ideality may be exciting (as it should be) but it is not surprising. Every businessman, accountant or auditor knows that most of the balance sheet of an enterprise is made up in terms of an ideal monetary dimension (the balance sheet is a static version of the circuit of capital).

⁸ See also Arthur's excellent study (2004: 36–8). He writes: 'to be a commodity involves *all* the determinations of Chapter 1, including those of Section 3 on its *form*, in which it is shown that an adequate expression of the value of commodities requires the existence of money'. See also his chapter 7 in this volume. The notion that value has no existence without money is also key to Murray (this volume) although he arrives at this from an angle different from the one proposed in the current paper. Elson (1979) is an inspiration for the research reported in the current chapter. 'Marx's examples', she wrote, 'are always couched in money terms, *never* in terms of hours' (139). In fact the same applies to Marx's equations (Reuten 2004). Elson notes that 'values cannot be calculated or observed independently of prices' but she also thought that 'in *Capital* Marx does not highlight the conceptual distinction which he makes between an "immanent" or "intrinsic" measure, and an "external" measure, which is the mode of appearance of the "immanent" measure' (136). In fact the German text is rather explicit. With her 'Marx does not highlight the conceptual distinction which he makes', she showed great intuition.

the previous chapters. Therefore, there might at first sight appear to be two lines of reasoning in chapter 3: labour-time and money. Near to the opening of chapter 3 Marx writes (188): ‘Money as a measure of value is the necessary form of appearance of the measure of value which is immanent in commodities, namely labour-time.’ The first line of reasoning is an obvious reference back to the chapter 1, simple–abstract ‘immanent’ or introversive notion of value with its immanent measure, namely labour-time. The other line posits that money is ‘the necessary form of appearance’ of that immanency. The commodity, and hence value, has *no existence* without money: ‘products of labour ... taking the form of commodities implies their differentiation into commodities and the money commodity’ (188n).

The monistic focus on the introversive notion of value in much of the Marxian economics after Marx is certainly also due to Marx’s presentation of the matter, especially his particular way of moving from simplified determinations to complex ones.⁹ However, because of the inseparability of the introversive and the extroversive constituents of value, monistic phrases such as ‘labour-values’, or conversely, ‘value-prices’ do not fit Marx’s theory and hence are never used in *Capital*.

3 Very abstract labour

3.1 False analogies – abstract labour and abstract timber – and the disappearance of the simplified notion of abstract labour

The (false) impression of there being value entities independently of the ‘money measure’ is reinforced by (false) analogies with other types of measurement. When we measure the length of a table with a metre stick, the table’s length exists independently of the stick.¹⁰ The analogy is false because the table is fully constituted as material/substance (introversive) *and* form (extroversive). There is no obvious unique way to measure the length of the *material* of the table (i.e., the length of the timber and nails, say). Surely we can in principle measure the length of two odd pieces of freshly cut timber – in this sense we have measurables – but we cannot add those up in a unique sensible way because of their unequal shapes.

To redress the analogy: there is no obvious unique way to measure the ‘introversive substance’ of value. You cannot add up nails and timber to measure the length of a table, or at least these would be awkwardly related. The same goes for concrete labour in connection to value.

In chapter 1, therefore, Marx takes recourse to the notion of ‘abstract labour’ as a simplified constituent of value (it would be misleading to call

⁹ Without helping us by saying what he is doing.

¹⁰ Its length *in metres* does *not* exist independently of the stick (or rather the metric system), but that is not my point here.

this even an abstract substitute measure).¹¹ It is most telling that after this chapter the term 'abstract labour' disappears, with four exceptions. In face of the Marxian discourse of the last twenty years this cannot be stressed enough.¹²

When in chapter 1 Marx presents the commodity, he *posits* their being and prevalence (*Dasein*). In fact their existence is only *grounded* when he gets to their production in Parts III to V (though even this grounding is still a simplified one). In a different jargon: their production is presupposed (the presupposition being grounded later). Similarly, when presenting the commodity in chapter 1 Marx presupposes the money measure that is only grounded (still simple) in chapter 3. Abstract labour foreshadows the money measure.

Column 2 of Figure 5.1 provides a schematic outline of the determinations of value. Column 1 sets out a hypothetical analogy with another realm. Several entries in the Figure 5.1 will be expanded upon later.

¹¹ I still think that it is to the point to conceive of 'abstract labour' as a foreshadow of *money* (as I did in previous work). But this notion has proved confusing in debates with those labour-embodied proponents who think in terms of 'abstract labour embodied' and from which I distance myself (see Reuten 1993). In previous work I adopted for abstract labour the composite *mL* (where *m* is the monetary expression of labour; and *L* in fact added-up concrete labour). As an interpretation of Marx this is wrong. (At least it is wrong to use Marx's term abstract labour for *mL*; *mL* is value-added which is a more concrete notion.) After the initiating chapter 1 this notion (and the term) 'abstract labour' is superseded and should not be used any more.

In my view many if not most of the problems for the interpretation of chapter 1 have to do with the difference between abstract and concrete labour. *Capital* was not written (Marx thought) for philosophically educated readers. The meaning of 'abstract labour' is not easy. In the course of explaining it Marx, I think, felt constrained to take recourse to all kinds of non-rigorous approximations, analogies and examples. However, these are overcome section-wise. Once the later section is comprehended it makes no sense to phrase that non-rigorously. (Didactics may require to explain the mathematical notion of fraction by example of a cake. It is expected that when we get to fractional exponential growth, the thinking in terms of cakes is past.)

¹² To my knowledge 'abstract labour' is further used: once in chapter 2, twice in chapter 3 (1867F: 209, 240) and once in chapter 8 (1867F: 308) (German edition chapter 6), all in Volume I. There are no occurrences in Volumes II or III. There is also an occurrence in the *Results* (1867F: 992–3).

Relatedly the term labour as 'substance' disappears after chapter 3, though with a few exceptions that are references back to the Volume I, chapter 1 notion. There are two exceptions for Volume I: 18 (672), 23 (715); one exception for Volume II: 19 (462); four exceptions for Volume III: 8 (248), 48 (961, 964, 968) (references are by chapter and page number of the English texts in the Fowkes/Fernbach translation).

The term 'homogeneous labour' equally disappears after chapter 3 (without exception to my knowledge).

Figure 5.1 A hypothetical analogy for the measurement of material ‘tables’ and of social ideal ‘value’[†]

TIMBER AND TABLES	LABOUR AND VALUE
We begin by a <i>simplifying</i> abstraction and reduce (e.g.) ‘ tables ’ to a material substance that they have in common, timber ; we consider this as a ‘moment’ of tables.	We begin by a <i>simplifying</i> abstraction and reduce ‘ value ’ to a social substance that entities of value have in common, labour ; we consider this as a ‘moment’ of value.
‘ Timber ’: substance of <i>tables</i> . <i>Introversive moment</i> for the constitution of tables.	‘ Labour ’: substance of <i>value</i> . <i>Introversive moment</i> for the constitution of value.
Tables are not timber as such. (Further: considering timber under the aspect of length does not imply that ‘length of timber’ is the measure for tables.)	Value is not labour as such. (Further: considering labour under the aspect of time (labour time) does not imply that ‘labour time’ is the measure of value.)
The length of timber is a quality necessary for the being of tables – at least provisionally.*)	The time of labour is a quality necessary for the being of value – at least provisionally.*)
‘ Tables ’ (at the level of abstraction reached so far): tables are constituted by an <i>introversive moment</i> of substance (timber) and an <i>extroversive moment</i> of form (actually: the creative material act of making).	‘ Value ’ (at the level of abstraction reached so far): value is constituted by an <i>introversive moment</i> of substance (labour) and an <i>extroversive moment</i> of form (actually: <i>ideal commensuration by money</i>).
All tables have timber in common, at least provisionally (i.e. at the current level of abstraction*); but they are <i>not</i> fully constituted by timber.	All value has labour in common, at least provisionally, (i.e. at the current level of abstraction*); but it is <i>not</i> fully constituted by labour.
‘Tables’ are material realities. (In principle tables can be trans-historical material realities.)	‘Value’ is an ideal reality. (Moreover it is a social-historical ideal reality.)
* Provisionally: we can have plastic tables.	*Provisionally: the form allows for an extroversive hypostasization – value without labour substance (see section 4.4 below).
Once we have reached beyond the early simplification it makes no sense to measure conceptually enriched tables by measuring length of timber: <i>length of tables</i> ≠ <i>length of timber</i>	Once we have reached beyond the early simplification it makes no sense to measure conceptually enriched value by measuring time of labour: <i>quantity of value</i> ≠ <i>time of labour</i> (value ≠ abstract labour-time)

Note: [†]I do not want to suggest that Column 1 sets out the appropriate way for knowing what tables are, and how they should be measured; the message is that inasmuch as it makes no sense to measure the length of fully constituted tables by the timber, it makes no sense to measure value by labour time.

3.2 Immanent substance and immanent measure: abstract labour and method

We saw that money is the necessary expression of value: only with money do we arrive at the extroversive form of immanent substance: that is, the determinate 'being' of commodities. There cannot be a privileging of the one over the other (analogously: when we consider a specific table there is no point in privileging the 'introversive' timber and nails over the 'extroversive' creative act of formation of that table or vice versa; the one without the other is not-table). In other words, 'value' and the 'commodity' are not fully constituted in chapter 1: they are merely as an initiating simplification.

Marx's method is one of conceptual *progression* from simple to complex determinations. In the case at hand chapter 1 establishes introversive notions of the commodity; at that level of the presentation the commodity has no determinate existence, but rather 'prevalence' (*Dasein*). The commodity of simple circulation is fully posited only with its extroversive notions in chapter 3 (completing Part I).

Marx's immanent measure of value in chapter 1 – time of 'abstract labour' – is *very* abstract. It does not provide a measure of value in the sense that we (nowadays) usually use the term measure. Many commentators have brushed away this problem by identifying value and 'abstract-labour time'¹³ 'Abstract labour' cannot be measured (in terms of time) with more sense than timber as abstracted from, for example, anything but its length. But for the latter this does not provide the full constitution of a table (merely substance); for the former this does not constitute value (merely substance).

I use the term 'very abstract labour' because in the literature on Marx, or developments from his work, the term 'abstract labour' has become somewhat worn out: it seems often identified with a *quantitative part of concrete (!) labour*: (1) producing at average conditions of production (hence, it is said, 'necessary'); (2) for the product of which there is demand (hence, it is said, 'necessary'); (3) that contributes to production in a particular sense, or 'productive' labour (hence, it is said, 'necessary'). These issues can be announced; however, there is no way of *knowing* them or measuring them prior to the market. Thus abstract labour has no determinate existence. Abstract labour has a dimension of time but, paradoxically, it cannot be measured unless we *assume* that abstract labour equals concrete labour (thus abstract from abstract labour).

Rather, value is fully constituted only when we have money; money in the market measures 'abstract labour' and so determines 'abstract labour' so to speak; however (!), at this point the term 'abstract labour' is superfluous: we have value. (Of course, it may be added, 'value' itself is an abstraction in practice.)

¹³ See also Reuten (1999).

The notion of very abstract labour implies that chapter 1 does not present a 'labour theory of value' (a term not used by Marx) in any quantifiable sense. From this again derives the conclusion that abstract labour, a fortiori, cannot be quantitatively implanted into lower levels of abstraction (and – to repeat – Marx does not do this).

The warning regarding the chapter 1 notions of value and labour also applies to 'money' within chapter 3. It seems that for Marx a thing's 'being' the measure of value (section 1) and its being the means of circulation (section 2), constitutes it as being money. The heading of section 3 is 'Money'. It means that only in that section money becomes constituted (though simple). This gives rise to a considerable language problem (as always in systematic dialectics) of how to talk about the entity prior to it (i.e., without running into artificial language). In the first two sections of chapter 3 Marx often uses the term 'gold', but frequently also 'money' even if money has not yet been fully constituted.

Of course this problem applies to 'capital' in all of *Capital*. Each time (section, chapter, part, volume) we are further introduced into it. It is misleading to think of any early presentation as 'truth'; it is also misleading to cite it in that way. Until the completion it is always partial ('the whole is the truth', wrote Hegel).

4 Money's measuring: ideal transsubstantiation

4.1 Idealities

In this section I expand on the core of chapter 3: 'money's measuring'. I begin with a fairly long quotation from early on in the chapter, which I take to be programmatic. It shows, first, that the *value* of an entity is a purely ideal form of its existence (this denies ontologically real 'embodiment'); second, the measurement in terms of money (gold) is an *ideal* act: it is performed through an *imaginary* equalization with money (gold); third, as a result the second performance can be established by imaginary money. I amplify on the first two issues in section 4.2 and on the third in section 4.3.

The price or *money-form* of commodities is, *like their form of value generally [wie ihre Wertform überhaupt]* quite distinct from their palpable and real bodily form; it is therefore a purely *ideal* or notional form [*nur ideelle oder vorgestellte Form* – 'vorgestellte', i.e., 'imagined']. Although invisible, the value of iron, linen and corn exists in these very articles [*Dingen*]: it is signified [*vorgestellt*, i.e., 'imagined'] through their equality with gold, even though this relation with gold exists only in their heads, so to speak [*ihre Gleichheit mit Gold, eine Beziehung zum Gold, die sozusagen nur in ihren Köpfen spukt*, i.e., their equality with gold, a relation to gold, even though this only haunts their heads, so to speak]. The guardian of the commodities must therefore lend them his tongue, or hang a ticket on them,

in order to communicate their prices to the outside world. Since the expression of the value of commodities in gold is a purely ideal act [*ideell-ist*], we may use purely imaginary [*nur vorgestelltes*] or ideal gold to perform this operation ... In its function as measure of value, money therefore serves only in an imaginary or ideal capacity [*als nur vorgestelltes oder ideelles Geld*, i.e., as merely imaginary or ideal money].

(1867F: 189–90; 1867G: 110–11; emphasis added)¹⁴

4.2 Marx's notion of 'measurement': *verwandlen* and standardized measurement

When Marx refers to money's measurement he refers to an abstract genus. This is a problem for us. In everyday language and practice money is so much an ('imagined') concrete entity that we tend to immediately give it the content of *our* particular money: the North Americans think of their dollars, many Europeans of euros, and so on. 'Money', however, is the abstract general of these. This is a main difficulty of chapter 3. If this is not grasped then Marx's distinction between measure of value and standard of price becomes a superficial one.¹⁵ Marx points this out, but not clearly enough. It is important to stress this because it underlines the conceptual progress made in chapter 3.

Usually when we think of a measure we think of a standard. However, when Marx says 'money measures value' he means that it establishes the *commensuration* (i.e., homogenization).¹⁶ That is to say, the value-form determination is concretized as *money measure*. On the other hand, the 'taking measure' (and ticketing) of the value of a commodity is established in terms of a standard of price. The distinction between this 'measurement in general' and the specific 'taking measure' by way of a particular standard is most important. (Marx's terminology might seem idiosyncratic in current language. However, in Hegel's Logic (both its versions) we have a similar usage of the term 'measure'. In hindsight this also sheds light on Marx's usage of 'immanent measure' for the chapter 1 moment of value.)

¹⁴ Fowkes misses the qualification of 'equality' into 'relation'. His suppression of the 'haunting' (*spukt*) is an obvious intervention in the text. It is also not clear why Fowkes is not consistent about 'imaginary'/'imagined' where Marx is consistent about it (*vorgestellt*).

¹⁵ The 'standard of price' may be some (nominal) quantum of gold when a commodity money regime prevails, or a specific nominal accounting unit (dollar, euro) when a regime of pure credit-money prevails (as after the Bretton Woods demise of the mid-1970s). Standards of price are linked in their exchange rates.

¹⁶ A homogenization that is foreshadowed in the term 'abstract labour'. But this is *not* a homogenization: it is a (very) abstract notion.

As the measure of value it [money] serves to convert [*verwandeln*, transform] the values of all the manifold commodities into prices, into imaginary *quantities of gold* [that is, money in general]; as the standard of price it [money] ... measures, on the contrary, *quantities of gold by a unit* quantity of gold [*Goldquantum*].

(1867F: 192; 1867G: 113; emphasis added)¹⁷

The second phrase, about the standard, specifies a unit (quantum) for the measurement of the quantity in the first phrase. For the *second phrase* we can use the analogy of (say) length measurement: as a standard of length a particular rod (named metre or yard) measures 'entities of length' by a unit of length (one metre or one yard). As the standard of price, some particular money (named dollar or euro) measures quantities of money (a pile of notes or coins) by a unit of price (one dollar or one euro).

For the *first phrase*, as already indicated (section 3.1), the analogy would be false. Prior to the measurement we have 'entities of length' (such as tables). For the commodities, prior to the measurement, we merely have the 'introversive substance', which is a *purely ideal or imagined* introversive substance (cf. the quote in section 4.1).¹⁸

The act of measurement by money (i.e., prior to the actual exchange) ideally 'transsubstantiates' commodities into form-determined entities and *hence* commensurate or homogeneous (cf. the quotation from 1867F: 192 given above). This is like a miracle. But just as most Catholics that go to church every week or perhaps every day may not be very attentive any more to the miraculousness of the (ideal) transformation of bread and wine into the body of Christ, we are, when we mundanely buy our daily bread, usually not very attentive to the miraculous ideal transubstantiation as performed by the lady in the baker's shop.

This transubstantiation in reference to the Catholic celebration is one connotation of the German term *Verwandlung* (and its verb *verwandeln*). Transformation and to transform is perhaps the preferable translation (unfortunately, it is not consistently adopted). Thus money's measurement performs the value-homogeneity of commodities. Or we could also say: money turns the hopelessly abstract immanent notion of 'abstract labour'

¹⁷ My interpolations in square brackets derive directly from the (German) text; interpolations in curly brackets are interpretative.

Note again that Marx of course departs from the chapter 1 'immanent value' – a notion that is now, with the extroversion, transformed into a more concrete concept of value.

¹⁸ I use this term 'substance' because Marx uses it. But even when prefixed by 'purely ideal' the term tends to give rise to notions of 'embodiment' (expanded upon in Reuten 1993).

into extroversive form, and therewith into a potential concretum (concretum, that is when the *salto mortale* is completed into the metamorphosis C–M). Without this ‘measurement *überhaupt*’, standards of price (or standards of value) make no sense.

Thus value is, in *both* its constituents (introversive and extroversive), imaginary or ideality. Although it is beyond the subject of this chapter I should add that ideality can have real effect. In this case this is – as far as I am concerned – the point. (See Murray 2000b and 2004 on subsumption.)

4.3 Imaginary measurement by imaginary money

I now turn to the third aspect of the ‘programmatic’ quotation (section 4.1 above). If we restrict the discussion (as I have done so far) to money as measure of value, Marx goes as far as one could go in the commodity-money based monetary regime of his day (though see section 5): that is, within the restriction – much emphasized by Campbell 1997 – of simple commodity circulation, namely, prior to the introduction of capital into the presentation, and hence prior to the introduction of money as finance. In hindsight it is easy (but a-historical) to criticize almost all of monetary theory prior to, say, 1973 for allotting a major role to metal in the top of the money pyramid.

If we compare the current ‘pure credit-money’ regime with a ‘pure commodity money’ regime the crucial step is not the demise of the Bretton Woods regime (the controlled international gold–dollar standard); the latter is the tail. Crucial is the (national) irredeemability of banknotes and the prevalence of ‘money of account’ at all: imaginary money (cf. Marx’s treatment of money of account in section 3 of chapter 3).¹⁹ Thus the ideal or imaginary *Verwandlung* is accomplished by ideal or imaginary money (or – from a perspective of pure credit-money – by nominal money).

4.4 Extroversive hypostasization

One culmination of Marx’s treatment of money as measure is the ‘imaginary measurement by imaginary money’ mentioned above. A second one is the hypostasization of money as extroversive measure, whence entities (as including insensuous ones) can take the price-form without having value (196).

The possibility ... of a quantitative incongruity between price and magnitude of value ... is inherent in the price-form itself. This is not a defect, but, on the contrary, it makes this form the adequate one for a mode of production whose laws can only assert themselves as blindly operating averages between constant irregularities.

¹⁹ In this context Marx’s ‘inverse quantity theory of money’ is important (the quantity of money is determined by the price level).

However, the possibility of incongruity may go further than these irregularities. Marieken, Faust or a modern business manager can sell their souls. With the money they can buy indulgences or 'goodwill': 'Things which in and for themselves are not commodities, things such as conscience, honour, etc., can formally speaking, have a price without having a value' (197). Whereas in their simplicity the introversive determinations of chapter 1 are necessary – as Marx frequently repeats – the extroversive determinations are equally necessary. However, because it is inherent to the latter that these do not stick to the former, the extroversive measure hypostases.

The upshot is of course a shift in the connection between the chapter 1 'simple value' and the chapter 3 price constituting 'value'. Whilst money necessarily measures value, it can also measure nullities.

5 An introversive regress: bullion

The weakness of Marx's presentation dated 1867 is not at all, in my view, that he starts his account of money as measure with commodity money: the development of money of account from it is fine. The weakness is rather that when he gets to the final subsection of the chapter, 'World Money', he makes the impression of presenting the empirical prevalence of 'world money' in the shape of gold/silver (especially for settling international payments) as an argument for his starting point in commodity money. And instead of *theorizing* that prevalence, he just describes it: money 'falls back into its original form as precious metal in the shape of bullion' (240). What is more, he explicitly presents a regression to chapter 1: 'In the world market... money functions to its full extent as the commodity whose natural form is also the directly [*unmittelbar*, i.e., *immediate*] social form of realization [*Verwirklichungsform*, i.e., form of *actualization*] of human labour in the abstract' (1867F: 240–1; 1867G: 156). Quite aside from my methodological critique above, this quotation provides a textual confirmation of the main thesis of this chapter about the relation between chapters 1 and 3, including the *ex ante* immeasurability of abstract labour (in the usual sense of measurement). By itself abstract labour is not actual. Note first that we have here one of the two occurrences of 'abstract labour' in this chapter (and in *all* of the 2,000 pages to come there is just one recurrence). Note also that the two corrections in the translation above are crucial. 'Immediateness' refers to an abstract, yet underdeveloped or defective account. 'Realization' in this context is most confusing, as in some Marxian accounts the term refers to 'sale'. Instead Marx says, bullion is *being* the immediate form of human labour in the abstract. Directly following the text just quoted Marx writes: 'Its mode of existence [*seine Daseinsweise*] becomes adequate to its concept.' Mere *Dasein* is another reference to defectiveness. Thus bullion *is* the immediate form of abstract labour. I add: bullion itself.

Thus the chapter 1 'abstract labour' is *only mediately measurable* as we necessarily require money: money measures abstract labour. The one exception to this necessary mediation (in 1867) is the labour producing the commodity

'bullion'; because bullion as world money functions as general means of payment and general means of purchase, we have an immediate social form of actualization of abstract labour. (Today, of course, there is no exception.)

6 Summary and conclusions

Value constitutes the historically specific *social form* of production in capitalist societies. Part I of *Capital I* introduces the concept of value by way of an analysis and synthesis of simple commodity circulation: that is, commodity circulation in abstraction from capital, the production of capital and the development of the circuit of capital (the subject – briefly – of the remainder of the work).

Although this social form has real (ontological) effect in shaping the material production in capitalist societies, it is an *ideal* form in the sense that it is insensuously permuted to entities and processes. It has sensuous existence only in money and artefacts of accounting, themselves physically separate from those entities and processes, although utterly meaningless without the latter.

In the interpretation of Part I of *Capital I* set out here, the *ideal immanent (or introversive) substance of the value* of commodities is 'abstract labour' (*sic*). Its qualitative measure (i.e., the immanent measure of value) is 'time' of abstract labour. This is what I called the simple-abstract notion of value (of chapter 1). It is defective and it has no real ideal existence (no ideal existence in practice).

This simple notion is complemented in chapter 3 by the *ideal extroversive form of the value* of commodities: money. It is only henceforth that 'value' has been fully constituted. Money establishes the actual homogeneity of commodities, and is the only one actual ideal measure of value (adopting a particular standard).

The introversive substance and the extroversive form of value are *inseparable*. Value cannot be concretely measured without money; any effort to do so comes down to a Ricardian 'timber-nail tale' of measurement. However, we have seen that this inseparability is not symmetrical: money can measure, and purchase, nullities.

Once we are past chapter 3, any talk in terms of abstract-labour(-time) is a regression to a simplification (i.e., simple or underdetermined value). Marx, though, does not make this mistake.

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6

The Universal Equivalent as Monopolist of the Ability to Buy

Costas Lapavistas

1 Introduction¹

The theoretical analysis of money as the universal equivalent in the opening chapters of *Capital* is a highly distinctive aspect of Marx's theory of value. Neither classical political economy nor neoclassical economics offers a comparable analysis of the relationship between value and money. In *Capital* (and elsewhere, selectively cited below) Marx defines money as the universal equivalent, or the independent form of value. By representing value in general, money allows the value of particular commodities (abstract labour-time) to be expressed as price in capitalist markets. This much is common ground within the Marxist theory of money. However, there is far less clarity on the specific economic content of money as the universal equivalent, especially the relationship between value representation and money's unique ability to buy. Similarly, there is no established understanding of the economic process through which the universal equivalent emerges in commodity exchange.

It is vital for the coherence of the Marxist theory of value and money to specify fully the economic process through which the universal equivalent emerges, for it is one thing to show that commodity value must have an independent form, as is often and successfully done within Marxist political economy, but quite another to demonstrate the economic process through which value acquires this independent form. To put it otherwise, showing that money must exist is not the same as showing how money comes to exist, though the two are inevitably related. By identifying the analytical process through which money emerges, moreover, the specific economic content of money would also become clearer.

¹ Thanks are due to all participants at the conference on Marx's theory of money, Mount Holyoke College, August 2003, especially Arthur Nelson, Fred Moseley and Christopher Arthur. The final version is the sole responsibility of the author.

Some of the problems created for Marxist theory by the lack of a common understanding regarding the economic content of money can be gleaned from recent debates (including contributions to this volume) on whether Marx has a 'commodity theory of money', an issue often phrased as: does Marx's analysis imply that the universal equivalent must be a commodity? This question initially appears to be of the first importance. If Marx's theory implied that money must be a commodity, its relevance to contemporary capitalism would seem limited. If it did not, how would one account for Marx's frequent references to gold (and silver) as capitalist money? But the question is far less important than appears at first sight, for it derives from conflating, on the one hand, the economic content of the universal equivalent and, on the other, the forms taken by it in the course of capitalist circulation. If the specific economic content of the universal equivalent was properly established in theory, commodity money (and fiat money, banknotes, bank deposits, and so on) would be seen in its true light. It would then become clear that the actual existence of a commodity functioning as money is a secondary issue, or a matter of the particular form taken by the universal equivalent. Thus specifying the economic content of the universal equivalent is a prerequisite for ascertaining the status of commodity money in Marxist monetary theory.

Establishing the process through which the universal equivalent emerges in commodity exchange, however, has a bearing on much more than merely the coherence of Marxist monetary theory. Money permeates the capitalist economy and its social role is deeply contradictory. In brief, money is generally held, but not consumed; it is universally sought in exchange but never offered for sale; it is also plebeian but undemocratic. It is intuitive that the complex role of money is closely related to its unique ability to buy other commodities. It is equally intuitive that the process through which one commodity comes to possess absolute buying power over all others cannot be different from the process through which one commodity comes to represent value for all others. Establishing the representation of value by the universal equivalent is essentially the same process as establishing the monopoly that money enjoys over the ability to buy.

The core claim of this paper is that the specific economic content of the universal equivalent is its possession of monopoly over the ability to buy. To show how money acquires this economic content, the paper considers the analytical (logical) process of money's emergence in the course of commodity exchange. Drawing on Marx's analysis of the 'forms of value' in the first chapter of *Capital*, a reinterpretation is proposed of the theoretical pair of opposites 'relative-equivalent' that is identified by Marx in the elementary value relationship. Specifically, the paper interprets 'relative-equivalent' as 'request for exchange-ability to exchange directly'. It then treats 'request for exchange' (the relative) as a rudimentary 'offer to sell', and 'ability to exchange directly' (the equivalent) as a rudimentary 'ability to buy'. It is

subsequently shown that Marx's discussion of the development of the form of value provides the fundamentals of an analytical (logical) process through which money emerges in commodity exchange. Specifically, it is shown that the emergence of money is induced by all other commodities collectively (but without planning) adopting the position of relative towards a single commodity. That is, commodities collectively address requests of exchange towards a single commodity, turning the latter into money. In this light, money monopolizes the ability to buy because all other commodities are regularly and systematically offered for sale against it.

To substantiate its core claim the paper further discusses the social relations of commodity owners, especially 'foreign-ness' to each other and overwhelming focus on self-gain. These social relations are shown to be fundamental to money's emergence. The universal equivalent as monopolist of the ability to buy is the social bond of commodity owners, the *nexus rerum* of capitalist society. By this token, the pure economic relations among commodity owners are a necessary but not sufficient condition to induce monopolization of buying ability by the universal equivalent. Money's emergence and generalized use also depend on the existence of social customs that pertain to commercial transactions and the representation of wealth. In short, money encapsulates the individualist outlook of commodity traders, but also the presence of social customs in trading. Money, moreover, confers to its holder power over commodities, and by extension over people and resources. The contradictory role of money in capitalist society originates in the social relations captured and represented by the universal equivalent as monopolist of the ability to buy.²

The paper is organized as follows. Section 2 briefly discusses money's contradictory character, showing its close association with money's unique ability to buy. Section 3 turns to the relationship between money and value within Marx's theory. It is shown that the process of money's emergence is analytically related to the development of the form of value, rather than to the substance of value as abstract labour. This is not at all to deny that (under capitalist conditions) money represents abstract labour in general. The point is, rather, that abstract labour plays no vital role in the analytical process leading to money's emergence. The universal equivalent as monopolist of buying ability results from the development of the form of value, not value's substance. Section 4, then, focuses on the dialectic of 'relative-equivalent', interpreted as 'request of exchange-ability to exchange directly', and specifies the process through which the universal equivalent comes to monopolize the ability to buy. Social custom is very important in this respect. Section 5 briefly concludes.

² For the same reasons money provides privileged terrain for the study of the interaction between the economic and the non-economic in capitalist society: see Lapavistas (2003: ch. 3).

2 The contradictory character of money

Money is ubiquitously held in capitalist society by capitalists, workers, and others. It is typically the asset taken by all commodity owners to market, the asset of choice for storing wealth, and the means of settling past obligations, commercial or otherwise. But those who possess money consume it neither directly nor privately. This is a paradox, especially for neoclassical economics, since 'rational individuals' appear to hold a portion of their wealth in an asset that affords them no direct consumption. A possible way out of the paradox is to claim that the services provided by money – above all, liquidity and storage of value – constitute the actual object of consumption. Yet the benefits of liquidity are typically rendered when money is spent (i.e., when property over it is relinquished and money is held no more). The benefits of hoarding, on the other hand, rest on absolute avoidance of consumption of money. Thus, while commodities provide gratification by being possessed and privately consumed, money provides services by being surrendered to others, or via abstention from active use. Consequently, money's usefulness cannot be analysed similarly to that of other commodities. The benefits from holding money do not result from the private relationship between money and its holder, but are comprehensively social.

Money is not only universally held but also universally sought in capitalist exchange: workers offer their labour-power in exchange for money wages, and capitalists offer commodity output in exchange for sales (money) revenue. Similar patterns of generalized seeking of money occur in other markets, such as real estate, finance and services. It is a general principle of trading across capitalist markets to offer commodities for sale, while seeking money in return. But money itself is never offered for sale; it is always used to buy. Typically, in capitalist markets commodities do not buy other commodities, and neither do they 'buy' money: only money buys and is never sold.³ To interpret the purchase of a commodity as the 'sale' of money is to stretch the normal meaning of terms to absurdity: to sell is to offer a commodity for money, while to buy is to accept such an offer by handing over money. In this respect, too, money is a social asset. Money's ability to act as absolute instrument of purchase depends on the universal expectation that money will continue to be able to buy other commodities as a matter of course. This expectation is normally fulfilled as commodities are typically offered for sale against money (rather than directly against other commodities). Thus, the use of money is a social norm established through the collective practice of all participants: commodity owners behave collectively

³ This statement is similar to, but not identical with, Clower's (1967: 5, emphasis in original) famous aphorism that '*Money buys goods and goods buy money; but goods do not buy goods.*' However, for this essay, goods do not 'buy' money: they are exclusively sold for money. Only money buys.

and socially (but without planning) in ways that make it possible for money to operate as money.

Money's universal ability to buy has profound implications for the power and outlook of capitalists participating in commodity exchange. Whoever holds money and intends to buy is in a different position *as trader* from whoever holds commodities and intends to sell. Since money can buy all other commodities, but commodities are sold specifically for money, it is normally more difficult to sell than to buy. The seller of finished output must actively solicit the agreement of others to the proposed sale, while the buyer of inputs is in the commanding position of selecting among offers made by others. These observations naturally refer to the normal conditions of capitalist markets and do not hold for all markets at all times. Conditions could arise whereby the holder of money might find it difficult to obtain commodities, while the holder of commodities could easily get hold of money. But, exceptional circumstances aside, the money owner usually approaches the market with more power and confidence than the commodity owner.

Money is also thoroughly plebeian. It does not respect traditional rights, erodes aristocratic privileges of pedigree and kinship, and eliminates traditional and hierarchical social differences.⁴ Money is intolerant of customary restraints on its economic and social functioning, and disdains established social niceties. It is also coarse and vulgar, since it rejects intellectual and moral delicacy, and has no truck with refined taste in art, fashion and decoration. Money typically elicits the lowest sentiments of humanity, including greed, venality and deception. But plebeian money is undemocratic since economic, social and political power is afforded to those who possess money, while being denied to those who lack it. Money despises the poor and deprives them of access to resources; it creates new distinctions and refinements in art, fashion and conspicuous consumption; it saves children from their own mediocrity, buys suitable spouses, and transfers privilege across the generations. Money, the leveller, builds a web of customary practices that harden social attitudes towards the weak and the needy.

It is demonstrated in the rest of this chapter that the pervasive and contradictory presence of money in capitalist markets originates in the social and economic relations characteristic of commodity owners. Money constitutes a necessary social bond among commodity owners driven by personal gain. Its universal ability to buy is a purely social property created by the collective action of commodity owners and sustained by social custom. The use of money strongly resembles a social norm: money can be money because the action of commodity owners turns it into money.

⁴ Simmel (1900) offers the classic sociological discussion of the levelling, 'plebeian' aspect of money.

3 Money's emergence and Marx's theory of value

In the first chapter of the first volume of *Capital*, Marx (1867: 139) proudly claimed that he had solved the 'riddle' of the 'money-form' of value. Marx's discussion of the 'form of value' provides the basis for the exposition of money's emergence in this paper. However, the argument presented below involves a strong reinterpretation of Marx's analysis of commodity value. Drawing heavily on Fine and Harris (1979), Weeks (1981) and Itoh (1976), commodity value is taken to comprise the social substance of abstract labour, which becomes a social reality only when capitalist social conditions are generally established across society.⁵ These conditions include heightened mobility of labour (occupational and geographical), work being performed under the discipline of capital, and commodities being systematically exchanged as products of capital (enterprise output). It is vital to note, nonetheless, that forms of value (exchange ratios, prices, etc.) can also arise within the capitalist mode of production without being directly connected with the substance of value, as in the markets for real estate and financial assets. Equally, forms of value can also emerge historically in the absence of capitalist social relations: commodities, exchange value, money, prices, interest and lending are commonly observed in non-capitalist societies. However, the forms of value are fully developed only under capitalist social conditions.

With this in mind, this paper puts forth a theoretical demonstration of money's emergence that does not rely on the substance of value (abstract labour). Specifically, it is shown that the analytical process of money's emergence corresponds to the development of the form of value, and bears no necessary relation to value as abstract labour. Nevertheless, the paper explicitly assumes the existence of capitalist conditions (i.e., that commodity owners are capitalists). By implication, the commodities to which reference is made below also possess value as abstract labour, though this has no bearing on the process of money's emergence. Despite the irrelevance of abstract labour, it is important to assume capitalist conditions because they provide a natural framework for analysis of interaction among commodity owners. To be specific, capitalist commodity owners are mutually 'foreign', motivated by personal gain, and yet do not fight each other. These relations are shown to be fundamental to money's emergence. They can also be observed in non-capitalist communities and societies, but are an inherent characteristic of capitalist trading, hence the assumption of capitalist conditioning.

It should be noted that in some parts of Marx's theoretical corpus (for instance, 1859: 42–6, and 1939: 142–5) money is also shown to emerge as a result of contradictions between the two fundamental aspects of the

⁵ See also Lapavistas (2002, 2003).

commodity, that is, use value and value as abstract labour. Briefly, as values (quantities of abstract labour), commodities are homogeneous, perfectly divisible and simple (i.e. general) but, as use values, they are heterogeneous, imperfectly divisible and complex (i.e. particular). In direct commodity exchange, the aspect of value clashes with that of use value in each commodity, and the process of exchange breaks down. To take an example, coats and tables as values are homogeneous and general, and hence they are equivalent to each other at, say, the rate of two to one. But coats and tables as use values are heterogeneous and particular, and therefore direct exchange between the owner of one coat and one table is impossible. Now, if the two aspects of the commodity were separated from each other, the contradictions could be resolved. If each commodity was 'doubled' – that is, if it appeared in the market simultaneously as the use value that it naturally is and as a value in the form of another thing – the process of exchange need not break down. According to this approach, money is the commodity that generates the required 'doubling' of other commodities, by representing value as abstract labour for all others. In the presence of money, all commodities are use values as their physical selves and values as quantities of the money commodity. Thus, in our example, the owner of one coat can simply obtain the money equivalent of the value of half a table.⁶

This is an ingenious argument, but does not amount to an explanation of the process through which money emerges for two reasons, both related to value as abstract labour. The first, and less important, is that neither the historical emergence nor the complex functioning of money depends on the existence of capitalist production, and therefore on abstract labour as social reality. This observation does not mean that a timeless theory of money is necessary, applying equally to all modes of production, but it does imply that the theoretical demonstration of money's emergence should have a more general validity than simply for capitalist money. This is not so when the demonstration relies on the contradictions between use value and value as abstract labour.

The second reason is that this particular argument by Marx shows, at most, the necessity for value to achieve an independent form in commodity exchange, but not the process through which this occurs. It is undeniable that, if an independent and general representative of value existed, the contradictions between use value and value would be resolved, while direct exchange would become monetary exchange. But it is not enough to identify the abstract need for such a representative of value, or even the potential benefits from its existence, unambiguous as they might be. It is also

⁶ The contradictions between value and use value are then reproduced at a higher level, since monetary exchange creates the possibility of imbalance between the output offered for sale and the effective demand directed towards it.

essential to specify economic and social mechanisms through which abstract labour becomes universally represented by one commodity *as a direct result of the contradictions between use value and value*. It is one thing to establish the necessity of an independent form of value through analysis of the contradictions between use value and value, but quite another to show that the same contradictions spontaneously cause value to become independent.

The absence of an analytical process of money's emergence in this particular section of Marx's work on money is strangely reminiscent of classical economic analysis of the 'difficulties of barter' as the source of money. An early formulation of the 'difficulties of barter' can be found in Smith (1776: Vol. I, ch. V) while Jevons (1875) later captured the gist of it with the term 'double coincidence of wants'. For Smith, direct commodity exchange continually breaks down because commodities are not perfectly divisible, homogeneous, durable, portable, and so on. However, if a generally accepted commodity existed, every 'prudent' merchant would carry it in order to use it in intermediate transactions that would eventually allow successful completion of desired exchanges. The generally accepted commodity is money, which resolves the 'difficulties' of exchange by transforming barter into monetary exchange. The weakness of Smith's argument is that it takes for granted what needs to be explained (i.e. the general acceptability of money among 'prudent' merchants, or its universal ability to buy).

In contrast, Marx's discussion of money in the first chapter of the first volume of *Capital*, which serves as our point of departure, does provide an analytical process of money's emergence. But in this part of Marx's work, money is shown to emerge primarily as a result of the development of the form of value, rather than because of the contradictions between use value and value. Thus, for our purposes, the substance of value (abstract labour) is best left aside and analytical focus shifted onto the form of value, or exchange value. Since the first chapter of *Capital* is one of the most heavily debated texts ever, no attempt is made to summarize or critically assess the secondary literature. Instead, in the rest of this paper, Marx's discussion of the 'simple, isolated or accidental form of value', the 'expanded form', the 'general form', and the 'money form' are reworked and critically interpreted. The successive 'forms of value' are treated as stages in the development of exchange value, which is also the process through which money emerges in commodity exchange. It is worth stressing that the development of the form of value is not a summing up of the historical process of money's emergence but represents the logical unfolding of relations among commodity owners as they interact in exchange. The social and economic relations among commodity owners lead to money's emergence as the independent form of value, which is the commodity that can buy all others.

4 The process of emergence of money in commodity exchange

4.1 The 'simple, isolated, or accidental form of value'

Some simplifying assumptions must be made at this point, which do not significantly affect the content of the analysis. Commodity owners are assumed to possess a fixed quantity of one commodity each, to trade in pairs, and to interact at random ('accidentally') in the sense that any two among them could meet. More important is the assumption that commodity owners lack the social ties of kinship, custom or moral obligation. Commodity owners are primarily concerned with obtaining an equivalent for the commodity they bring to market. They approach each other as mutually alien, independent and essentially 'foreign' individuals.⁷

It follows that, for any 'accidental' pair of commodity owners, an opening gambit must take place that invites trading interaction to occur. It is suggested here that the opening gambit consists of one trader taking the initiative and requesting exchange with the other. Thus, the request takes the form of offering one's own commodity in exchange for the other. In order to emphasize money's eventual monopoly over the ability to buy, the opening gambit could also be heuristically interpreted as rudimentary 'offer to sell',⁸ but it should be borne in mind that selling proper takes place only against money. Marx's (1867: 139) 'accidental' form of value can then be interpreted as a set of relations that flow among commodity owners after the opening gambit has been made. The commodity owner that makes the gambit is the active, or relative party. By making the request, the relative immediately puts the other party in the position of passive or equivalent. Using simple symbols, trading relations commence between the owner of *A* (relative) and the owner of *B* (equivalent) through the former offering *x* of *A* for *y* of *B*. There is a definite direction to this relationship, captured with an arrow:

$$x \text{ of } A \rightarrow y \text{ of } B^9$$

After entering into this relationship, the two commodity owners assume very different positions. The relative has unilaterally declared the exchange

⁷ Under such conditions, war might break out instead of trade, yet commodity exchange is, on the whole, successful at limiting violence among its participants, despite retaining a role for power. For our purposes, there is little to be gained by considering conflict among commodity owners.

⁸ As it is also called in other work; see Lapavitsas (2003, ch. 3).

⁹ Marx uses equalities in this context, while also insisting on the 'asymmetry' between *A* and *B* (Marx 1867: 140), yet equalities are inherently symmetric and therefore inappropriate for analysis of 'asymmetry'. It is better to use an arrow in order to capture the 'polarity' between relative and equivalent: see Sekine (1999) and Lapavitsas (2002).

value of *A* to be equal to a quantity of *B*. At the same time, the equivalent has been informed that *B* can be exchanged directly with *A*. It is trivially true that the 'accidental' relationship between the two commodity owners could be reversed, if they met another time. But the point is that, on each occasion that they meet, once the opening gambit is made, the two commodity owners would be locked in opposing positions; indeed, the positions of relative and equivalent are 'polar' opposites (Marx 1867: 140).¹⁰

In economic terms, the opening gambit means that the owner of *A* has declared *A*'s (per unit) exchange value to be equal to y/x of *B*, while the owner of *B* has discovered that *B* could be directly exchanged with *A*. If the transaction was actually completed, a degree of validity would accrue to both pieces of information. For our purposes, *B* would have passively acquired the property of direct exchangeability with *A*, amounting to a rudimentary ability to buy, even if only the specific relative, *A*. This is a new property for *B* that accrues solely from the request for exchange made by *A*'s owner. Its source lies in the actions of the owner of *A*, and the property exists exclusively in the context of the market. The eventual emergence of money stands for the acquisition by a single commodity of a universal ability to buy, and occurs through the collective and regular offers to sell all other commodities for money.

The 'accidental' form of value is a private relationship between the owners of *A* and *B*. It is also fleeting and subject to reversal whenever the two commodity owners meet. However, given our initial assumptions, the owner of *A* could make requests for exchange to any and all other commodity owners on a frequent and regular basis. Thus, fully to represent the range of trading relations that could be potentially instigated by the owner of *A*, it is necessary to have an exhaustive list of possible equivalents. This gives rise to the 'expanded' form of value, which overcomes the fleeting and unstable 'accidental' form.

4.2 The 'total or expanded form of value'

Using the arrow, the 'expanded' form consists of:

$$\begin{aligned} x \text{ of } A &\rightarrow y \text{ of } B \\ x \text{ of } A &\rightarrow u \text{ of } C \\ x \text{ of } A &\rightarrow w \text{ of } D \end{aligned}$$

Two fundamental changes to the 'accidental' form can be observed. First, the (per unit) exchange value of *A* is now declared to be a boundless set of quantitative ratios $\{y/x \text{ of } B, u/x \text{ of } C, w/x \text{ of } D, \dots\}$. Second, all other

¹⁰ Bargaining makes no difference to this argument, and not simply because we have assumed fixed quantities possessed by each party. Nothing would change in the relationship between the two commodity owners if the owner of *B* responded by suggesting some ratio of physical quantities other than y/x .

commodities have acquired a degree of direct exchangeability, even if only in relation to *A*. It follows immediately that the exchange value of *A* and the direct exchangeability of $\{B, C, D, \dots\}$ are now properties that hold across the market. Consequently, both properties are less fleeting and partial than in the ‘accidental’ form.

In the ‘expanded’ form, relations between the owner of *A* and those of other commodities lose some of the private character typical of the ‘accidental’ form. Since they are more general, these relations begin to resemble a regular social practice, a norm that must be taken into account by others in the course of trading. But this is necessarily a market-based norm that lacks deeper foundations in the sphere of production, such as those possessed by value as abstract labour. At the same time, the terms on which *A* is offered for sale are irregular and heterogeneous (a boundless set of quantitative ratios), while the direct exchangeability (ability to buy) of other commodities applies only to *A*. All pairs of commodity owners that do not include *A* have to go through the relative–equivalent gambit, without any certainty of being able to complete the putative transaction. Thus, in the ‘expanded form’, both exchange value and ability to buy lack stability. The thorniest issue in the logical demonstration of money’s emergence lies in showing how the ‘expanded’ form gives rise to the ‘general’ form of value, thereby overcoming the weaknesses of the ‘expanded’ form.

4.3 The ‘general form of value’

The ‘general’ form of value is given by:

$$\begin{aligned} y \text{ of } B &\rightarrow x \text{ of } A \\ u \text{ of } C &\rightarrow x \text{ of } A \\ w \text{ of } D &\rightarrow x \text{ of } A \end{aligned}$$

Technically, this is the reverse of the ‘expanded’ form. The exchange value of all commodities is represented by *A* alone, and hence commodities request exchange (are offered for sale) on simple and homogeneous terms across the market. By the same token, *A* is directly exchangeable with all others (i.e., it can buy all others). Since *A*’s direct exchangeability (ability to buy, or ‘moneyness’) is not restricted with regard to any commodity, *A* is already the universal equivalent, or money (Marx 1867: 159). In the ‘general’ form, both exchange value and ability to buy are stable social norms (but still exclusively market-based) since they result from the regular and collective action of the owners of $\{B, C, D, \dots\}$ relative to *A*. The question then is: how does the ‘general’ form emerge? In the relevant section of *Capital*, Marx (1867: 157) appears to suggest that the ‘general’ is inherently contained in the ‘expanded’ form, since all that is required for passage to the former is the simple reversal of the latter. This is not a fully satisfactory argument, for reasons briefly explained below.

For any set of n commodities there are $n(n-1)/2$ pair-wise relations, or $n(n-1)$, if the relative is treated as the polar opposite of the equivalent, that is, if (x of $A \rightarrow y$ of B) is treated as different from (y of $B \rightarrow x$ of A). In principle, formal reversal of the 'expanded' form could apply to any set of $(n-1)$ relatives, but then it follows that there would be n universal equivalents. Far from isolating one commodity as money, formal reversal of the 'expanded' form would turn all commodities into money. This logical difficulty is symptomatic of the deeper problem of perfect symmetry among commodities, when the latter are considered purely as exchange values. With use value left out of account, all commodities are undifferentiated objects of trading. There is no *a priori* reason for the form of value to be attached to one of them differently from the rest, yet the use of money in commodity trading represents the highest degree of asymmetry: one commodity is permanently placed on the side of the equivalent and all others on the side of the relative. The formal reversal of the 'expanded' form cannot produce such universal asymmetry, given that commodities are inherently symmetric to each other. To be specific, formal reversal of the 'expanded' form results in n universal equivalents, instead of one. There is no satisfactory way out of this impasse, if only the formal properties of the 'expanded' form are taken into account. To establish the reasons for the emergence of money's characteristic asymmetry it is necessary to go beyond relations typical of plain acts of exchange and seek recourse to social custom among commodity owners.

Historical and traditional factors play an important role in Marx's own discussion of the emergence of money. In a separate section of *Capital* (1867: 182–3) Marx argues that:

The universal equivalent form comes and goes with the momentary social contacts that call it into existence. It is transiently attached to this or that commodity in alternation. But with the development of exchange it fixes itself firmly and exclusively onto particular kinds of commodity, i.e. it crystallizes out into the money-form ... The money form comes to be attached either to the most important articles of exchange from outside, which are in fact the primitive and spontaneous form of manifestation of the exchange-value of local products, or to the object of utility which forms the chief element of indigenous alienable wealth, for example cattle.

The most plausible interpretation of this quotation is that the commodities that are most likely to become universal equivalents are those that foreigners bring to a community, or those that a community can most easily trade. This view accords with the claim often made by Marx (e.g., 1867: 182; 1939: 223; 1894: 447–8) that the very process of commodity exchange arises where different communities come into contact with each other, rather than within communities.

This point is very important for the purpose of connecting the analytical (logical) derivation of money, which has concerned us here, with the historical emergence of money. Our initial assumption was that bilateral trade occurs among commodity owners who are unaffected by kinship, hierarchy, authority and religion (i.e. they are essentially 'foreign' to each other). This is an entirely justified assumption for capitalist commodity owners, since capitalist producers are in competition with each other and motivated by money profit alone. It is far more difficult to justify the assumption for non-capitalist societies, given that non-capitalist economic interactions are typically embedded in a web of power, prestige, kinship and custom. But where non-capitalist communities and societies come into contact with each other, things can be different. Traders from different communities can be essentially 'foreign' to each other, thus developing mutual relations that are based exclusively on commodity ownership. Under such conditions, the historical and the analytical derivation of money can be made compatible with each other. For our purposes, the request for exchange made by a commodity owner can be thought of as a catalyst for relations among 'foreigners': money is the eventual outcome of trading relations among inherent 'foreigners'.

In view of the historical aspect of money's emergence, it can be assumed that the social custom necessary for the analytical derivation of money pertains to traditional chains of transactions that contain specific commodities. Within any given chain of traditional transactions, it is likely that one commodity would stand out among the others, since a relatively small number of specific commodities come into regular contact with each other in each chain. It is possible that, through pure chance, one commodity within a chain could attract several requests of exchange at once, thus becoming a transient universal equivalent. However, given the element of chance and the existence of several chains of traditional transactions, it is also possible that more than one commodity would play this role at any given moment, or during a period of time. Thus, several partial, local 'monies' are likely to emerge spontaneously and incessantly.

Nevertheless, the appearance of even a single temporary universal equivalent immediately creates an asymmetry among a given set of commodities. This asymmetry sets in motion economic mechanisms that exacerbate it to the point at which a permanent universal equivalent eventually emerges. The source of the asymmetry is the stronger ability to buy temporarily acquired by any commodity that attracts several requests for exchange. This temporary ability constitutes an additional use value ('to be able to buy') for the given commodity, which Marx (1867: 184) calls a 'formal' use value. Once the 'formal' use value has emerged (even temporarily), further requests for exchange are likely to be attracted, thus strengthening the 'formal' use value, and attracting still more requests for exchange.

This is a self-reinforcing process that could eventually lead to emergence of the 'general' form of value. But at any moment in time, there are likely to

be several universal equivalents competing with each other.¹¹ Each would be unable to buy some of the commodities belonging to the set of relatives of another. Moreover, in the presence of several universal equivalents, exchange value would lack a single representation across the process of exchange, and hence it would not be a universal social norm. Passage to the 'money' form of value resolves these difficulties, but that involves further social custom.

4.4 The 'money form'

The 'money' form is given by:

1 of $A \rightarrow u/x$ of C

1 of $B \rightarrow u/y$ of C

1 of $D \rightarrow u/z$ of C

The position of the equivalent has been completely and stably assumed by the money commodity, C , which thus monopolizes the ability to buy all others. At the same time, C represents commodity value simply and homogeneously (i.e. as money price) across the process of exchange. Put differently, a prevalent social norm now exists for commodity owners to bring their commodities to market with the express intention of exchanging them for money (i.e. already priced in money terms). Equally, there is a prevalent social norm that the holder of money could potentially obtain any commodity, since all are priced in money in advance.

Passage to the 'money' form involves further social custom. Any commodity can acquire the 'formal' use value of 'being able to buy', but some commodities are better suited in physical terms (durability, homogeneity, divisibility and portability) for this purpose. The best-suited commodities are the precious metals since they are exceptionally durable, homogeneous, finely divisible and portable. Since gold and silver have also been historically used as costly jewellery and for ostentatious manifestation of wealth, commodity owners are habituated with the notion of precious metals representing value. Gold eventually monopolizes the ability to buy (it becomes the sole independent representative of value) partly because of its physical properties, and partly because of the social customs attached to its use. Having reached the position of money, the use of gold becomes a social norm in itself. Commodity owners expect the money commodity to be gold, and they also assume that their commodities should be priced in terms of gold. These expectations are fulfilled through the regular and customary practice of offering commodities for sale against gold.

5 Conclusion

This chapter has put forth a theoretical analysis of the process of emergence of money, drawing on Marx's discussion of the form of value and leaving

¹¹ Strictly speaking, therefore, they would not be universal. But the point is clear, irrespective of terminology.

aside the substance of value as abstract human labour. The roots of money lie in the elementary value relation. Specifically, they lie in the relationship of 'relative-equivalent', interpreted here as 'request for exchange-ability to exchange directly' (or 'offer to sell-ability to buy'). This relationship unfolds dialectically in the course of commodity exchange and leads to emergence of a single universal equivalent. By the same token, the universal equivalent monopolizes the ability to buy, this also being the specific economic content of money. Social custom with respect to both traditional chains of trading and wealth representation was shown to play an important role in inducing emergence of the universal equivalent.

The essential 'foreign-ness' of commodity owners (i.e. the absence of explicit social ties outside the process of exchange) underlies money's emergence. To engage in economic relations, 'foreign' commodity owners require an opening gambit, which eventually becomes the social nexus of money. Money's ability to buy subsumes social relations among commodity owners, reflecting their extraordinary estrangement from each other. Thus, money is the social medium that binds commodity owners, allowing them to express their volition to each other and to the market as a whole. For this reason, possession of money confers economic and social power. This approach to the riddle of money also offers a way of reconciling the analytical (logical) with the historical emergence of money.

Finally, commodity money is only a form of the universal equivalent, though one of exceptional analytical and historical importance. It is inevitable that in an analytical framework comprising only exchanges among commodity owners, the initial form of money would be a commodity. However, if other aspects of the capitalist economy were brought into account, such as the state and the credit system, the universal equivalent would tend to assume further forms (fiat, bank notes, bank deposits, money market fund deposits, and so on).¹² In all its other forms, none of which can be immediately assumed inferior to commodity money, the universal equivalent remains the monopolist of the ability to buy.

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¹² See Lapavistas (1991).

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7

Value and Money

Christopher J. Arthur¹

Value-form theory generally is inspired by Marx's stress on the importance of value as a social form, and his criticism of classical political economy for neglecting this aspect of it. But applying this approach in a thoroughgoing and consistent way leads to a *reconstruction of Capital*. This chapter is not, then, intended as exegesis.

My 'value-form' approach to money holds that money is no 'veil' of the 'real' material content of economic relations; it is essential to value relations, not merely the shape in which an underlying matter is expressed. This view contrasts with that in which money is of importance merely as a numeraire. I argue that only money makes value *actual*. I then investigate the concept of 'measure of value' because it is this function of money that most inclines Marxist theorists to argue that real money must be a commodity. Finally I briefly discuss the determination of the magnitude of value, and of production price. In my view, the categories 'socially necessary labour-time', 'value', and 'price' emerge from the systemic interactions of a complex whole, rather than being presupposed to its development.

1 What is value?

At first blush value may seem definable as a *relation*, namely that in which a commodity exchanges against other commodities, or against a selected standard commodity such as gold. But a theory which traces the exchange relation to something intrinsic to commodities must define value as the *power* of drawing other commodities in exchange possessed by a commodity in virtue of this intrinsic feature. On the former view exchange value is not distinct from value; but on the latter view the value commodities possess is *expressed* in exchange value, which thus serves as its *measure* because a power is only known in its effects.

¹ The author thanks the Lipman–Miliband Trust for assistance with conference travel.

Notice that my *definition* of value as a 'power of exchangeability' does not make reference to what it is that grants commodities this power, or to any theory of the determination of its magnitude. It is a common move as theories develop to supplement the original abstract definition with a 'real definition' embodied in the theoretical framework. For example, pneumonia is no longer defined by its symptoms but by the presence of a certain bacillus. When Legionnaires' disease presented pneumonia symptoms, and the bacillus was not found, instead of saying that the theory had been refuted it was said the patients were *not* suffering from pneumonia at all. So theoretical connections established between value and labour may change our definition to one on which only produced commodities qualify.

It may be claimed that reference to labour should be included even at the most abstract level of determination of the value concept, because the entire value-form problematic springs from the social division of labour with its consequent contradiction of a labour that has to be simultaneously private and social. The plausibility of this argument is undermined by the peculiarly abstract character of the value-form itself: insofar as it resolves the contradiction through an exchange system socially associating the products of dissociated producers within a universal form, namely value, it *overshoots* the parameters of the original problem. The commodity form is so empty of given content that it not only allows the conjugation of the variety of goods produced in private enterprises, but the inscription of all sorts of other heterogeneous material (such as art works). The most abstract level of analysis of the value concept is therefore that of a *pure* form of association bare of content. Hence it should be possible to present a value-form derivation of money without simultaneous reference to the commensuration of labours. The dialectic of the value-form should have expositional priority insofar as it has a certain autonomy from its mediation of dissociated labours.

However, the requirement of concretion yields the theoretically argued identification of products of labour as the only content adequate to the self-determination of the form. Anent the excluded cases, such commodities have the *form* of value but are empty of its proper *content*. They have commodity form but their exchange values are not determined as expressions of a value content predicated on capitalist production.

2 The actuality of value

Money is necessary to make value objectively present in exchange relations because the actuality of value cannot be established through the analytical reduction of the extremes of a simple exchange relation to value as such. Such a move reaches at best an unproven hypothesis: that the commodity form may not be empty of determinate content. Moreover the analytical reduction is premised on a counterfactual, namely that an exchange system without money supports equivalence relations that are reflexive, symmetrical

and transitive. But in such a network transitivity would fail empirically as often as not, and numerous inherent opportunities for arbitrage would always be theoretically present. These considerations lead me to underscore the importance of Marx's derivation of money in the section on the forms of value.² If it is said that, since value is here presupposed, the only thing at issue is to generate its adequate form of appearance in money, then I reply that 'essence must appear' (Hegel 1817: 199): if it does not do so then it lacks actuality. Money, posited as the universal equivalent form of value, is itself essential to the actuality of value, and indirectly to the positing of labour as abstract.

A running theme throughout Marx's discussion of money is the *opposition* of money to commodities. Even in the simple form of value, the 'germ of money', the commodity in equivalent form is present only as the material in which the value of the first commodity is given. Gold has no price; it is price in virtue of the formal role it is given as the universal equivalent. Moreover in *Capital* Marx reaches a startling conclusion, if we remember that he posed as his starting point the elucidation of the conditions under which value is intrinsic to commodities. After showing the necessity of money he states that, without it, commodities stand to each other merely as use values (Marx 1867a: 158, 180); and he concludes that when gold 'functions as money' it is 'fixed as the sole form of value, or, in other words, as the only adequate form of exchange value in the face of all the other commodities, here playing the role of use-values pure and simple' (Marx 1867a: 227; note that 'form of value' is not here *Wertform* but *Wertgestalt*, referring to the shape in which it is presented). Money is 'the independent presence [*Dasein*] of exchange-value, the universal commodity' (Marx 1867a: 235).

In the first edition of *Capital* Marx draws a very illuminating analogy to make the strangeness of this relation clear: 'It is as if alongside and external to lions, tigers, rabbits, and all other actual animals... there existed also in addition *the animal*, the independent incarnation of the entire animal Kingdom' (Marx 1867b: 27). This example is a reminiscence of Hegel's point: '*Animal as such* cannot be pointed out; only a definite animal can ever be pointed out. *The animal* does not exist; on the contrary, this expression refers to the universal nature of single animals, and each existing animal is something that is much more concretely determinate, something particularised' (Hegel 1817: 56). The peculiarity of (commodity) money is that as 'the universal commodity' it *can* be 'pointed out'. The universal aspect uniting commodities is presupposed to be value, and in money this universal is posited as 'a thing' beside them.

Although commodities and money fall into 'an external opposition which expresses the opposition between use-value and value which is inherent' to the commodity (Marx 1867a: 199), these elements cannot really exist as

² For a reconstruction of this derivation, see Arthur (2004).

such, but only in a polar *relation* to each other. Commodities are posited as bearers of value insofar as their realization in money prices reflects this dimension on to them; conversely, value cannot exist autonomously as money because money proves itself only in realizing its purchasing power in use-values.

If it is assumed that commodities as such *are* values, money supplies its common measure, and the most suitable such measure is a numeraire, a commodity such as gold, *representative* of them; but a written *representation* of value may also serve. However it makes no sense to presuppose that the commodity as such *has* value. Value has a purely social reality, and it emerges from commodity relations. Hence the universal aspect of commodities is secured only insofar as they posit it through their common relation to a universal equivalent, namely money. This money form does not *represent* the presupposed 'value' of commodities; rather, it *presents* it to them as their universal moment. Money is not a *re*-presentation of something given in commodities, but the only way of making value *present* (i.e., being there [*Dasein*] concretely, rather than as some unreal abstraction); it *is* the actuality of value. Once value is thus presented explicitly 'for itself' (rather than a mere immanence) in money, it posits the commodities as values 'in themselves'.

Although gold seems a *representative* commodity, it becomes through its form-determination *antithetical* to commodities, excluded from them so as to present in objective shape what they must *exclude from themselves*, namely their supposed value content which they cannot bring to light in their own 'stuff' but only in the material of what stands over against them, money. Money must exist apart from commodities so as to present a unitary value dimension to them. An analogy would be that the King has powers exclusive to himself so as to bear in his person national sovereignty, not just against other realms, but against the anarchy of his 'natural-born' subjects, on the assumption they cannot be *self-determined*. He presents to them their unity as *other* than they; hence he is not merely their representative but their ruler, even though he is King not by nature, but only because they posit themselves as subjects. In the same way money is sovereign even if originally a simple commodity. It is much more than a *representation* of the unity of commodities, just as a King is more than the representation of the country, for which a purely symbolic figure such as 'Britannia' would suffice; as King he must *act* so as to secure national unity.

Money 'posits the presupposition' that commodities count as values. If paper money issued by the state is socially accepted, this positing of value is accomplished by something which has no value of its own and whose sole use value is precisely to act as the independent existence of value. If this money has the power of purchase socially ascribed to it, its material bearer is of little consequence.

In circulation inconvertible paper does not 'stand for' gold, it 'stands in for' gold.³ What is the difference between these expressions? The name in lights 'stands for' the actor, but the understudy 'stands in for' the actor. They assume the same *actual functions*, not symbolical ones (even if they lack the glamorous shell of 'star quality'). The understudy is adequate to the purpose of *presenting* the role, not as a *representation*, more or less inadequate, of the 'star', such as a cardboard cut-out. It is a mistake, then, to think inconvertible paper is a *representation* of 'real money', which therefore necessarily is an inadequate substitute for the real thing. It *is* in fact money insofar as it presents adequately value for itself; this it does not by being a *representative* commodity value, or by being a *representation of* value, but by playing the role of *presence* of value. It *stands in for* gold functionally, rather than being a representation of gold, *standing for* it.

3 The measure of value

While Marx allows that in its function as currency the state may replace gold with paper, he insists that in its function as measure, commodity money cannot be replaced, even if it may so function 'ideally', namely, in its absence (Marx 1867a: 224; 225 n.55; 227).

I approach this issue in two stages: the first level is naturalism; the second the difference made by value-form theory.

Regarding naturalism, in physics I distinguish three kinds of measure. The first is immediate comparative measure. Examples include a beam balance and a ruler. Here the *measure* shares the same *inherent dimension* with the measured, namely, weight and extension. We can do comparisons (greater, lesser, equal) and we can set up a standard gram and metre to serve as numeraire. So immediate measure is possible because both things (measure and measured) are in the same dimension and this property is something they 'have' *prior* to the commensuration and it offers itself for measure through immediate comparison.

Second, we have indirect measure. Examples include a spring balance and a mercury thermometer. Here the measure is extension (the extended spring, the expanded mercury column), which is foreign to what is to be measured, namely, a force and the vibration of molecules. We have a theory of determination which allows us to translate backwards. The cases are different in that the thermometer is a very indirect external measure of heat and the 'real' measurable almost unobservable. The spring balance is more direct; we equate different types of force (and we can get at weight directly as in the last paragraph).

³ This distinction between 'stand for' and 'stand in for' was drawn to my attention by Joan Safran.

Third, some dimensions are 'rock bottom' (e.g., extension and mass), but others are complex (e.g., work). Work is a function of force moving across distance in a time; and if we could measure these three we can calculate the magnitude of work units.

Now suppose we could apply all this to value defined as power of exchange possessed by commodities. There is an *immediate* measure of value in commodity money. This is distinct from value's determinants but, if we have a theory which determines the immanent magnitude of value by that of labour time, it can be measured by calculation. On such a naturalistic view it may be said that labour time is an indirect immanent measure of value and that money is an indirect external measure of labour.

Now let us turn to the impact of value form theory on the above scheme. The linearity implicit in it must be replaced by a concept of the interchanges of measure and measurable.

Money is not simply the provision of a standard of comparison for commodities already inserted in the value dimension; it *constitutes* the value dimension. At first sight one may think that it is the field of exchange that constitutes the value dimension, just as a gravitational field brings masses into a weight dimension. The commodity has no value in isolation but, when acted upon by the market, it acquires this property (power of drawing other commodities in exchange) in proportion to its socially necessary labour time, and this is expressed in its relations with other commodities according to the strict logic of equivalence. The problem with this is not simply the lack of a numeraire, which would be necessary in practice to iron out arbitrage. The problem is ontological; discrete exchanges set up only an incoherent morass of 'molecular' spaces of value, which have no necessary relation to each other. There would be a chaotic jumble of transient exchange 'values', but no homogeneous value space integrating them in a common universe. (Compare the innovation of pictorial perspective. The point of origin is not *in* the picture, but has to be postulated to make the picture coherently represent 'depth'. Money makes the value dimension coherent.) In Kantian terms, money achieves the synthetic unity of the value manifold by situating commodities in a common relation to a single point of view *on* them which is yet not *among* them. The monetary form is the condition of possibility of a unitary sphere of value relations. As a point of view *on* commodities, commodity money must be excluded from this sphere and have no price itself. If this is so, then in principle a non-commodity money could achieve this transcendently necessary act of synthesis.

In a naturalistic paradigm measure is an intervention into already constituted dimensions and relations of determination, whether through immediate comparison or an indirect one. But in the case of the purely social substance, value, it is the social practice of commensuration in exchange that posits what is presupposed in such measure, a homogeneous value dimension. Money serves at the same time as incarnation of the measurable

(value) and standard of the measure (one dollar). Money is not therefore *a* measure of value; it makes value a measurable entity as it *is* the form of value *as measurable*. It is not that the commodities themselves have a common value dimension subsequently given a metric by money. Our practice of pricing commodities creates this value dimension ideally.

Only through the mediation of money may such other social dimensions of commodities as their representation of abstract socially necessary labour be secured. We have seen that indirect measure is possible if there is a relation between what we want to measure and some other measurable entity; insofar as social practice so acts as to make paper money a function of the value determinant, such a measure is adequate to the relative values of commodities, just as a spring balance measures weight even though springs are not heavy.⁴ If we are looking for something measuring value defined as a power of exchange then something which *is* just that, namely that which has immediate exchangeability, is a perfect form of measure; and if fiat money has such social acceptance then it is an adequate measure regardless of the fact it does not itself embody labour. Insofar as such money validates commodities and hence labour, what other measure is required?

However, does not the value of money itself require a measure? Here Marx's view is defective. He says: 'The expanded relative expression of value, the endless series of equations, has now become the specific relative form of value of the money commodity ... We have only to read the quotations of a price-list backwards, to find the magnitude of the value of money expressed in all sorts of commodities' (Marx 1867a: 189). But this overlooks two interesting circumstances. First, the whole point of the form of value is to allow a commodity to express its value in another because it cannot express its value in its *own* natural body. However, money *does* embody value in itself because it fixes a peculiarity of the equivalent form, namely that its use-value counts as value. It has no need then to *measure* its value in some other commodity. As the embodiment of value what money expresses in its relations with other commodities is its embodiment of *purchasing power*. In effect Marx goes back behind money to the bare *commodity* status of gold, losing the peculiar shape it has *as money*. Second, the expanded relative form of value is not an adequate expression of value in any case, just because it has no unity. Each particular equivalent is incommensurable with the others. They may be forcibly unified only by assigning an arbitrary weight to each in the construction of an index. Selecting such weights on the basis of a 'normal' consumption basket demonstrates all too clearly that *use value* considerations have hegemony. This is a form of barter, not an adequate form of *value*.

⁴ Should uncertainty arise about the relation of money to the value determinants there will be currency perturbations (e.g., those consequent on imports from the New World) or outright currency collapse (e.g., hyper-inflation of paper money).

4 The source of value

So far, in discussing the definition and measure of value, I have not found it necessary to draw on a theory of the source and magnitude of value. I now address those issues. Here Marx's theory of the determination of value by labour is assumed. But, while labour is the *source* of value, and what determines its *magnitude*, it is *not itself value*. Once theory has concretized the concept of 'value' sufficiently to recognize its origin as one of the moments of value itself, then 'value' becomes a *three*-place concept: the source of value is labour, but value must express itself in exchange value. Value, not labour, is what underlies exchange-value, but labour is the source of value and determines the magnitude measured in money.

It is often claimed that the immediate measure of value is labour-time. For example, Ricardo confused the search for the source of value with the search for a measure of value; so the measure of the source was illegitimately transferred to that of the result. However, if value *were to be* measured in labour time then the substantive thesis (or core theoretical proposition) that the magnitude of value is determined by socially necessary labour time reduces to the uninformative tautology: labour time is determined by labour time. It is not unimportant therefore that once Marx develops the price form he invariably gives values in amounts of money and never in labour time. Throughout all three volumes value is given in pounds, shillings and pence.⁵

The most interesting claim to consider here is that value and labour are inseparably linked in the core of Marx's theory through a 'real definition': the 'substance' of value *is* objectified labour, just as water *consists* of H₂O molecules. But even were this to be accepted, the dimensional distinction is still essential: labour is an activity taking time and value is a power of exchange measured in money. This is supported by the just-mentioned analogy. Water appears as a homogeneous, continuous, divisible fluid appropriately measured by volume (e.g., litres). As H₂O it is a discontinuous aggregate of discrete molecules measured by number. Given the same temperature and pressure, two samples of water that have the same volume will be 'made of' the same number of molecules. But volume and number remain utterly different measures. We may – very artificially – talk of a litre of H₂O. We may equally artificially talk of a dollar's worth of objectified labour. But the immediate measure of labour is time and that of value is money.

One place where Marx conflates the determination of the magnitude of value with that of giving a measure of it is when he speaks of an 'immanent measure' denominated in labour time, contrasting with the 'external' measure in money (Marx 1867a: 188). However, strictly speaking, this makes no sense because values are always determined by the *relation* of labour times to

⁵ This has often been pointed out by Fred Moseley, who also draws attention to the relevance of this for contextualizing the transformation procedure.

each other, so six hours, for example, is not any sort of measure of value unless it is correlated with other labour times, both those in the same branch and those in other branches. In speaking of 'immanent measure' here (rather than 'immanent determinant'), Marx introduces a categorial confusion between the source and the measure of value.

5 The magnitude of value

Before discussing the determination of the magnitude of value in a value-form theory perspective we must clear out of the way a prevalent conception of determination based on the notion of 'production' with all its associated physicalist metaphors. It is said that just as concrete labour produces use value so abstract labour produces value. I think this way of thinking is entirely unhelpful. Value is not a material thing so it cannot be produced in the ordinary way. The commodity is produced by labour; then when it is validated through sale as a bearer of value the social labour objectified in it counts as abstract. But there are not two different labours and two distinct products; there is one labour and one product but above this *material* fact an 'ideal' fact is posited by money: namely, that the product is socially cognized as value and its source cognized as abstract labour. What of Marx's claim that a good 'has value only because abstract labour is objectified' in it (Marx 1867a: 129)? Here we have in play socially constituted forms; so labour is posited as abstract by the practice of exchange, and the commodity is posited as a value likewise. Labour, taken in this context as an abstract activity, posits its 'objectivity' in value. So in a sense value just is what is objectively posited by abstract labour. But the objectivity of value is no material stuff; it is the social recognition of the result of labour qua result, not qua useful article. As such, immediately it is a spectral objectivity, a congealed blob of undifferentiated human labour, consubstantial with the product qua use-value. But the objectivity of commodities as values appears phenomenally when, as money, it appears to us as a thing.

At what point does this abstract labour determination first arise? There is some confusion over this because Marx unwisely treats the determinants of value in the context of the forms of simple circulation; he should have postponed the issue until the turn to production is situated in the context of the capital relation. As it stands, Marx's exposition gives rise to the mistaken view that the value form, and such associated categories as abstract labour, result from the abstraction carried through in exchange alone, as if production were a purely asocial material process. Once production is understood to be capitalist production such a dichotomy of production and exchange may be seen to be inadequate. Capitalist production is itself value formed. The means of production already have a value form (so-called 'constant capital'); labour appears as wage labour: that is, labour systematically alienated from the immediate producer so as to ensure the valorization of capital.

From this point of view capital treats all labours as equally available for exploitation. Thus labour is already counted as abstract in production, not merely when it is reified in the commodity.

The question finally to be considered is that of the determinant of the magnitude of value measured in money. If it is true that at the root of value magnitudes lies something *given* to the value form prior to its being formed as value, namely the actual (concrete) labour expenditures, it is equally true that such times are thoroughly transformed and translated into ideal magnitudes of *socially imputed* (abstract) labour-times as a result of the form determination of material production by capitalist competition.

Let us list some of the reasons for the failure of labour-time to appear in linear fashion in the value of the product: the enterprise may be carrying an abnormal number of 'lazy' (better 'recalcitrant') workers whose labours must be discounted such that N hours of actual labour count the same as $N - X$ socially necessary hours of labour; the enterprise may be using outdated techniques such that even willing labourers produce fewer items than the same workforce could produce in a standard factory, so once again these actual labours have to be discounted; an abrupt change in production methods may lower the time to reproduce such commodities below that of stocks still existent, so these are devalored, and the effect is the same as that of the previous case. Thus a linear causal sequence does not apply in the individual case, but neither does it apply when it is assumed value is determined by socially necessary labour-time. This time is meaningless until it is put into *relation* with those established in the production of *other* types of commodity. The *weight* of a product does not depend on the changing weights of others, but its *value* is so related to the conditions of production of other products. It is true the actual labour-times are a given context for the formation of socially necessary labour-time, and that this in turn is a given context for the determination of value magnitudes, but the *form* of value is such that what counts *socially* results from 'systemic causality'; the values of commodities are co-determined, not 'produced' one by one. (As I accept labour is the sole source of value, that out of which capital creates value, it follows that purely *market* phenomena introduce a distinction between price and value, or since value is always expressed as a price, between a price that reflects an essential form of value and prices subject to contingencies arising outside the form of capitalist *production* itself.)

For my value-form approach the magnitude of value is determinate only insofar as the form of capitalist competition itself recognizes labour as counting abstractly and as measured by time. The determination of the magnitude of value by labour-time obtains only under the condition that labour-time counts only insofar as it is *systemically* determined as necessary. Moreover, only capitalist competition makes 'socially necessary labour-time' a reality. There is a world of difference between the peasant saying 'Time costs nothing' and the capitalist adage 'Time is money'!

It is important to distinguish the qualitative issue of the constitution of labour as abstract from the quantitative issue of the determination of socially necessary labour-time. While the former has certain preconditions (primarily the flexibility of labour) it is in form purely *social*, the *result* of the inscription of the product in the value form, and the actuality of value in money; the latter, while itself presupposing the reality of abstract labour, is primarily derived from *material* considerations, and hence may be posited as the determinant of the resulting value magnitude.

If value is not 'produced' materially, then the production of a commodity is not equivalent to producing its value. This allows value to be *redetermined* when re-presented at each level of concretion of its expression. This applies to the determination of prices of production. If value is not finally socially formed except under the *full conditions* of capitalist production, the distinction between *Capital I* and *Capital III* cannot be that between production and distribution of value. When we look at capitalist production we find there is the addition of new labour, supposed to result in new value, but there is also the so-called 'transfer' of constant capital to the final commodity through its productive consumption. The workers do both things at the same time since their labour is not pure activity but work *on* materials *with* instruments of production, both getting used up. The productivity of labour *includes* its power of shifting constant capital to the final product such that it is renewed rather than lost along with its consumption.

Now I suggest what counts as socially necessary is no longer simply that reproduction time which is normal *within* a branch, but that time relative to the productive power of the labours in *different* branches. Production may be organized *within* a branch of production efficiently, yet in this one respect differ *between* branches, namely in the mass of constant capital set in motion by each unit of labour. Hence some labours may count as multiples of other labours, in proportion to their effectiveness at resurrecting constant capital.⁶ Those branches which are more labour intensive have 'wasted' labour, so to speak, just as much as those less efficient firms within a branch, because they effectively use social capital less productively than others. This is signalled by the formation of prices of production, co-determined by the general rate of profit. So, just as intra-branch competition leads to labour-time being recalculated according to the socially necessary labour time within the branch, so inter-branch competition leads to socially necessary labour-time being recalculated according to average organic composition over industry as a whole. (One might even speak of a socially necessary power of consuming

⁶ Marx speaks of skilled labour within a branch of production counting as a multiple of simple labour. I agree; but in addition I am suggesting that labour of a given skill working in a capital-intensive branch 'counts' for multiple units of similar labour working in others.

capital.) Some hours of labour 'produce' more or less 'value' (here that returned in production price) than others.

The time paradoxes of relativity theory provide a helpful analogy. Processes have a homogeneous time dimension only relative to an inertial frame of reference. If a spaceship leaves earth at a high speed the time taken to boil an egg in the spaceship will take the usual three or four minutes to the cook; but to an observer located on the earth it will take longer. By analogy, the time of production is not absolute; it is always measured in the context of a common frame of reference. The comparison of the different frames of reference predicated on different organic composition means that labour-time in capital intensive industries is 'speeded up' relative to the average and *counts for more*, while labour time in labour intensive industries *counts for less* because the hours pass more 'slowly'. (I stress these relative weights are *social determinations*; the workers involved *experience* their labours as having the same intensity, because their frame of reference is the factory.) Since value is fully determined only when the movement of capital itself has brought into play all necessary moments of it, production price is the *finished form of value* at the level of concretion of the competition of real capitals. This view of production price has two corollaries.

First, there need be no conservation of measure when the value form is concretized. Even in physics there is a lack of conservation of magnitude when different forms are compared. H_2O is water *and* ice, but when the same sample passes from water to ice there is no conservation of volume; its magnitude is larger in the second form than in the first. Ontological conservation of its 'Being' does not require conservation of the measure of magnitude, because the magnitude changes with the metamorphosis. In our case what is conserved is the mass of products and their distribution between classes. But different measures of this 'stuff' are possible, indeed necessary. The simple prices rooted in *Capital I* determinants of value flow from the original constitution of the capital relation as a struggle over the extraction of surplus labour. Production prices are appropriate to the more concrete level of inter-capitalist competition determining the allocation of the social surplus product. Just as the same material has two measures in the water/ice example, the same value is appropriately cognized differently as it bears the imprint of different social relations, and *both* are needed for a complete account. It is the very same surplus value measured according to simple prices that is divided between capitals as 'hostile brothers', but in taking account of their different compositions (an irrelevance in the context of the class relation) they remeasure the surplus (as if, lacking vessels, we could divide water only by first freezing it).

Second, if value is not materially 'produced', but a way of socially cognizing what is produced (commodities), then it cannot be distributed via the mechanism of the value-form itself. The counterintuitive idea of a 'substance' that is 'transferred' after being 'produced' in a different site must be

avoided. (Money is distributed to landlords and financiers, but we do not see one capitalist paying over part of his profit to another; this is a very 'notional' transfer!) The formation of a uniform rate of profit is not a way of *distributing* value; it is a way of redetermining value when the level of capital in general is sublated in competition.

6 Conclusion

Instead of understanding so-called 'labour values' as ontologically prior to money prices, the position adopted here is that order and regularity in the inter-relations of units of capitalist production is possible only because there is a form of value, namely money, as a precondition for it. Only *once* this form of commensurating products obtains is there any meaning to the supposition of a law of value rooted in labour time and appearing as price. The money-form structures such determinations as socially necessary labour time, deciding to what degree actual labour times are socially validated, or replaced by socially imputed amounts of labour. Once it is understood value is necessarily measured in money then 'prices of production' may be interpreted as more 'finished' measures of value than 'direct prices', albeit that in this form the thesis that the source of value is labour becomes obscured by the refusal of capital to treat all labours as equal when recalibrating labour times.

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8

The Monetary Aspects of the Capitalist Process in the Marxian System: An Investigation from the Point of View of the Theory of the Monetary Circuit

Riccardo Bellofiore

1 Introduction

Karl Marx's critique of political economy is a unique case in the history of economic thought. To speak of monetary 'aspects' of the Marxian system is not enough even, because what he offers is *a view of the capitalist economic process as a whole* where production, circulation and distribution are deeply affected by money and finance, so that any dichotomy between the 'real' and the 'monetary' is futile. Indeed, if there is an author for whom the label *monetary theory of production* is appropriate, this is Marx.

However, the peculiarity of Karl Marx does not come *only* from his analysis of the capitalist process as a *monetary sequence of successive and intertwined phases*. The same point was at the heart of Wicksell's *Interest and Prices* (1898), Schumpeter's *Theory of Economic Development* (1911), and Keynes's *Treatise on Money* (1930). These authors (see Bellofiore 1992, 2004b) stressed how *bank finance to production* made either *dynamic* or *structural instability* the norm, allowed *innovative behaviour* and *intra-capitalist competition*, and let the capitalist class determine *real* distribution of income and of productive resources irrespective of apparent consumer sovereignty. The *uniqueness* of Marx within this heterodox stream in macro-monetary theory lies in the fact that his approach was *embedded in his abstract-labour theory of value and surplus value* as a theory of *exploitation*.

With few exceptions, attention to the *cycle of money capital* in Marx is a relatively recent phenomenon. One of the earliest of these attempts going back to the late 1970s–early 1980s may be the re-reading of Marx provided by the *theory of the monetary circuit* (TMC: a detailed survey can be found in

Graziani 2003). This chapter presents a concise review of Marx's *monetary* labour theory of value and demonstrates that TMC assists in a reformulation that overcomes some of Marx's problematic features.

2 The cycle of money capital and the theory of the monetary circuit

In TMC the capitalist process is depicted as a 'macro' and 'monetary' *sequence of successive concatenated phases set in a discrete time interval*, rather than as timeless simultaneous exchanges. A *triangular* structure of agents is assumed: the banking system, the firm sector *as a whole*, and the *totality* of wage earners. The capitalist *process* is initiated by banks' advances to firms. These latter can then use this purchasing power to make monetary payments for inputs to be used in the production process, with a view to selling the output on the commodity market. From a macroeconomic perspective, all firms *taken together* need money *only* to buy labour-power from workers, which entitles them to implement their production decisions.

The *simplest* circuit model assumes a *closed economy without a government sector*; the central bank is part of the banking system. There are *three* phases of the monetary circuit. In the *opening* phase money is created and enters the economy when the banking system supplies the firm sector with the *initial* finance needed to commence production. Firms as a whole need the money to buy labour-power if they are to set the productive process going. Command over the *flow* of credit money provides entrepreneurs (together with banks) with the *power to control the whole process* of allocation of productive resources, followed by immediate production, and then distribution of income and the rate of accumulation. Bargaining in the *labour market* sets the level of the money wage bill and of employment, and it is influenced by the negotiations between banks and firms in the *money market* on the amount and 'price' of finance.

In the *intermediate* phase, firms can use this power of command over productive resources conferred by their money to *actualize their production plans*. The *level* or *structure* of employment, and the *size* and *composition* of output are affected by entrepreneurs' decisions. These choices are led by forecasts about effective demand and may give way to a situation of involuntary unemployment. If we do not consider the possibility of workers' struggles within the labour process, these expectations are completely realized. Only two types of commodities are produced – consumption goods and investment goods – according to how the labour force is allocated.

After production, there is the *final* phase, in which workers freely choose how to divide their *money* income between consumption and saving. The working class can only buy the *real* commodities *made available to them* by firms through their separate and independent choices. If workers' propensity to consume is unity, firms get back *all* the money wage bill from the

commodity market *alone* and pay off their debt to banks. If workers' propensity to consume is less than unity, firms may recuperate the liquidity not spent on consumption goods by selling new securities on the financial market. Thus, firms get *final* finance from *both* the market for consumption goods and the stock market. The monetary circuit is then *closed* with the reflux of the initial finance to the banks and, thus, with the *destruction* of the money originally created. But if some of the flow of money savings is retained as liquid balances – that is, if there are 'losses' from the circuit and liquid balances are retained as *store of value* – firms will *not* get back all the money that they advanced to workers, and the circuit does not get closed. The net addition to the money *stock* merely reflects firms' outstanding debt not yet reimbursed to banks. Because of this, in the next period banks *may* refuse to satisfy the demand for finance from firms, thus leading to a *crisis*.

TMC is constructed around the idea that firms have a *privileged* access to bank credit: that is, firms are able to get purchasing power from banks without being constrained by the prior level of real income or by prior ownership of real wealth.¹ What matters is the *quality* of the project and/or innovation for which bank credit is asked. Banks *evaluate* individual plans of production and supply credit when repayment and the earning of interest seems certain. In this view finance as initial purchasing power is *what determines the real structure of the economy and capital accumulation*. Those who have a privileged 'command' over money claim *real* resources, while those who own only labour-power are entitled merely to a *money* income. Savings, being part of the income emerging after production financed by banks, cannot be a precondition of capital accumulation. This is why firms *as a whole* fix the share of real output that workers acquire in the 'goods market' through the expenditure of their money wage (a point which was later explicitly taken up again by Keynes in his *Treatise on Money* and Joan Robinson in her *Accumulation of Capital*). *Producers' sovereignty*, rather than households' individual inter-temporal preferences, dominates the capitalist process. Money is *strictly endogenous* and *never neutral*.

3 The creation and circulation of money: a Wicksellian perspective

In opposition to the Mengerian view that traces money back to a commodity, TMC claims that money is a *sign* without any intrinsic value. In a pure credit model, like the one depicted by Wicksell in *Interest and Prices*, money consists of bank deposits granted to firms when banks make loans. It is a *credit instrument* in a *triangular* transaction in which payments between payer

¹ Bank credit to consumers is acknowledged by TMC as an empirical fact but it is interpreted as a *roundabout* way to finance firms: cf. Graziani (2003: 21).

and payee are settled by means of *promises to pay* from a *third* agent, nowadays the bank.

Decisions about loans are the *logical* starting-point of deposits. Banking activity is thought of not as mere intermediation between savers and investors but as *creation* of money *ex novo*, without the prior collecting of deposits. Consequently, TMC rejects the mainstream interpretation of the money supply as a multiple of the monetary base, as well as the thesis of a logical precedence of deposits over loans. Even outside a 'pure credit economy', money remains nothing but a debt, regulated by banks in a *social accounting* system where claims to real resources are *differentially* distributed. In a *mixed-money system*, bank deposits and central bank liabilities (reserves and notes outstanding) are a consequence of private bank loans and/or central banks' advances to commercial banks or governments.² Loans make deposits and the banking system faces *no constraint on monetary creation* other than the *limits set endogenously by the real interactions of agents* in the economic system or the *institutional interventions* on the monetary system.

The creation of money in a true monetary economy, without an 'active' state pursuing a deficit or a surplus, can be described in more detail with the help of the Wicksellian framework. In the simplest case of a *single* bank in an *isolated community*, payments are assumed to be made only through book-keeping transfers or by means of the issue of notes in a pure credit economy. With no leakages out of circulation, the single bank can never find itself in trouble. It does not need to keep reserves. The same happens if *multiple* commercial banks expand *in concert*, because no individual bank has to face a negative balance at the clearing-house. Things change if we consider multiple banks who do *not* expand loans in step: the bank which expands faster than the others experiences higher outflows than inflows and must find ways of dealing with its debts. In this case, either there is some *bank of banks* issuing a universally accepted final means of exchange, or again we have to face the problem in a decentralized system of how payments are eventually extinguished. The final clearing could be achieved through direct two party payments *in commodities*, including 'money as a commodity' (e.g., gold). But it could be achieved also through *reciprocal credits* among banks. In an *unregulated* international arrangement we have national monetary areas alongside a world barter, or mere (bilateral) credit, system.

Let us go on to an open economy with a *pyramidal* structure of 'mixed' sign-monies. At the apex, there is a *monopolistic note-issuing bank* which normally has the state behind its privileges and whose customers are mostly nationals. At the base, there are *competing commercial banks*, whose liabilities circulate among a clientele covering only a share of the deposit market. Here

² The only exception is the payment made by the state through legal tender issued by the Treasury, which for TMC is a sign of its *seigniorage* privilege.

we have a hierarchy between two types of money. The commercial banks can find themselves having to make payments through the money provided only by the central bank, and which we suppose to be *legal tender*. They will hold assets from the central bank in readiness for the redemption of their liabilities: hence they will maintain a reserve to obtain refinancing if need be. The central bank, in turn, can be required to settle uncompensated foreign purchases that will induce it to hold reserves of some commodity as a final means to extinguish its debts (unless central banks are prepared to grant each other unlimited credit). In this situation the conclusions reached for the single bank and for banks expanding at the same pace in a closed economy no longer apply. Both commercial banks and central banks are obliged to keep reserves in legal tender and in 'money as a commodity' respectively.

Different conclusions are reached in the case of a *closed* economy with *multiple monies*, which is equivalent to the fiction of the global economy with a World 'Bank of Central Banks'. The overall amount of credit extended by the commercial banks still depends on the amount of high-powered money chosen by the central bank, yet in this case there is no need for the central bank to set aside reserves in 'money as a commodity'. Supposing the commercial banks are not acting in concert, they need to hold reserves; but, in a closed economy, the central bank *does not*, and can expand its liabilities at will. We are, in fact, back to the case of the 'single' and 'unique' bank.

This picture can be easily adapted to the case of the *global* economy with a *three-tier* banking structure. Allowing for *convertibility* of commercial banks' liabilities in some metallic currency within national borders, or for an *external drain* of 'money as a commodity', the reserve ratio of the commercial banks or of the national central banks in an open economy will tend to rise. This does not threaten the *logical* independence of the banking system from 'money as a commodity'. There is *no inner necessity* for convertibility of the legal tender in a closed economy or in the global economy with a (true) World Bank. It is an *institutional* constraint. It must also be remembered that even in an unregulated world system the conversion of banks' liabilities in commodities is only *one* means by which an imperfect offsetting of debt-credit relationships at the clearing-house can be overcome, since commercial or central banks may give each other enough credit to resolve the difficulty.

4 Marx: money and production

TMC regards Marx as one of its forerunners because of the way he depicts the capitalist process, encapsulated in his 'cycle of money-capital' at the beginning of *Capital*, Volume II. The view of the valorization process as 'money begetting money' is already crucial in Volume I where the 'general formula of capital' is introduced. It is developed in Volume III, with the

investigation of interest-bearing capital, credit and fictitious capital. However, the monetary and financial aspects of the process, with a *clear separation between firms and banks*, are not spelt out in Volume I.

The monetary circuit approach considers this separation as a *defining feature of the capitalist social relations* that cannot be abstracted from as soon as it is clear that the commodity 'producers' in the generalized capitalist exchange at the beginning of *Capital* have nothing to do with a 'simple commodity society', and are nothing but *capitalist firms*. Their production needs a *prior* finance. Firms produce commodities but they do not produce money; banks create money but they do not produce commodities. Thus, 'productive' capitalists have to resort to 'monetary' capitalists. This point is obscured by -or, if you wish, it is implicit in- Marx's presentation.

In Volume I, capitalism as generalized commodity exchange is presented as an *essentially monetary* economy. Hence, it is impossible to have any dichotomy between the analysis of value and the theory of money. Value finds its *necessary* form of manifestation in money as the *universal equivalent*, which is at first linked to money *as a commodity*. We have then to investigate *why* 'money as a commodity' seems to be necessary in Marx's monetary theory of value.³ In generalized commodity exchange, individual producers are *dissociated* and in *competition* with each other. The labour of these asocial individuals is *immediately* private and can *become* social only on the market. This happens *indirectly*: each commodity is shown to be equal to other commodities in certain quantitative ratios, to have an 'exchange-value', *inasmuch as the 'value' of the commodity is expressed through money as the universal equivalent*. Money is a *special* commodity with general purchasing power as a result of a process of selection and exclusion that is sanctioned by the state. The equalization of products that takes place in the market is at the same time an equalization of the labours producing them. Thus, labour is not social in advance, but only insofar as its true end-product is money (i.e., 'generic' or 'abstract' wealth). Though it is *only* through money that private labour becomes social labour, it is *not* money that renders the commodities commensurable: on the contrary. Commodities have exchange-value because, even *before* the final exchange on the commodity market, they have *already* acquired the *ideal* property of being universally exchangeable, so that they have the 'form of value'. This property, so to speak, 'grows out' from the commodities as objectified 'abstract' labour (i.e., from the 'substance' of value).

Commodity values are necessarily exhibited as money prices within exchange. The *quantity of money that is obtained by one hour of labour*, in a given country and in a given period, may be defined as the 'monetary expression of labour-time': the *socially necessary labour-time required to produce a*

³ The points raised in this section and the next are much more developed in Bellofiore (2004a).

commodity multiplied by the monetary expression of labour-time gives what has been later called its 'simple' or 'direct' price. Initially Marx makes the assumption that the relative exchange-value between two commodities is the ratio of their simple prices. On this outlook, it is always possible to see through the 'external' and *monetary* measure of the magnitude of each commodity's value, that is ideally anticipated by producers *before exchange*, reaching behind it the 'immanent' measure in units of *labour-time*. On the other hand, to be effective in regulating market prices, value implies a *coincidence between individual supply and demand*. In that case the spontaneous allocation of the private labours of the autonomous, independent producers affirms itself a posteriori on the market as a 'social division of labour'.

Here we have two grounds for an *anti-Ricardian* perspective. Against Ricardo, for whom money is a commodity because it is like and similar to all the other commodities, for Marx money is a commodity inasmuch as it is *excluded from*, and *opposed to*, the entire world of commodities. Also far from Ricardo is the idea that value and price cannot be *fully* thought of starting from a scheme where the methods of production and the real wage are given, and where money is absented. This notwithstanding, and given the level of 'ordinary demand' (a notion that is introduced by Marx in Volume III, ch. 10), the value which 'comes into being' in circulation *exactly corresponds* to the value which congeals as objectified labour the living labour extracted in production.

From Part II of Volume I the capitalist process of valorization is depicted as a process of *money begetting money*, or as a monetary sequence of successive phases. Value and money exhibit nothing but objectified labour on the commodity market. The only source of new value produced in the period is the *living* labour of wage workers that is extracted in production. That labour *in motion* is the use value of the labour-power bought by variable (money-) capital on the labour market. Though the indirect sociality of the labour producing capitalist commodities is eventually sanctioned only on the 'final' commodity market, Marx's position – as Rubin rightly hinted in the 1920s – traces (new) value back to (living) labour, referring to 'exchange' *not* as a separate phase counterposed to the phase of production but as *a form of the whole production process itself*. The determination of value comes out from the *unity* of content and form. More precisely, form arises out of the content – namely, labour – which has been shaped through the capitalist social organization and association. Thus, living labour *as an activity* is subjected to a process of abstraction *already* within the capitalist labour process. Together with the view of 'money as a commodity', this allows Marx to define exploitation in production *before* final exchange (i.e., after the purchase of labour-power on the labour market and its use in the labour process have been effected). In Volume I the inquiry still centres on the capital-labour class relation, without giving a full account of commodity circulation among capitals which is delayed to Volume III.

However, if the essence of money is *not* being a commodity,⁴ it may seem that we are left with disjointed elements: a money capital without any reference to the substance of value at the opening of the cycle; heterogeneous concrete labours in production; and money receipts at the closing of the circuit. It is unclear, then, why money as the external measure of value needs to be linked to labour as ‘substance’ and ‘content’. I think that TMC offers a way out of these difficulties, exactly because here the stress is more about the *monetary* nature of *production* than about the *monetary realization* of the commodity *output*. Finance to production *ante-validates* the expenditure of *living* labour rather than just giving money representation to *objectified* labour. Labour ‘in becoming’ in the labour process may afterwards be pre-commensurated within production through an *organizational and technological process of capitalist homogenization*, and *eventually validated in final exchange* through the metamorphosis with money as the universal equivalent. This imposes on labour the quantitative *and* qualitative properties of being abstract labour spent in the socially necessary measure in the *dual* relation going on in the interaction between the labour *market* and direct *production*. If the firms’ short-term expectations regarding their outlets are confirmed, this *ideal* or *latent* value comes into being in commodity circulation without change to its magnitude. But this must be read not as demand equal to supply, like Say’s Law, but as demand *driving* supply, as in the principle of effective demand.

From this point of view, the necessary link between (new) value and money (income), which has been underlined by most contemporary new interpretations of Marx, has to be grounded in capital’s necessity to extract living labour from its ‘internal other’, a *potentially resistant* working class, to valorize itself. This is the *ultimate* reason why the whole of direct labour spent in the period is the exclusive source of new monetary value, the original argument at the beginning of *Capital* to trace back value to labour being rather inconclusive, or at best a mere presupposition to be posited.

5 Marx: class distribution and the value of money

A definite view of income distribution springs from this theoretical outlook. There is sufficient textual evidence that Marx took the *subsistence* level of the wage as the known datum in Volume I while taking variable capital as *advanced in money*. There he defined ‘necessary labour’ as the labour required to *produce* the means of subsistence. In several places, the ‘macro’ income distribution between capital and labour is seen as the outcome of class struggle, which

⁴ This doesn’t mean to deny the historical phases in which money was at first a commodity. It rather means that the essence of a social phenomenon is not revealed by its first historical appearance, but only when it is *fully developed*.

determines both the living labour pumped out from *all* workers and the necessary labour congealed in the wage goods going to the working *class*. With firms' decisions about the level and allocation of employment being confirmed by the market, these two magnitudes remain *unchanged* throughout almost all the three volumes. With the transformation from 'simple prices' to 'production prices', however, the 'paid labour' *represented* in the prices of wage goods is in general divergent from the 'necessary labour' *embodied* in those wage goods.

Note that a position on the real wage as fixed at the subsistence level is not necessitated in any way by TMC; quite the contrary. Since the wage bill is anticipated *in money*, the real wage may well *not* correspond to the subsistence level. For TMC, money's 'value' is first of all money's *purchasing power* and must be analysed in terms of what money can 'command'. At the opening of the 'macro' circuit we know this can *only* be labour power: namely, workers as *bearers* of the capacity to work and hence of *potential* living labour. The 'value' of money as 'initial' finance is thus the *number of workers* bought by the money wage bill. Workers have to wait until the products are put on offer in order to know the prices of consumption goods and hence their *real* wage. This latter may be known at the beginning of the period only if wage goods are thought of as the outcome of a prior production process sold to the workers before production begins anew (as in Wicksell or Schumpeter), or it may be known after work has been spent (as in Marx or Keynes).

Whatever the road taken, all these authors regard the quantity of consumption goods available to the working *class* as due to *producers' sovereignty*: that is, the real wage for all the workers is in fact, though without a plan, determined by the collective ('unconscious') behaviour of firms all together within limits set by class struggle. The choice made by Marx was to assume a subsistence wage as the *known datum*, as a binding limit to this power of the capitalist class. The justification he gave is that he wanted to give a picture of the capitalist economy in its 'pure' and 'ideal' form (and of course in this way he left out any possible 'moral' criticism of capitalism as 'unjust'). The fact that Marx assumes the real wage as a *known datum* at the subsistence level, even though capital is advanced as a money magnitude, so that the money wage bill must be such as to allow workers to buy the subsistence bundle at current prices, is quite specific to his own version of the monetary sequence.

Thanks to Marx's theoretical choice about the wage the purchasing power of initial finance translates into a determinate amount of labour-time *even when money is not a commodity*. It is the labour-time congealed in the means of subsistence for the number of workers bought at the average daily wage. This can be transformed in the extraction of living labour according to the expected rate of exploitation. In this way we have 'necessary labour' and 'surplus labour'. This actually *replicates Marx's approach to exploitation* in capitalist production.

Once the real consumption of the working class is fixed, once the techniques are given, and once the battle over the length and intensity of the working day is ended, we have determined the *total* living labour expended and the *total* necessary labour going into the commodities made available to workers: hence, total surplus labour. These labour quantities are *independent* relative to the price rule because as long as exploitation and the consumption bundles are given they do not change. The only thing which happens with a change in prices is a *redistribution* among individual capitals of the total direct labour exhibited by money income, something which does not affect directly the fundamental class relation.

In my reconstruction of Marx, influenced by TMC, the 'monetary expression of labour-time', and then its inverse, the 'value of money', are *only* determined in the metamorphosis of commodities with the general equivalent on the commodity market. But it is added that capitalist production needs a monetary *ante-validation*. There is, therefore, a 'value of money' *as capital*, relative to *initial* finance, which is *distinct* and *preliminary* relative to the 'value of money' as the inverse of the monetary expression of labour-time. As was shown before, the purchasing power of variable capital as money advanced on the labour market 'translates' into the determinate labour-time needed to produce the subsistence wage for the working class, and also – assuming the fulfilment of expectations about exploitation of living labour and about future sales on the commodity market – into the determinate socially necessary labour-time extracted by total capital from the working class.

6 Intra-branch competition and finance: Marx after Schumpeter

A non-commodity theory of money as finance is crucial in relation to another important *anti-Ricardian* feature implicit in Marxian theory. Marx's notion of competition has two sides. The Ricardian notion of competition, which is also in Marx, is the *inter-branch* (or 'static') competition: it expresses the tendency to *equalize* of the rate of profits across industries and is the focus of the analysis in Volume III, Part II. However, previously – in Volume I (Part IV, chapter 12) – Marx included *intra-branch* or 'dynamic' competition. This second side of Marx's legacy was a powerful source of inspiration for Schumpeter.⁵ The struggle to secure, if only temporarily, extra surplus-value expresses a tendency to *diversify* the rate of profits within a given industry.

Within a given sector there is, for Marx, a *stratification* of conditions of production: firms may be ranked according to their high, average or low productivity. The *social* value of a unit of output tends towards the *individual*

⁵ The theme of this section is more fully developed in Bellofiore (1985).

value of those firms producing the *dominant* mass of the commodities sold (this, of course, implies that a sufficiently strong shift in demand may indirectly affect social value). Those firms whose individual value is lower (higher) than social value earn a surplus-value that is higher (lower) than the normal. There is, therefore, a *permanent incentive* for single capitals to *innovate* in search of extra surplus-value, *whatever the industry involved*. Starting from a given structure of production within branches of production, the industrial capitalist introducing innovations in techniques or labour organization is forcing other capitalists to follow her or his path: thus intra-industry competition gives way to a fall in social value and thereby an *extraction of relative surplus value*. Relative surplus value extraction depends as much from the need to control the extraction of labour within the capitalist labour process as from the struggle of each single capital against the others within the same sphere of production.

It is here that the consideration of bank finance to capitalist firms as ante-validation of living labour stressed by the theory of the monetary circuit provides new insights relative to past and contemporary interpretations. The credit-money newly created by banks has to be introduced into the theoretical scheme not only as finance to production but also as *finance to innovation*: namely, as the *unavoidable* monetary complement of this latter. Money is an *institutionalized symbol of abstract labour* enabling private activities to form a *social coherence* in a *synchronic* logic: a point which was underlined earlier in this chapter. But it is also and primarily a *private* endorsement of that innovative behaviour by *single* banks within the banking system: a key point for *diachronic* logic and decisive to shape technological trajectories and the methods of production, and then the same determination of 'simple prices' and prices of production. Indeed, this dual perspective on finance is the other side of the coin of the dual perspective on abstract labour read as tentatively social labour exploited by capitals *distinct* and *opposed* to each other on the market. Finance is therefore, *at one and the same time*, 'ante-validation' of the sociality of capitalist planning into the capitalist process by the banking *system*, as well as 'monetary bets' by *individual* banks on the eventual success of entrepreneurs within the struggle among firms in competition.

A confrontation of Marx with Schumpeter is useful on this issue. Marx's theory is, as Schumpeter's is, constructed *out of the equilibrium paradigm* where natural prices assert themselves as resting points of economic activity around which market prices oscillate and disruptions of equilibrium are externally produced. Marx's accumulation is, as Schumpeter's is, not balanced reproduction occasionally 'broken' by crises, but *un-balanced development* where technical change is endogenous, the trend is driven by the cycle, and structural change is the norm. The differences between the two authors are: (1) on the reasons for the endogeneity of innovations, Schumpeter is *silent* about class struggle in production as a determinant; (2) on the role of

bank finance to entrepreneurs as the essential monetary complement to innovation, Marx is *elusive* on its role in accumulation. This role of money is very much *underdeveloped* in *Capital*, as it is easy to check. Banks and bank-money are introduced *only* in Volume III, whereas intra-branch competition has already been considered in Volume I. One reason is the ambiguity in the theory of banking and credit in Volume III, to which I will return in the next section. Another is Marx's theory of 'money as a commodity' and his overwhelming emphasis on the general equivalent at the expense of the crucial role of finance.

For Schumpeter, technological change in the capitalist process is incessant but *discontinuous*: not only within each industry, but also in the whole economy. In the 'circular flow', from which each prosperity has to begin, agents follow *routine behaviour*. There are no unused resources, no profits and interest, no savings. Economic processes merely reproduce themselves on the same scale, and the picture would not be altered even if we substitute an equilibrium growth path to stationary equilibrium. Though production takes time and needs to be financed, production is synchronized, and each supply finds its own demand at the expected prices just covering money costs. Bank credit circulates the same amount of money and may be abstracted from. Money is simply a *receipt voucher* of past production. Therefore, the purchasing power to command the productive resources required to implement new combinations is not available to potential entrepreneurs. In development entrepreneurial action needs to be backed by bank-credit creation. Money a *claim ticket* on resources is now mainly exceeding what has been *already* produced and whose justification comes from the higher quantity and quality of *future* production allowed by innovative behaviour. Banks, says Schumpeter (1970), are the *social accountants* of the capitalist system.

Since innovations are financed by a *new inflow* of money, the demand for labour and other productive resources increases, and so do prices. Inflation is not only an increase in the general level of prices: it is essentially a change in the *relative* structure of prices. Thanks to this initially limited but later generalized revolution in prices, entrepreneurs may carry out the 'new combinations'. The outcome of bank financing is thus that 'new' entrepreneurs *gain access* to resources while 'old' managers of traditional firms suffer a *squeeze* in their purchasing power. When this partial disequilibrium becomes general, innovative activity comes to a halt because of the high level of uncertainty over future sales and prices and the calculation of costs and receipts of innovations is impossible. Prosperity turns into recession; bank finance collapses; deflation ensues. The economic system approaches a different circular flow where profit and interest tend to disappear. This *new* configuration of input and output is *determined by the prior non-equilibrium path* ruled by dynamic competition. Although some elements of this picture have clearly to be amended (among them, the explicit assumption of full employment and the implicit working of Say's Law), the view of bank finance as the

monetary complement of entrepreneurial action fits very well with the Marxian view of competition as 'struggle' among capitals, with a stress on producers' rather than consumers' sovereignty, and with the non-neutrality of money.

The extension of the circuitist re-reading of Marx based on finance to production to include the Schumpeterian stress on finance to innovations opens up new perspectives also on the vexed issue of the transformation of values – namely, 'simple' prices – into production prices. In Schumpeter's evolutionary dynamics there is temporary stability of the methods of production when the system approaches the circular flow. In this situation the 'centres of gravitation' are prices equal to 'simple prices'. In prosperity we have market prices higher than simple prices with unequal profits. Depression leads the system to the definition of a new system of simple prices. The first alternative is to re-frame this wave-like movement for the whole economy in Marxian terms, starting from 'simple reproduction' (at production prices) as an *actual* phase in capitalist dynamics comparable to Schumpeter's circular flow. Production prices are then *real* centres of gravitation. The second alternative allows innovations to be *continuous* in the whole economy, though discontinuous within industries. The tendency to a uniform rate of profit never realizes itself because it is constantly overwhelmed by dynamic competition. Prices of production are only *ideal* centres of gravitation.

7 Marx: money and banking

The sections above have shown how an integration of money as finance to production and as finance to innovation is crucial in reinstating the Marx's theory of value, both as a monetary theory of exploitation (based on class antagonism at the point of production) and of endogenous technical change (including a consideration of intra-capitalist dynamic competition). In this section I consider Marx's theory of money, looking at some features of his theory of banking and the role that 'money as a commodity' plays in *Capital*, Volume III.⁶

In commodity circulation at the beginning of *Capital* money functioned as a *means of exchange* and token money could replace money as commodity. Even though this circulation is capitalist, it cannot be theorized as such because the notion of capital has yet to be introduced. When analysed only with respect to circulation, as *means of circulation*, money is spent by its possessor to buy commodities that have *already* been produced. Its value is determined in the same way as that of all other commodities exchanged on the market, as the inverse of the price level. A person who comes into

⁶ On this, more detailed consideration can be found in Realfonzo and Bellofiore (2003).

possession of it gains a *permanent* title to it. However in *Capital*, Volume III, when money is analysed as *finance* advanced by monetary capitalists (banks) to industrial capitalists (firms) to buy labour-power, it is *lent and borrowed*. Its price is now the interest rate. A person who comes into possession of it gains only a *temporary* title to it. With the interest rate, a new principle of evaluation of money capital arises, different from the one strictly based on the labour theory of value: the *capitalization* of any sum of money. It gives origin to *fictitious capital*.

Though Marx was a supporter of money *as a commodity*, throughout all of his works we find important insights leading towards the opposite idea of money as essentially *sign-money*. In some articles written for *The New York Daily Tribune* and in some sections of the *Grundrisse* Marx appears to understand quite well the credit nature of money and the process by which banks create money *ex novo*. This can also be seen in *Capital*, Volume III, in Parts IV and V. *Interest-bearing capital* is defined as a given amount of money lent to firms to function as money capital for the purchase of labour power. This money, after the loan in favour of the productive capitalist, *flows back* first to the functioning capitalists and then to the initial lender. Under average conditions the money borrowed by firms and employed by them as money capital (i.e., a value sum) has the capacity to produce the average profit *as its use value*. A share of the surplus value must therefore be given up as interest. The interest rate is a *levy* on surplus value. It has no origins other than the exploitation of labour power. The level of the interest rate is an empirical and *conventional* one, since it depends on the relative level of supply and demand, on the borrower's guarantees and on the duration of the loan.

In interest-bearing capital, the capital relationship reaches its most 'superficial' and *fetishized* form. A given money sum seems to automatically produce a greater amount of money as *self-valorizing value*: the product of a mere thing, not of a social relation. The idea spontaneously emerges that gross profits consist of two heterogeneous parts with different sources: interest, from loan capital; profit of enterprise, from the work of supervision and management. Reality is turned upside down. Surplus value, extorted from the worker by the functioning capitalist, disappears from view, interest appears as the specific fruit of capital, and profit of enterprise is seen as a mere accessory in reproduction. In this *inverted* situation, money loses its nature of institutional symbol of a social relation, and becomes a *simple thing*.

How and by whom is money capital supplied to firms? What is the nature of this money capital? Marx initially puts forward a view of banks as *mere financial intermediaries*. They collect money from subjects who wish to lend, in order to pass it to firms who wish to borrow: deposits make loans through a flexible money multiplier. The logical condition for bank lending is here the previous existence of money savings. Having defined banking activity as pure intermediation, it is consequential that Marx considers deposits as the *loanable funds* at the disposal of banks. But in an alternative view that Marx

offers in other pages, bank credit is advanced *without any constraint coming from prior savings*, either real or monetary. It is, so to speak, a *forward-looking* perspective, where what matters is the *expected* capacity of entrepreneurs to actually *exploit* labour and gain profits.

Following the hints leading to a view of money as a social symbol and of banks as creator of money, Marx seems to realize that banking activity cannot be defined in terms of pure intermediation. Banks *transform non-monetary assets into money claims*. Of course, if there are legally prescribed reserve constraints, the issuing bank has no capacity to put an unlimited amount of banknotes into circulation. However, Marx knows well that on a purely theoretical level the issue of notes by the banking system *as a whole* finds *no limits* except for demand. Once again against Ricardo, for Marx note circulation is independent both of the will of the central bank and of the level of gold reserves in its vaults which ensure the convertibility of the notes. Given the possibility that the system might function properly even without any reserve of 'hard' base money, Marx deemed absurd the hindrances to note-issuing imposed by the 1844 Bank Act.

Marx constantly clings to a *less general framework*. The institutional arrangement he assumes is the one concretely shaping the monetary system of his times. He refers to *competing central banks* and not to the banking system as a whole, either at the international level (a single world bank or central banks moving in step) or in a closed economy setting. *Gold money as world money* and *statutory legal regulations to hold reserves* are then supposed to be effective. That is why he retains the notion that 'money as a commodity' is at the bottom of the pyramid of credit. In a system of this kind individual – either commercial or central – banks must first of all collect, respectively, legal tender or gold money in order to make loans. Reserves remain the foundation necessary to build the credit system, and the collecting of deposits stays firm as the preliminary condition in order for banks to make loans, though the deposit multiplier is recognized as a flexible one.

If our analysis were to end here, the most interesting and original reflections on credit scattered in Volume III would be lost. Marx's insistence on the pivotal role of the money commodity is closely connected to the phenomenon of *crisis*. In the *normal* workings of a monetary economy free from legislation based on incorrect theories of money that imposes artificial constraints on reserves, Marx fully recognizes the *independence* of capitalist money from the metal. The irreplaceable role of money as a commodity is during monetary crises, where the credit system shows that it does not emancipate itself from the commodity basis of the monetary system. Marx saw this 'reversion' of the credit system into the monetary system as a *vindication* of his 'money as a commodity' theory as it was presented in the opening chapter of Volume I of *Capital*. Money in the form of commodity is the foundation from which the credit system can never break (a view

which, with some modifications, seems quite appropriate when a hegemonic capitalist regime collapses, as it does periodically).

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9

Marx's Explanation of Money's Functions: Overturning the Quantity Theory

Martha Campbell

Marx's account of the functions of money, I will argue, is simultaneously a critique of the quantity theory. This critique has three parts: it identifies the misconceptions that make the quantity theory false, explains why the theory seems obviously true and, last, presents an alternative explanation to replace it. On the first count, Marx argues that the quantity theory conflates different functions of money – measure and means of circulation – and different forms – gold, tokens and credit money – and misconceives value as a result. Regarding the second, the quantity theory fits Marx's definition of vulgar economics: the means of circulation function is immediately apparent and the quantity theory results from defining money in terms of it. Finally, Marx's alternative to the quantity theory focuses instead on money's function as means of payment, with the implication that capitalist money is credit money. This is the position of Tooke and his followers, with whom Marx so clearly sides in the *Contribution*. According to Marx, their refutation of the quantity theory is incomplete because they jumble both money with capital and money's different aspects with each other.¹ Marx corrects the first of these defects by explaining money first in the context of simple circulation; he corrects the second by presenting money's functions in the order in which they presuppose each other in capitalism.

1 Measure

By the measure of value function Marx means that the value of every commodity is expressed as a quantity of the money commodity or as price. His explanation of this function, therefore, spells out the characteristics of this expression or of the price form. Since Marx has dealt with the inter-connection between money and value before chapter 3 of *Capital*, he begins with two conclusions he has already reached.

¹ See Marx (1859: 416).

The first is that money is a material object.² Value is a form of association but it must also be a property of things.³ That money is the material shape assumed by capitalist production relations means, as Marx argued in chapter 2, that it cannot be a symbol. The idea of money as a symbol implies that a universal equivalent is created by our collective action (that money, and so value, is 'the arbitrary product of human reflection').⁴ This view recognizes the social, but overlooks the objective character of value. A problem it poses is that if we had established our social inter-connection directly, there would be no reason for that inter-connection to be effected by the relation of all commodities to money.⁵

The second conclusion, based on chapter 1, is that money and value are inseparable because mutually requiring. Marx's statement of this point is evidently unfortunate, as it is widely misinterpreted. To rule out two conceptions that sever money and value, he distinguishes the transformation of commodity values into magnitudes of the same *denomination* by their expression in terms of money, and the *commensurability* of commodities in terms of value.

In this terminology, Marx argues that money cannot be what makes commodities commensurable. To maintain that it does would mean that money price does not express anything different from itself. The value of a commodity, then, would be just the amount of money it exchanges for, or its price. The symbol money theorists think of value in this way, from Marx's perspective detaching money from value. This abolishes value in Marx's sense: if commodities are commensurable only because of money, then value is not a property of commodities and, in turn, relations among commodities do not mediate social relations of production.

While Marx insists that commodity values are distinct from money, he denies that they can exist without it. Commodities by themselves are not quantitatively comparable because without money, value lacks any single denomination. This rests on Marx's case, in the forms of value section of chapter 1, that for commodities to be values, exchangeability must have its own separate embodiment. The labour money theorists overlook this requirement, detaching value from money. This abolishes money in Marx's sense: if value is denominated in labour hours, then money is not 'the form necessary to constitute value objectively'.⁶

The two positions Marx rejects are complements of each other: the first throws out value but tries to keep money; the second throws out money but tries to keep value. Marx's opposition to both clarifies his claim that value

² Money as measure supplies 'commodities with the material for the expression of their values' (Marx 1867: 188; see also 184 and 187).

³ See Williams (2000: 440).

⁴ Marx (1867: 186).

⁵ See Campbell (2004).

⁶ Arthur (2004).

must be expressed in money price. This means that there is both a distinction and an inherent connection between money and value.⁷

Marx has also presented an explanation for the first of these positions, which he will develop further in chapter 3. Because money embodies value (it 'expresses value just as it is in everyday life'), it seems to do so without reference to commodities in the relative form; instead it 'seems to be endowed with its ... property of direct exchangeability by nature': it seems to be value, as the first position maintains.⁸ Money then seems to be the source of the value of commodities. This is the inverted appearance, which money as universal equivalent presents, that 'all other commodities universally express their values in a particular commodity because it is money'.⁹ In chapter 3, this first inversion will emerge as one of the tenets of the quantity theory. The theory's more recognizable propositions result from additional inversions associated with money's means of circulation function.¹⁰ Thus Marx has incorporated into his own theory of money, an explanation for the origins of the quantity theory.

Turning to chapter 3 itself, the characteristics money has as measure are confined to those required to express value. In this connection, the material of the money commodity matters but the presence of this commodity does not. Regarding the first point, because any one commodity has one definite value, transforming the values of all other commodities into quantities of that one expresses the values of the others adequately (which is also why two commodities cannot act as measure at the same time). The reason for the second point is that no real money is required just to state the prices of commodities (prices are being announced, not realized). It follows that everything to do with money's actual existence – its creation, its quantity – is irrelevant to the measure of value function. Accordingly, these issues do not arise in the section on measure.

Marx also says nothing about how the amounts of value or of price are determined. Since the expression of value in price is the sole concern, their amounts are taken as 'given', not in the sense that we know them but in the sense that they do not matter in this context. How changes in value are manifested in price is relevant to measure, and Marx considers changes both in the value of money and of commodities. On the first, he maintains that changes in money's value do not interfere with its measure function. His

⁷ Murray's (1993) description of value as an essence makes the same point; essence both must appear and appears as other than itself.

⁸ Marx (1867: 149). As demonstrated by Marx's later reference to exchangeability as a 'social property', 'by nature' means inherent in money apart from the commodity world, including a symbolic nature resulting from convention.

⁹ Marx (1867: 187).

¹⁰ Locke puts all the pieces together, linking 'the absence of value in gold and silver and the determination of their value by their quantity' (Marx 1867: 221, n. 14).

explanation illustrates the perspective peculiar to this function: 'a change in the value of gold' he says, 'affects all commodities simultaneously, and therefore...leaves the mutual relations between their values unaltered'.¹¹ This does not mean that changes in money's value never matter or that relative price is all that counts. Prices change simultaneously because, in this context, given commodity values are just being transformed into appropriate quantities of the money commodity. This is instantaneous because it is a 'purely ideal act'.¹² In other words, Marx is not referring to any real process of change, such as selling, lending or inflation. Considering changes in commodity prices from the same perspective yields a principle that Marx has already stated in connection with the simple value form. Since price is a relation, a change in price does not reveal its value source (since this could come from either side of the relation), while changes in value need not be manifested in price (if the value of a commodity and of money change together).¹³ This is just the simplest way that price does not manifest value unambiguously.

Taken one step further, the last point Marx makes about the price form is that incongruities between price and value are inherent in it. Price may express a value that is not the right amount and may also express a value that is not there. With this, Marx's whole argument seems to unravel. Obvious questions are: if non-products have prices, what justifies the transition from commodities to abstract labour in chapter 1? If price does not express the right quantity of value, then why bother with value at all, since it is of no help in formulating a theory of price? One way of responding is to say that the prices that misrepresent values can be explained by disequilibrium, the profit rate or the theory of rent. While these arguments are not false, they are beside the point. Marx is drawing attention to one of the characteristics of the price form, namely, that price stands in an external relation to value. A commodity's value is its proper place relative to all others in the social product, but is transformed, Marx says, into 'the exchange ratio between a single commodity and the money commodity which exists outside it'.¹⁴ This external relationship between price and value originates in the mediated or indirectly social character of capitalist production. Because of it, disparities between price and value not only may, but are bound to arise. Disequilibrium prices and the price of land are two examples of how price and value can diverge, but price is still externally related to value even under conditions of proportional production. Marx is concerned with what a price is, not with the economist's question: what determines the magnitude of price? The exclusive concern with the latter makes the concept of value seem

¹¹ Marx (1867: 193).

¹² Marx (1867: 190).

¹³ See Marx (1867: 193 and 144–6).

¹⁴ Marx (1867: 196).

superfluous. The answer to that charge, therefore, is that if price is considered on its own, the distinction between price and value is abolished. This is one of the ways of falsely conceptualizing capitalist production as an immediate unity or, in other words, of abolishing money.¹⁵

The external character of price to value is the logical implication of the two-fold character of the commodity. The contradiction within the commodity between use value and value extends throughout all capitalist forms, appearing differently in each one. Its manifestation in the price form is that price both expresses and conceals changes in value. Commodities have prices only because their exchange links the activities that produce them. Hence the price form, in its turn, implies actual exchange, where the contradiction appears in the distinction between ideal and realized price.

2 Means of circulation

As means of circulation, money is the transitory shape the commodity's value must assume in order for one commodity to be transformed into another. As with measure, Marx identifies characteristics that pertain exclusively to this function. As before also, these follow from adopting a particular perspective towards exchange, which determines what is relevant and what is 'given'. This perspective is revealed if we bear in mind that commodity circulation is the change of form of the commodity and nothing else.

On the commodity side, excluding all else implies, first, that use value is the aim of exchange (the subject is the *commodity's* change of form). Second, commodities are assumed to be present; we know from chapter 2 that they are private property, but not how their owners came to have them. Last, because money's function as means of circulation presupposes its function as measure, the commodity's value is given as an ideal price. Opposite commodities, money can be nothing but an intermediary, meaning in its extreme form that money cannot leave circulation. Further, since money mediates the satisfaction of needs, it has ideal (potential) use value consisting of all the commodities whose price it could realize. Last, as with commodities, money's presence and its value are both given.

Exactly opposite to its characteristics as measure, with the means of circulation function, the actual presence of money matters but its material does not. The reason for the first aspect is that exchange is 'the scene of the action'.¹⁶ Whereas previously, the expression of the values of commodities in one of their number made that one into ideal money, now the 'transformation of their real shapes', by their sale, makes the shape of value they assume into 'real money'.¹⁷ Second, the physical material of the object that

¹⁵ This applies to any 'value-less' theory of price, both orthodox and heterodox.

¹⁶ Marx (1867: 199).

¹⁷ Marx (1867: 204).

serves as means of circulation does not matter because its value is irrelevant to its function. As will emerge, money is a symbol in its means of circulation function. Because money is not expressing value, however, its symbolic character implies nothing about the nature of value. This is the crux of Marx's reply to the quantity theory. It begins from his argument that commodity circulation is the source of money.

2.1 Circulation and the stock of money

As the inter-connection among commodity circuits takes the place of coordination in the production of different kinds of commodities, it is the social connection among commodity owners. Because the commodity form is dominant, circulation encompasses everyone; it is the normal way of satisfying needs, or the 'process of social metabolism'.¹⁸ By their dependence on circulation, all commodity owners are bound to each other or to society in general. Because their relation is mediated by money, circulation – or their social connection – is an objective entity 'entirely beyond the control of human agents'.¹⁹ This is manifested by the impersonal character of exchange relations, the 'haphazard and spontaneous' nature of the division of labour, its consequence, that the commodity's successful passage through its circuit is 'a matter of chance' and ultimately, by crises, or the disintegration of circulation.²⁰

For all the foregoing reasons, circulation must exist continuously and be a permanent fixture; it is 'the market'. Unlike occasional exchanges it 'does not disappear from view once the use values have changed places and changed hands'.²¹ Commodity circulation of this kind requires, as its counterpart, a stock of real money (means of circulation) to carry out exchanges. As Marx puts it, 'circulation sweats money from every pore'.²² This raises the question: where does this stock of money come from?

Marx answers this question in two ways. One is that the money stock is just there. This is the implication of his assumption that the money in one circuit comes from a prior sale in another.²³ The second answer is that gold is produced in the same way as any other commodity (although, as we will see, no commodities are produced in way he describes). He appeals to gold production three times in chapter 3 to explain, first, how gold enters

¹⁸ Marx (1867: 198).

¹⁹ Marx (1867: 207). 'Circulation, because a totality of the social process, is also the first form in which the social relation appears... as a power over the individual which has become autonomous' (1939: 197).

²⁰ See Marx (1867: 207, 202, 203 and 209).

²¹ See Marx (1867: 208; see also 1859: 324).

²² Marx (1867: 208).

²³ 'We will assume that the two golden coins' exchanged for linen 'are the metamorphosed shape of a quarter of wheat' (Marx 1867: 204).

circulation; second, how its value and the quantity of money are related; and last, how the hoards required for metallic circulation are formed.²⁴

These discussions of gold production are extremely peculiar. To begin with, they violate the limits appropriate to examining circulation (which Marx otherwise observes and later restores). Since circulation is only the change of form of commodities, its investigation excludes accounting for their presence; commodities must be taken as given (and the next point shows why). Second, Marx misrepresents production, describing it as it would appear directly from circulation. The result is simple commodity production, familiar from the hunter and fisherman stories of Smith and Ricardo. Marx presents his version by saying: 'Up to this point we have considered only one economic relation ... a relation between owners of commodities in which they appropriate the produce of the labour of others by alienating the produce of their own labour.'²⁵

This is 'the appearance of the law of appropriation in simple circulation', whose premise is that 'one's own labour' is 'the original title to property'.²⁶ Marx contends that it 'is not arbitrary, but ... springs from the examination of circulation itself', which explains why it is shared by 'all modern economists'.²⁷ First, circulation presupposes some other way of acquiring property besides itself, since nothing can be acquired from circulation unless something is already owned. Economics takes labour to be this other way. Second, it derives the mutual isolation of different production activities from the mutual independence of individuals in exchange. Instead of discovering the other relations presupposed by circulation, however, the leap from circulation to production arrives at a notion of production without social form.²⁸ Except that Marx's story is about gold rather than beavers and deer, it does the same. Marx later argues, however, that capitalist property involves the inversion of this premise; hence his version is presented not as a truth, but as a semblance that is exposed later as false.

A third peculiarity of the gold production stories is that Marx abandons each one immediately for an alternative that conforms to the givens proper to circulation. In the first, as noted earlier, Marx no sooner introduces gold production than he assumes instead that money already is in circulation, coming from a previous sale.²⁹ Money, like commodities, is then taken to be present, as the investigation of circulation requires. In the second, Marx

²⁴ Marx (1867: 203–4, 214, 228–9).

²⁵ Marx (1867: 203). I am arguing that this passage is intentionally false, not that Part I of *Capital* refers to simple commodity production.

²⁶ Marx (1858: 461 (translation modified) and 463).

²⁷ Marx (1858: 464–5).

²⁸ See Marx (1858: 470). Marx explains: the other 'relationships are obliterated' from the standpoint of simple circulation (1858: 466).

²⁹ See Marx (1867: 204).

explains how the quantity of money changes because of changes in its value (which is part of his reply to Hume). Then he takes money's value as just given, which corresponds to the given prices of commodities and is presupposed in these prices themselves.³⁰ Last, Marx faces the 'self-contradiction' that circulation requires hoards but their formation (by selling without buying) undermines rather than supports circulation.³¹ One solution is to appeal to the initial transfer of gold at the mine. The other is that the hoards already exist. When, shortly thereafter, Marx explains how the quantity of money adjusts to the needs of circulation, he says that money flows in and out of circulation, not from gold production, but from reserve hoards.³²

We get to the bottom of this finally when Marx discloses that the hoards are already there when capitalism begins: 'modern society ... already in its infancy had pulled Pluto by the hair of his head from the bowels of the earth'.³³ Hence hoards are formed by production, not in capitalism but prior to it. Marx's brief history in chapter 2 makes the similar point that capitalism is handed an already selected money commodity by the prior evolution of the exchange process.³⁴ Marx's assumptions that money is gold, that its value is established and that there is a stock of gold, parallel historical givens for capitalism; both must start somewhere.³⁵ If gold is the form of money given to capitalism, however, it cannot be money's capitalist form. Gold is the first form of money in capitalism, just as the methods of craft production are the first form of technology, not because they are capitalist but precisely because they are not shaped by capital. By supplying an alternative to gold production each time he discusses it, Marx detaches his argument from gold and leaves room for 'real' money to take any form. As I will argue, Marx presents the basis for credit money in connection with money's means of payment function and indicates, there, that it is capitalist money. For the moment, money begins its dematerialization with coin.

2.2 The currency of money, coin and the quantity theory

Currency is the path of money in simple circulation.³⁶ Whereas the commodity describes a circuit by returning to the commodity form, money runs

³⁰ Marx (1867: 214).

³¹ Marx (1867: 228).

³² See Marx (1867: 232).

³³ Marx (1867: 230).

³⁴ See Campbell (2004).

³⁵ I am not arguing that Marx's method is 'logical-historical' (for the pitfalls of this interpretation, see Arthur 1997). In this instance, Marx begins as capitalism did with elements of capitalism in forms that are not shaped by capital.

³⁶ Marx distinguishes between the course (*Umlauf*) of money and the circuit (*Kreislauf*) of the commodity. 'Currency', like Marx's synonym, *cours de la monnaie*, expresses his point that money runs (1867: 210).

continually in one direction 'further from its starting-point'.³⁷ Besides its own path, money also acquires its own shape. When the implications of its means of circulation function are fully disclosed, money is a symbol (which is to say, not a commodity). Just as 'currency' in Marx's terminology refers specifically to money's path, 'coin' refers to all symbols that function as means of circulation, whatever their material.

The first feature that set money apart from commodities, the equivalent form, gave rise to an inversion (the semblance that money is value and, as such, the source of the value of commodities). Likewise, money's distinctive path – currency – gives rise to a second inversion and its shape as a symbol – coin – to a third. These inversions, as we will see, together constitute the quantity theory. As before, Marx claims that money's characteristics are the reflection of the characteristics of commodities: he spoke of the equivalent form as the 'mirror' of commodity values and here describes currency as the reflection of commodity circulation.³⁸

This means that the currency of money is derivative; commodity circulation is the source of its monetary counterpart. Marx has employed this order of determination throughout Part I. The justification he gives for it at this point is that simple circulation is the change of form of *commodities*; money mediates this metamorphosis only because it is the 'independent shape' of *their* value.³⁹ The ultimate reason for both these points, however, is that the goal of simple circulation is the satisfaction of needs. Commodities are the prime movers of simple circulation and money just an intermediary because their use value is the aim (Marx's qualification: 'all this is valid only for the simple circulation of commodities' foreshadows the inverted circuit he will introduce with means of payment).⁴⁰

Describing currency as a reflection implies also that it presents a mirror image. This has the two senses of being both inverted and visible. With currency, as with the equivalent form, causality appears to run from money to commodities, which is the opposite of its true direction according to Marx. Currency rather than commodity circulation attracts notice, Marx explains, because it seems to be the source of all order and continuity. Marx revealed the circuit of a single commodity and, from there, developed commodity circulation as a whole from the intersections among circuits. Throughout this explanation, Marx hints that the appearance of commodity circulation does not have the orderliness his account gives it. In reality, we do not know the origin of the money that purchases any given commodity; the division of

³⁷ Marx (1867: 210).

³⁸ For the first instances see Marx (1867: 144, 150); for currency as reflection, see Marx (1867: 217; 1859: 330).

³⁹ Marx (1867: 212).

⁴⁰ Marx (1867: 212).

labour together with the diversity of needs means that sellers scatter their purchases among many commodities; we cannot see how circuits intersect; money separates the two halves of every circuit; a sale need not become a purchase at all. For all these reasons: 'the actual process of circulation appears ... not as a complete metamorphosis of the commodity ... but as a mere accumulation of numerous purchases and sales which chance to occur simultaneously. The form determination of the process is obliterated.'⁴¹

Whereas commodity circulation appears chaotic, its monetary counterpart, the currency of money, appears orderly and continuous. This is because commodities are motley, while money is one thing; commodities enter and leave circulation, while money stays; the connection between the two phases of the commodity's circuit is not apparent, while money's motion – the repetition of the same step – is 'everywhere visible'.⁴² In these ways, commodity circulation itself hides the true direction of causality and 'produces a semblance of the opposite': 'the movement of money is merely the expression of the circulation of commodities' but instead, 'the circulation of commodities seems to be the result of the movement of money'.⁴³

Marx presents two forms of this inversion. One is the 'popular opinion', as Marx calls it, that stagnation is caused by 'a quantitative deficiency in the circulating medium'.⁴⁴ The second is the quantity theory proper or the claim that the quantity of money determines both the value of money and the prices of commodities. Marx separates this second inversion (associated with currency) from the third (that will be associated with coin) by posing his explanation of currency in terms of metal money. Subject to this assumption, his case that the quantity theory is backwards rests on his ordering of the functions of money. Because money's means of circulation function presupposes its function as measure, commodities enter circulation with ideal prices and these imply a given value of money.⁴⁵ The observed correlation between the quantity of money in circulation and the level of commodity prices is consistent with Marx's value theory since both would have to increase if the value of money falls. Here 'money itself' does cause the change in its quantity, but because of a change in its value and so 'in virtue of its function as measure of value'.⁴⁶ This, Marx claims, is what Hume saw.⁴⁷

Marx has so far explained Hume's inversion of causality by real appearances: that money's circuit is conspicuous while the commodity's circuit is invisible. This inversion, like the first associated with the universal equivalent,

⁴¹ Marx (1859: 330). For the characteristics listed see Marx (1867: 205, 207 and 208).

⁴² Marx (1859: 337).

⁴³ Marx (1867: 211, 212).

⁴⁴ Marx (1867: 217).

⁴⁵ See Marx (1867: 210, 213 and 1859: 391–2).

⁴⁶ Marx (1867: 213).

⁴⁷ See Marx (1859: 392 and 1867: 214).

has an objective basis even though it is false. Anticipating his discussion of the means of payment, Marx indicates also that certain aspects of the quantity theory's inversions are valid in the credit system. Misguided monetary policy can create stagnation by interfering with money creation.⁴⁸ Money does follow a circular path with credit money in the circuit of capital: money borrowed by capitalists to pay workers returns to capitalists as sellers and, from them, to banks.⁴⁹ These do not support the quantity theory, however, because it claims to describe money as a simple medium of exchange. The circuit of capital and credit money is not, Marx notes, 'the so-called circuit of money as people imagine it'.⁵⁰ The quantity theory's principle (although not the implications drawn from it), does become valid with the inversion associated with coin.

This inversion overturns everything Marx has said up to this point; the previous two inversions are themselves inverted. Regarding the first inversion, coin *is* a symbol: it 'has value because it circulates', and, as its creation by the state demonstrates, it is conventional.⁵¹ Regarding the second, the 'law peculiar to the circulation of paper money' is the relationship stipulated by quantity theory, the opposite of the laws governing metal money.⁵² Thus the symbol and quantity theories are one and the same and are, at least superficially, true of state-issued token money.

Based on the argument leading up to this point, however, Marx can show that the characteristics of coin can be explained in terms of value. To make the same point in a different way, the immediate implications of token money are false: considering it by itself (apart from metal money and measure) must yield misconceptions. To begin with, coin is a symbol of gold and only thereby a symbol of value. Because the symbolizing relation is indirect, it implies nothing about value. Marx's case against the first inversion was that value's expression in money is an aspect of the nature of value, not the arbitrary relation of something symbolized by a symbol. This argument still stands. The symbol, coin, does not express value. It represents gold and its function as means of circulation presupposes the expression of value in gold by money functioning as measure.⁵³ Similarly, because coin symbolizes gold, the conventional character of coin does not imply that value is conventional. On the contrary, the state can create symbol money because circulation leaves room for arbitrary stipulation. Any value the circulating medium may have is irrelevant to its function. Coin must be able to circulate without possessing the value it represents since it cannot circulate without wearing

⁴⁸ Marx (1867: 218, n. 28).

⁴⁹ See Marx (1859: 337–8).

⁵⁰ Marx (1859: 337).

⁵¹ Marx (1859: 356).

⁵² Marx (1867: 224).

⁵³ Hence Marx reiterates this earlier point with his note on Fullarton (1867: 225, n. 35).

away. What coin does require is 'objective social validity' and this the state can confer (within national boundaries).⁵⁴ The role of the state, however, is limited to establishing a symbol of the measure of value; once that symbol 'enters circulation it is subject to the inherent laws of this sphere'.⁵⁵ As Marx explains, the inversion of the law governing metal money results from the distinguishing feature of truly symbolic money: that it cannot leave circulation because it functions as a medium of exchange and nothing else.⁵⁶ Whereas the quantity of metal money adjusts to the needs of circulation (its value remaining the same), because this route is closed to symbol money, its value must adjust instead. Symbolic money adjusts in value by representing varying amounts of gold. The reason its value varies inversely with its quantity is that its quantity determines how much gold a unit of symbol money represents. As Marx puts it, the effect of changing the quantity of money 'is the same as if an alteration had taken place in the function of gold as the standard of prices' (either the weight of gold in the monetary unit or the value of that weight).⁵⁷

Based on his own explanation of token money, Marx argues that the quantity theory conflates both the different forms and different functions of money. First, Hume presents his theory as a description of metallic money whereas, according to Marx, it applies only to token money. The source of this conflation is Hume's assumption that money is exclusively a medium of exchange. Since this confines money to circulation, which is the distinguishing feature of token money, it misconceives metal as token money.

Second, Hume explains the decrease in the value of gold he witnessed by an increase in the quantity of money actually in circulation. The value of gold (and also the standard of price) has to do with money's function as measure, while its presence and quantity have to do with its function as means of circulation. Hence Hume attributes characteristics money has in one function (measure) to characteristics that are unrelated because they pertain to a different function (means of circulation). Both conflations are inherent in the quantity theory because they follow from its basic tenets. For example, Ricardo also witnesses decreases in the standard of price, but the events he considers do involve token money. Here, increases in the quantity of money are the cause. By equating these with a decline in the value of gold, however, Ricardo makes the same conflation as Hume.⁵⁸

⁵⁴ Marx (1867: 226).

⁵⁵ Marx (1859: 354).

⁵⁶ Examples of truly symbolic money are the US Continentals and the French and Chinese 'assignats' (see 1867: 224, n. 34; 1859: 352, 400).

⁵⁷ Marx (1867: 225).

⁵⁸ See Marx (1859: 400). The controversy between Locke and Lowndes over the monetary standard involves the same conflation (see *ibid*: 354–5).

Since the quantity theory contains these conflations it is not valid in any sense, even though it presents the causal relationships pertaining to token money. Its defect is not just that it lacks generality but that it cannot explain the one form and function of money whose laws it identifies.⁵⁹ Marx's alternative reconstruction of these laws suggests that the source of its errors is that it starts with money's means of circulation function. As Hume's reasoning illustrates, isolating this function causes money to be conceived as token money. Since, by Marx's account, the characteristics of token money reverse the direct implications of value, there is no logical path from token money to value. It follows that a theory that is derived from token money is confined to it; its concepts are drawn exclusively from the relationships token money exhibits (Ricardo escapes only by being inconsistent). First, starting with token money means that coin must be conceived directly as the symbol of value rather than as a symbol of value indirectly because it is a symbol of gold. Eliminating this mediation transforms the relation between value and money into a symbolizing relation. As argued at the outset, this is the idea Marx rejected in chapter 2 because it abolished value in his sense: a form of association that must assume a material shape. Second, starting from the means of circulation function (or token money, they amount to the same thing) implies that it is definitive of money. This is the reason for Hume's two conflations. Not only do all forms of money come to be conceived as token money, but money is conceived to function in no other way than as a means of circulation. As Hume's argument again illustrates, the characteristics of money as measure are attributed to its means of circulation function and, since tokens cannot leave circulation, money is not hoarded.

If the means of circulation function leads straight in the wrong direction it is also the natural starting point of monetary theory. This is because money as means of circulation is 'real' money: it is present and so immediately visible (the only evidence for measure, by contrast, is that it is implicit in value). The quantity theory, then, is not arbitrary; it follows from what is apparent and is inimical to value, which is not.⁶⁰ This makes it a perfect example of the ideas Marx sought to refute by his critique of political economy. His reconstruction of token money, which supplants the quantity theory, ties the means of circulation function back to value via money's function as measure. This is one example of connecting the 'inner essence' to the phenomenal 'semblance', which Marx held to be the proper aim of science.⁶¹

⁵⁹ De Brunhoff rightly maintains that Marx does not reinstate the quantity theory for token money but 'seeks to get rid of the quantity theory for all kinds of money' (1976: 35).

⁶⁰ See Marx (1859: 391).

⁶¹ Marx (1894: 269; see also 956).

Finally, the quantity theory stands in the way of understanding credit money because it reduces all forms of money to token money. This was brought home to Marx by the Bank Act of 1844, which turned the quantity theory's conflation into a 'practical experiment'. It ties the quantity of credit money to the quantity of gold reserves based on the double conflation of credit money with tokens and of tokens with gold money.⁶² With the quantity theory explained, Marx can begin to develop the basis for credit money.

3 Means of payment: the foundations of credit money

In the final set of functions, money becomes independent of the metamorphosis of commodities. Both as hoard and as means of payment, money is transformed from an intermediary into a goal. The change in goal, in turn, implies the inversion of the commodity circuit into the capital circuit; this inversion first appears with money's function as means of payment. Because surplus value is yet to come, however, Marx confines his explanations to simple circulation.⁶³ Only the means of payment function will be considered here. Money that arises from this function is evidently credit money. Marx argues that it is governed by different laws from either gold or coin and that it is the form of money proper to capitalism.

Marx cannot give an account of true credit money since he has yet to establish what capital is, much less differentiate industrial from banking capital. He does, however, present the precursor of bank money, the bill of exchange. These are promises to pay or 'certificates of debt' that circulate, associated with trade credit rather than banking.⁶⁴ Nevertheless, they introduce a crucial feature which bank money shares: they are 'private, legally enforceable contracts among commodity owners' instead of money established by the state.⁶⁵ The 'commodity owners' are, of course, capitalists, which makes the 'certificates of debt' they give each other the money capital creates for itself.

Other distinctive properties of credit money follow simply from the debtor-creditor relationship. As just noted, the means of payment function inverts the circuit associated with the medium of exchange: it begins with money as an ideal means of purchase (the promise of future money) and ends with real money that pays a debt. At its end point, money is a sum at rest rather than a transient mediator.⁶⁶ It therefore has the character of a

⁶² Marx (1859: 414, 400).

⁶³ See Marx's introduction and retreat from the *M-C-M* circuit in the *Contribution* (1859: 356-7).

⁶⁴ Marx (1867: 238); also called 'titles to money in civil law' (1867: 234).

⁶⁵ Marx (1859: 372).

⁶⁶ See Marx (1859: 378).

hoard, but (foreshadowing capital) also enters rather than stands opposed to circulation.⁶⁷ Moreover, the promise to pay creates a new need. This is a need for money specifically; for the value, rather than for the use value aspect of the commodity, which figured in means of circulation. Although more striking when money is hard to come by (especially when the difficulty is generalized in a monetary crisis), the motive of selling to pay (as capitalists do to meet loan payments) is inherent in the debtor–creditor relationship. As Marx emphasizes, this is an economic necessity; unlike the individual needs of the buyer or personal whim of the hoarder, it ‘arises from the relations of the circulation process themselves’.⁶⁸ Both as hoard-like and as the aim of exchange, money stands opposite commodities as the only valid embodiment of value. Its new character as means of payment, then, is that it is the ‘absolute commodity’.⁶⁹

Among the great advantages associated with the means of payment function is that the volume of transactions that can be carried out simultaneously is not restricted by a given money stock. Different forms of credit money operate differently, but all presuppose that ‘commodity owners’ are inter-connected through credit relationships, each being both a creditor and a debtor.⁷⁰ With bills of exchange, the greater the degree of inter-connectedness, the faster money flows from one payment to the next and the more reciprocal debts cancel each other, so that money is used only to settle outstanding balances. The quantity of money required to support any given volume of transactions, therefore, can be reduced through increased integration. A barrier to expansion posed by state-issued means of circulation is therefore removed.⁷¹ This advantage, Marx suggests, fuels the development of the credit system. With it, money functions primarily as means of payment, ‘to the detriment of its function as a means of purchase’; the latter requires only ideal money except in retail trade.⁷² While, on the one hand, the development of the credit system accommodates capital’s expansionary drive, on the other, capitalist production for sale supplies the means to meet debt payments, absent from earlier modes of production.

With this, new errors in the quantity theory come to light. The function it takes to be definitive of money is relegated to a secondary status. The characteristics implied by that function are, therefore, irrelevant to capitalism. The quantity of money is not governed by the rules of token money, but depends on factors the quantity theory does not entertain, such as how closely capitalists are joined by credit relationships and how frequently debt

⁶⁷ See Marx (1859: 374).

⁶⁸ Marx (1867: 234 retranslated; see also 1859: 374).

⁶⁹ Marx (1867: 234; 1859: 378).

⁷⁰ See Marx (1859: 377).

⁷¹ See Marx (1859: 377).

⁷² Marx (1859: 375; see also 1867: 238).

payments come due. The most significant implication, however, is that the purpose of exchange is inverted. This is most evident in monetary crises, which occur only once 'the ongoing chain of payments has been fully developed': that is, once the credit system exists.⁷³ The same integration that removes the monetary barrier to expansion also generalizes any difficulties in meeting debt payments. The more 'commodity producers' are interconnected by creditor–debtor relationships, the broader the impact of any halt in the flow of payments. The generalization of the inability to pay makes the need for money universal. With this, we have escaped the illusions of simple circulation and are at the threshold of *Capital*, Part II.

4 Conclusion

Marx must confront the quantity theory not only because it is prevalent and false but because it precludes any connection between value and money on one side and money and capital on the other. As others have observed since, the definitive feature of the quantity theory is that it regards money solely as a means of circulation. Marx's case against the quantity theory rests crucially on the distinctions he draws among money's different functions. In his account, the first connection of value to money depends on money's function as measure being distinct from and presupposed by its function as means of circulation. On this basis, Marx disposes of the quantity theory's contention that money symbolizes value. While most of this chapter has been devoted to this argument, it has also argued that Marx establishes the second connection of money to capital by money's function as means of payment. His argument that this function is subject to laws entirely different from the means of circulation function renders the quantity theory irrelevant to capitalism.

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10

Marx's Anti-Quantity Theory of Money: A Critical Evaluation

Pichit Likitkijomboon¹

1 Marx's anti-quantity theory of money

One of Marx's most important, original contributions to political economy is his theory of value-form and capital-form, in which the category of money goes through stages of dialectical development from the accidental form to the universal form (gold money), money as the general form of capital and, finally, fictitious capital. Marx's theory of the monetary mechanism, which involves the anti-quantity theory, is equally important but has rarely been discussed in Marxian literature. The purpose of this chapter is to evaluate Marx's theory of the monetary mechanism and to show that Marx's treatment is incomplete. Moreover, the theory, in its classical form, contains serious logical flaws.

Marx discusses his 'law of money circulation' for the first time in the context of simple commodity production and metallic money in chapter 3 of *Capital I*:

Hence, for a given interval of time during the process of circulation, we have the following relation: the quantity of money functioning as the circulating medium is equal to the sum of the prices of the commodities divided by the number of moves made by coins of the same domination. This law holds generally.

(Marx 1867: 121)

The following identity is obtained:

$$M \equiv PQ/V$$

¹ This chapter has been drawn heavily from chapters 6, 7 and 8 of my PhD dissertation, *Marx's Theory of Money: A Critique* (Cambridge University, 1990). I wish to thank Anitra Nelson, Makoto Itoh and Fred Moseley for their comments on the earlier draft, and Mount Holyoke College for funding my travel to the conference.

where M is the quantity of money in circulation; P , the average price of commodities; Q , the total quantity of commodities; and V , the velocity of money. The velocity is the reflection of the rapidity of commodity circulation (Marx 1867: 121–2). Based on Marx's labour theory of value, the price-sum of commodities (PQ) is determined by the production conditions, the labour-value ratios between commodities and gold money, and hence is independent of the quantity of money in circulation.

Marx then asserts his 'law of money circulation': the quantity of money in circulation is determined by the price-sum of commodities and the velocity of money (Marx 1867: 122–3). The identity turns into a behavioural equation: $M = PQ/V$. *The quantity of money in circulation is determined by the money-velocity and the price-sum of commodities.*

If there is an excess or a shortage of money (M) relative to the requirement of commodity circulation (PQ/V), the quantity of circulating money must decrease or increase to restore the equilibrium. Marx refers to the existence of money hoards acting as the pool to release idle money into circulation or to absorb excess money out of circulation as required (i.e., the hoarding mechanism).

We have seen how, along with the continual fluctuations in the extent and rapidity of the circulation of commodities and in their prices, the quantity of money current unceasingly ebbs and flows. This mass must, therefore, be capable of expansion and contraction. At one time money must be attracted in order to act as circulating coin, at another, circulating coin must be repelled in order to act again as more or less stagnant money. In order that the mass of money, actually current, may constantly saturate the absorbing power of the circulation, it is necessary that the quantity of gold and silver in a country be greater than the quantity required to function as coin. This condition is fulfilled by money taking the form of hoards. These reserves serve as conduits for the supply or withdrawal of money to or from the circulation, which in this way never overflows its banks.

(Marx 1867: 134)

How the hoarding mechanism operates to maintain the equilibrium is not explained by Marx. Specifically, what is the intermediate link from the state of monetary disequilibrium to individuals' hoarding decision? How does the excess or shortage of circulating money induce individuals' decision to hoard or release money?²

² In a footnote, Marx refers to John Stuart Mill on the fact that, in India, silver ornaments perform the function of hoard, the quantity of which is inversely affected by changes in the interest rate (Marx 1867: 134, n. 1). But Marx does not discuss the issue in the main text. It is impossible for Marx to put in the interest rate as the intermediate link at this point because the category of interest has not been derived at this level of abstraction.

There is one curious implication from Marx's hoarding mechanism. *Other things being the same, a unique quantity of money is required to circulate a given quantity of commodities.* Additional money will not be accepted since it is superfluous to the circulation requirement. Thus if one 'forces', say, one coin into circulation, other things being equal, another coin will be withdrawn into the hoard at some other point in the circulation chain.

Since the quantity of money capable of being absorbed by the circulation is given for a given mean velocity of currency, all that is necessary in order to abstract a given number of sovereigns from the circulation is to throw the same number of one-pound notes into it, a trick well known to all bankers.
(Marx 1867: 121)

This is an anticipation of Marx's 'law of reflux', which is the hoarding mechanism operating under capitalist commodity circulation.

2 The law of money circulation under capitalism

Under capitalist production, money circulation is the reflection of the circulation of capital since the commodity itself is a form of capital (Marx 1894: 321). Money circulation under capitalist production using purely metallic money is fundamentally the same as simple commodity production. The quantity of circulating money is dependent upon all other variables in the exchange equation. Money hoards take the form of the capitalists' reserve funds acting as the reservoir to adjust the quantity of circulating money (Marx 1894: 103, 116). As the credit system emerges, metallic currency is replaced by paper money while reserve funds are converted into bank reserves. Nonetheless, these developments do not alter the law of money circulation. The law is readily extended to govern paper money (Marx 1894: 445–6, 522). The same holds true for credit instruments such as bills of exchange because bills are created only to facilitate capitalist transactions (Marx 1894: 540). Thus, the quantity of paper money and bills of exchange required in circulation depends on the price-sum of commodities and the velocity. All these independent factors are summed up in the terms 'the needs of transaction', 'the requirement of commerce', and so on.

Bank reserves play the equilibrating role to release or absorb money under capitalist production just as money hoards do under simple commodity production. As money influx and efflux are subject to the requirement outside the banks, fluctuations in bank reserves merely reflect changes in the needs of transaction (Marx 1894: 494–5, 502). But what happens if banks issue more notes independently (by discounting bills or buying securities)? Marx maintains that excess notes beyond the needs of transaction will be returned immediately to the banks as deposits or debt settlements (Marx 1894: 454, 523–4). The reason is that capitalists will find no use for the money in capital

turnover, and will reduce the excess by paying off previous debts to the banks. Note issues beyond the needs of transaction only result in debt liquidation without any effect on capital turnover, capitalist spending and the price level. 'The quantity of circulating notes is regulated by the turnover requirements, and every superfluous note wends its way back immediately to the issuer' (Marx 1894: 524). The same holds true if banks create current accounts with overdraft facilities for borrowers; cheques are drawn to pay previous debts without affecting capital turnover (Marx 1894: 454, 457). This is *the law of reflux*, which is the hoarding mechanism operating under capitalist production. Excess notes and bills will be returned to bank reserves just as excess gold money will flow into hoards.

However, in order to issue additional notes, the bank has to lower the interest rate, which will induce borrowing to pay previous debts (which cost a higher interest rate) with no change in capital turnover. In other words, the lower interest rate has no effect on capitalist spending and prices. This implication is incongruent with Marx's own analysis of the inverse relationship between interest and profit of enterprise which implies a negative relationship between the interest rate and capitalists' demand for loan capital. In fact, Marx does not even mention the interest rate at all in his discussion of the law of reflux, although the category of interest has already been derived at this level of abstraction.

Marx's law of reflux provides an accommodative banking system responding passively to changes in the needs of transaction. Such a view is in contrast with Marx's own discussion of cycles and crises which describes the active role of the banking system in varying the interest rate and its lending policy, and interacting with the circulation of capital.

The state and the monetary authorities do not exist in Marx's monetary framework. Marx made numerous comments on the Bank of England, but, in Marx's times, the institution was still far from being a genuine central bank acting as the sole supplier of paper money and the lender of last resort. However, even if such a central bank did exist in Marx's theory, it is still doubtful whether it could have any active role given Marx's advocacy of the law of reflux.

Marx's discussion of inconvertibility is set in the context of simple commodity production in the early part of *Capital I*, not capitalist production in *Capital III*. For Marx, convertibility prevents inflation not by the risk of gold drains and the international specie-flow mechanism as in Ricardo's theory, but by the law of reflux: namely, that notes are issued only when they are needed by capitalists. By contrast, inconvertible notes are 'forced' into circulation by the state to act as a symbol of value (Marx 1867: 128–9). The analysis of inconvertible notes must refer to gold money as if the latter were in circulation (Marx 1867: 128). If the state increases the amount of notes, each circulating unit will represent a smaller quantity of gold, smaller labour value and, hence, higher paper prices of commodities. However, Marx does not provide an analysis of the causal link from the increase in note issue to

higher paper prices of commodities. Thus there remains a question of what renders the hoarding mechanism ineffective under inconvertibility (i.e., why the excess inconvertible notes are spent on commodities to boost the price level instead of being put into hoards).

A corollary of Marx's theory is that inflation caused by an exogenous increase in the quantity of money simply does not exist; then what is the effect of international gold movements on the quantity of circulating money and the price level? Marx simply quotes numerous passages from parliamentary reports without any comments. It is said that a trade deficit will cause an unfavourable exchange rate and an outflow of gold. The efflux reduces the level of the banks' gold reserves. The banks will have to raise the interest rate to mitigate the gold outflow. Prices of securities fall and the loan market is tightened. If there is a trade surplus, the opposite occurs (Marx 1894: 549–50, 571–2, 575–7, 590, 592). In short, external gold flows result in changes in bank reserves, the exchange rate and the domestic interest rate without effect on the quantity of circulating money, domestic spending and the price level.

The missing detail and the apparent incongruities in Marx's theory are attributable partly to the unfinished state of *Capital III*. However, Marx draws heavily on the ideas of two prominent English monetary writers of the banking school, Tooke and Fullarton. While criticizing their confusion over money and capital and about the nature of capitalist economic crises, Marx takes up their anti-quantity theory. A study of the banking school's theory will provide details which are absent in Marx's works.

3 The classical anti-quantity theory of money

Sir James Steuart was highly praised by Marx as the first person to correctly deduce the law of money circulation. He asserts that the total quantity of money in a country is divided into two portions: money in circulation and money hoards. The former is determined by the state of trade and prices, while the latter act as reservoirs to adjust the quantity of the former through hoarding and lending by money owners.

Tooke maintains that total money income of the country, not the quantity of money in circulation, determines prices. It is the change in the price level that causes the change in the quantity of circulating money (Tooke 1844: 123). Tooke also gives an explanation of the concomitant discovery of new gold mines and higher prices. New gold does cause higher prices, but through the income adjustment mechanism. New gold raises income, spending and prices in the gold-producing country which then spread to all other countries via international trade. Finally, the larger quantity of circulating money is validated through higher prices (Tooke and Newmarch 1857: 210–13). Tooke envisages the disconnection between international gold movements and money in domestic circulation. Foreign trade imbalance

and international specie-flow do not affect the quantity of domestic money and prices because the gold flow is neutralized by money hoards in the form of bank reserves (Tooke 1844: 13–14).

While the causal link from an excess or shortage of money to the hoarding decision is missing in Marx's theory, this question is clearly answered by Fullarton. It is the variation in the rate of interest that constitutes the signal for individuals to hoard or discharge money according to the state of monetary disequilibrium. If there is a shortage of money, the market interest rate will rise, inducing a discharge of money into circulation in the form of more lending (Fullarton 1845: 140–1).

The law of reflux was formulated by Tooke and Fullarton as the hoarding mechanism under the convertible paper money and credit system. Notes are issued based on commercial loans which arise only from the needs to accommodate certain commodity trade. After the transaction is accomplished, the notes become superfluous and will be returned to the issuers.

There are three channels of reflux into the banking system. The excess notes return as bank deposits or debt liquidation. The third way, redemption of notes for gold coins, is possible but least likely (Tooke 1848: 185). If notes are issued on loans, they return as debt repayment. If they are issued by securities purchase, the notes return as deposits. However, the reflux via debt liquidation requires that the banks must discount only *short-term real bills*, which represent real commodities already produced, so that the debts will be liquidated when the commodities are sold. According to Tooke, the banks must pursue the policy of real-bills discounting in order that the law of reflux is effective. 'If the loans or discounts are advanced on proper banking securities, for short periods, the reflux of the notes, if any have been issued, will be equal to the efflux, leaving the circulation unaltered' (Tooke 1848: 194; see also Fullarton 1845: 64).

Thus, note over-issue is impossible. The banks have no control on the volume of notes in circulation. Any changes in the quantity of circulating media purely reflect changes in the needs of trade. Excess notes issued by the banks are simply returned to the issuers without any changes in spending and prices (Tooke 1844: 38).

4 Criticisms of the anti-quantity theory

First, in the anti-quantity theory, the volume of transactions is determined before the quantity of money in circulation, given the money-velocity. But the volume of transactions itself is in money terms. The problem is how to determine the monetary magnitude of this quantity. Most writers of the banking school fall back on the simple demand–supply determination. But if they apply this principle equally to both commodities and money, they fall into the trap of the Quantity Theory: namely, the value of money is determined by the supply of money. Marx fills the gap with his labour theory of value.

Second, the hoarding mechanism and the law of reflux imply that the trade balance and the balance-of-payments equilibrium is independent of international relative prices, and that international gold movements have no relation to money in domestic circulation. In other words, trade imbalances and international gold movements are not caused by disequilibrium in international relative prices, and hence these can be cured without any adjustment in domestic prices.

How, though, are trade imbalances and international gold movements that happen from time to time explained? The only option is to explain these by external shocks or internal accidents. And, indeed, the anti-quantity theorists constantly sought to explain trade imbalances, foreign exchange disturbances and external gold drains by exogenous accidents such as bad harvests, wars, extraordinary foreign remittances, and so on. This assertion has culminated in the doctrine of 'the self-liquidating character of exports of bullion' espoused by Tooke and Fullarton. They maintain that any gold drain, however it is caused, terminates by itself, so that large gold reserves at the central bank are sufficient to cope with the drain without any effect on the quantity of circulating money and domestic price levels. This view of the disconnection between external trade and internal prices is also the basis for Marx to criticize Ricardo's specie-flow mechanism as a 'false conception' (Marx 1867: 142, n. 1). However, such a view of external-internal disconnection is not sustained by the long history of international trade. As Robbins puts it:

[A] theory which exhibits this concept as something *rival* to any explanation invoking the internal circulation is not merely inferior, rather it is positively misleading; and the long dreary history of exchange crises in which the authorities concerned, under the influence of theories of this type, have looked everywhere save in the right direction from the causes and cures of their difficulties, shows how disastrous can be its influence in practice.

(Robbins 1958: 133–4)

Third, the anti-quantity theory divides the total quantity of money into two portions, one active in circulation, the other idle in hoards. This point underlies Marx's repeated criticisms of Hume, Ricardo and James Mill on their assumption that all money is in circulation (Marx 1859: 164, 174, 181). For Marx, the quantity of money, M , is the quantity of money actually in circulation, and V is the velocity of circulating money. Money hoards are not included.

However, there is no fundamental difference between money in circulation and money in hoards. What is the supposed difference between coins in the individual's pocket waiting for the moment of purchase and coins locked up in a desk or in banks as money hoards? It is the frequency of their movements that is different: one making some moves in a certain time

period, the other less frequent moves to restore the equilibrium as required by the hoarding mechanism. Thus, they are different in their velocities. The distinction between 'active' and 'passive' money is non-existent. Money hoards are also part of money in circulation.

The alternative is to treat both money in circulation and money in hoards as the total quantity of circulating money (M), but different portions with different velocities. The aggregate money-velocity (V) is the average of the velocities of all portions of money. The flows between active money in circulation and idle money in hoards will affect the magnitude of the aggregate velocity, V , but they do not change the aggregate amount of money, M . This is the formulation adopted by the classical quantity theorists.

If the hoarding mechanism is analysed using the classical formulation, a strange picture of a monetary economy results. Any change in the price-sum of commodities (PQ) will be offset *completely* by the proportional change in the aggregate money-velocity (V). For example, if the price-sum increases, part of money in hoards will become active in circulation, resulting in a proportional increase in the aggregate money-velocity, leaving the quantity of money (M) constant. Likewise, an exogenous increase in money (e.g., a gold influx from abroad) will be neutralized *completely* by the proportional decrease in the aggregate velocity as the additional money flows into hoards, leaving the price-sum of commodities unchanged. *Hence, the anti-quantity theory is virtually a theory of perfectly elastic money-velocity (V) to neutralize any changes in the price-sum of commodities (PQ) or the quantity of money (M).* The working of such a perfectly sensitive money-velocity is unlikely to be true in an actual economy.

Fourth, the hoarding mechanism depends on the variation in the interest rate to trigger hoarding or lending and requires that the demand for money hoards is negatively related to the interest rate. However, if hoarding is to be so effective that it can absorb any exogenous changes in the quantity of money without price effects, the money hoard demand function must be infinitely elastic with respect to the interest rate. *It also implies that individuals' spending decisions are wholly unaffected by changes in the rate of interest* – a perfectly interest-inelastic spending function. This simplistic view is difficult to sustain in light of modern monetary theory.

Fifth, the anti-quantity theory maintains the view of an accommodative banking system. The law of reflux is based on the belief that no one will borrow money and pay interest if it is not needed in trade. So the charge of interest, regardless of the rate, is sufficient to prevent the note over-issue. In other words, the demand for loan capital is exclusively determined by the needs of trade and is not affected by variations in the interest rate (the perfectly interest-inelastic demand for loan capital). This view of the demand for loans is over-simplistic.

Sixth, according to the law of reflux, excess notes issued on securities purchase will return to the banks as deposits, leaving the amount of circulating

notes unchanged. However, anti-quantity theorists overlook the fact that the deposits thus created still constitute additional purchasing power of the public despite the same volume of real transactions and the same quantity of circulating notes.

Lastly, the law of reflux, as espoused by Tooke and Fullarton, requires that banks must follow the real-bills doctrine for the law to be effective. However, even if the bank does pursue the policy of discounting only short-term real bills in the belief that the quantity of note issue will always correspond to the volume of real transactions, and that the notes will return periodically as soon as the transactions are accomplished, note over-issue is still possible. Thornton (1802) was the first to put forward thorough criticisms of the doctrine. First, the same quantity of commodities is usually sold several times before it reaches consumers, and each time of sale and resale generates a real bill, resulting in several real bills for the same bundle of commodities. Second, the notes thus issued will finally validate themselves through their effect upon prices (i.e., more notes in circulation raise prices and the monetary magnitude of transactions, which will automatically require a larger quantity of notes). It will appear to individual bankers as if the anti-quantity theory were correct as the rising prices come *before* the rising demand for bill-discounting. Third, the banks under certain circumstances cannot even distinguish real bills from 'fictitious' bills. This is most likely under the situation of expansion-speculation when a large number of bills are generated in a short time period. Fourth, the real-bills doctrine is believed to prevent note over-issue through the periodic reflux of notes when debts fall due, but this prospect is based on the assumption that banks do not vary the quantity of bill-discounting over a given time period, so that the efflux and influx of notes are equal. However, if the banks are increasing the volume of bills being discounted, the influx of notes will be smaller than the efflux, and hence the rising quantity of circulating notes. Again, this is usually the case in the expansion-speculation phase of the cycle.

The banking history is full of financial crises. How are these phenomena explained away? Tooke and Fullarton inadvertently reveal their own logical flaw by blaming the banks for not following the real-bills doctrine and thus rendering the law of reflux ineffective (Tooke 1840: 154–5, 157–9). Their analysis of contemporary financial crises reveals that the law of reflux is no law at all; it is conditional on the real-bills policy, and hence is not an automatic mechanism. In short, there is no law of reflux in the world in which banks widely finance capitalist production by giving not only short-term credit (on 'real bills') but also long-term loans for large-scale investment (on 'fictitious bills').³

The hoarding mechanism and the law of reflux are good examples of the fallacy of extending the viewpoint of an individual banker into a general

³ Although Marx does not support the real-bills doctrine, there remains in Marx's framework the problem of how to substantiate the law of reflux without the doctrine.

economic principle. It is true that an individual banker cannot affect the needs of trade and the demand for loan capital, that the reflux is constantly taking place when the notes which the individual banker has previously issued return as loans mature, and that, if the banker over-issues notes, he will find his own bank's balance at the clearing house worsened, and he will feel pressure upon his limited volume of cash reserves, and hence will be forced to contract his note issue. However, if all banks act simultaneously and proportionally to increase their note issue, there will be no worsening of their balances at the clearing house. As long as banks have sufficient cash reserves, and the central bank stands ready as the lender of last resort, all the banks together can increase note issue at will. Moreover, under the competition between banks to command greater shares in the loan market, an increase in note issue by one bank may trigger increases in note issue by all other banks since each bank will try to defend its own share in the loan market. Again, this is more likely in the prosperity-boom period of the cycle.

5 Ricardian theory of the monetary mechanism

It is simplistic to say that Ricardo's monetary theory consists of only the quantity theory of money as espoused by Locke and Hume. Ricardo's theory of metallic money is logically linked to his labour theory of value, and his analysis of convertible and inconvertible paper money is based on his theory of metallic money.

In Ricardo's basic framework of metallic money, the value of gold money is determined by the quantity of labour producing it (i.e., the productiveness of gold mines in gold-producing countries). The labour value of gold money is subject to changes in the production condition and improvement in transportation. The exchange ratios between gold money and commodities are determined by their labour-value ratios, and the money-prices of commodities are determined when gold money is the standard of price. Other things being equal, the annual gold export from gold-producing countries to the rest of the world is equal to the annual wear and tear of the world gold stock (Ricardo 1821: 14–15, 44–5, 86–7, 352; 1951: 65, n*). Variations in the productiveness of gold mines can thus influence the labour value of gold money in world circulation and, hence, the money-prices of commodities. The speed and strength of the influence depends on the relative sizes of the gold export and the world gold stock. If the export is relatively large, the labour value of new gold output will rapidly affect the value of the existing world gold stock and the money-prices of commodities.

Ricardo did not make explicit the whole conceptual framework. It was left to Senior to elaborate the idea into a descriptive model in his *Three Lectures on the Value of Money* (1840). There is a distinction between the long-term labour value of gold money and its short-term market price. Like an ordinary commodity, the market price of gold money can deviate from its labour

value as a result of short-term disturbances, but will tend towards the latter in the long run.⁴ For instance, an exogenous increase in the demand for gold for non-monetary uses (in Senior's example, 'the use of gold plates by the Catholics') will cause the market price of gold to rise above its labour value. The higher market price of gold money is expressed as the lower money-prices of all other commodities, causing an above-average profit rate in the gold mining sector. Gold production and exports from the gold-producing country increase until the quantity of world gold supply rises to fulfil the larger demand. The market price of gold declines (or money-prices of commodities rise) and equals its labour value. The above-average profit rate in gold mining disappears, and the long-term equilibrium is restored with the larger world gold supply.⁵ The causation runs from changes in commodity prices to the quantity of money, just as in Marx's anti-quantity theory.

The adjustment process consists of variations in annual gold output which affects the quantity of the world gold stock. However, precious metals are extremely durable and the adjustment in gold production in response to disturbances takes time. The mechanism will be effective only if the size of annual gold output is large compared to the current gold stock such that the flow can rapidly effect changes in the stock and eliminate the disequilibrium. This is the case of flow dominating stock. *However, if annual gold output is small in relation to the world gold stock (the case of stock dominating flow), the mechanism becomes irrelevant and the regulating influence is reversed.* It is not that gold production regulates the world value of gold, but the other way round (Ricardo 1821: 193–4, 86–7; see also Senior 1840: 76).

In the general case, it can be assumed that the current world gold stock is very large and given, whereas annual gold output is so minimal that it can safely be ignored. Consequently, the labour-value of gold ceases to be a working analytical concept. *The current value of gold money in different countries is completely governed by short-term variations in its distribution among countries.* If it is assumed that the demand for money is stable under normal circumstances, implying a constant money-velocity, then the value of gold money depends on its own supply in a particular economy and the

⁴ To say that the market price of gold deviates from its labour value actually means the market exchange ratios between gold and commodities deviate from their labour-value ratios. The disequilibrium is expressed as the deviation of the market price from its 'natural price'.

⁵ Commodity prices will return to their initial levels and the market-price of gold money to its initial labour-value only if gold mines have constant costs of production, so that the labour-value of gold is constant throughout. Senior also considers the cases of increasing and decreasing costs of gold production in which variations in gold output affect the labour-value of gold. In the case of increasing costs, the new gold output will have a higher labour-value, raising the labour-value of world gold supply. When the new long-term equilibrium is attained, the commodity prices will be lower than the initial state. The opposite occurs in the case of decreasing costs.

distribution of gold between monetary and non-monetary uses. In an open economy, changes in the quantity of money in a country can be due to variations in international gold distribution expressed as external trade imbalances, which are, according to the specie-flow doctrine, caused by disequilibrium in international relative prices.

An open economy is in equilibrium when there is a right quantity of money so that the resulting domestic prices *vis-à-vis* foreign prices give rise to foreign trade balance. The exchange rate is 'at par' and there will be no gold movements internationally. All transactions can be settled by trading in the bills of exchange in the foreign exchange market without actual gold transfers 'as if the trade were barter'. Any excess or shortage of gold money in the economy brings about the deviation of domestic prices from equilibrium, a trade imbalance, the deviation of the market exchange rate from par, and international specie-flow, which will adjust the domestic price to equilibrium again.⁶

Ricardo's analysis of convertible paper money and the effect of inconvertibility is well known in literature on monetary theory. The equilibrium quantity of convertible notes in circulation is that amount of gold money otherwise in circulation and maintaining the equilibrium of international relative prices, trade balance, the identity between the mint price and the market price of gold, and between the par and the market foreign exchange rates (Ricardo 1821: 361, 168–9; 1951: 223–4). An excess or a shortage of circulating notes results in a trade imbalance, a premium or discount on bullion and international specie-flow forcing a reduction or an increase in note issue.

In a closed economy, the over-issue of notes results in a premium on gold bullion, a gold drain from bank reserves as notes are presented for gold coins which will be melted down and sold at a higher price in the free market. If the central bank continues to issue notes and tries to maintain the level of its gold reserve by buying gold back at the market price, this will fuel further inflation and give rise to a curious scenario in which the central bank buys gold dear and sells cheap. The bank will be forced to contract its note issue as inflation becomes more severe and its notes lose public confidence.

Inconvertibility lifts the danger of gold drains and gives the central bank the power to vary the quantity of circulating notes without any risk to its reserve. Once inconvertible notes are issued to 'excess', all symptoms of over-issue come into existence with no limit: rising commodity prices, a permanent premium on gold and deviation of the market exchange rate from par (Ricardo 1821: 147, 230; 1951: 71–2, 78, 91, 95–6). However, there is no gold drain although the market exchange rate stays beyond the gold export

⁶ On the international equilibrium of relative prices and the international distribution of specie, see Ricardo (1821: 137; 1951: 53–4, 57). On the determination of the exchange rate, see Ricardo (1821: 138–9, 148; 1951: 70–1, 370–1).

point. This is because the gold prices of commodities and the real terms of trade of the country are not affected. Internal and external trades in real terms stay the same in equilibrium, with only higher paper prices (Ricardo 1951: 64, n*, 80, 232). Thus, inflation under inconvertibility is a purely monetary phenomenon. Of course, Ricardo and his followers were well aware of the wealth redistribution effect of inflation and considered it unjust and socially harmful (Ricardo 1951: 93).

6 Conclusions

The anti-quantity theory in its original form espoused by Tooke and Fullarton, and in Marx's version, is far from being a consistent theory of monetary mechanism. It is a one-sided viewpoint of an individual banker on the working of the money market outside his bank, mistaken as the general principle of monetary theory. With its view of the accommodative banking system, it is understandable why the theory is appealing to Marx. With his aim being to show that the capitalist crisis is not a monetary phenomenon but rooted in capitalist production, he is too hasty to import the anti-quantity theory into his framework, as the supplement to his original and important theory of value-form and capital-form which gives a critical role to money in capital accumulation and crises, hence rendering Marx's overall monetary theory incoherent.

Marx's adherence to the anti-quantity theory has affected all Marxian writers on money. A few of them mention Marx's anti-quantity relation and the hoarding mechanism, but all of them are unaware of theoretical problems in Marx's monetary theory. See, for example, Dobb's 'Introduction' to Marx (1859: 16), Junankar (1982: 114–15), Itoh (1988: 93, 96) and Weeks (1981: 109–10, 111–12, 117, 118–19, 120). Hilferding (1910: ch. 2) acknowledges the reflux of notes as the hoarding mechanism under capitalism. De Brunhoff (1976) writes extensively on Marx's 'esoteric theory' but very briefly on the 'exoteric side', endorsing Marx's anti-quantity theory of gold money and hoarding, hoarding-equal-dishoarding in simple reproduction, the anti-quantity theory of bank notes, the primary role of the needs of trade and the reflux of notes in the banking circuit (de Brunhoff 1976: 31–2, 35–6, 37, 40, 67–8, 80–3). Thus, all these writers are uncritical of Marx's anti-quantity theory.

An alternative to the anti-quantity theory is Ricardo's monetary theory. However, the theory suffers from classical weaknesses such as the narrow view of the function of money as the means of exchange. This is a result of Ricardo's belief in Say's law, and hence his assumption of the constant money-velocity and the strictly proportional relation between the quantity of money and prices. The concept of money-velocity which is variable and sensitive to 'public confidence and changes in the interest rate' was developed by Thornton, pointing towards the replacement of the concept of

money-velocity by the modern concept of money demand. Torrens expands Ricardo's concept of money to include 'auxiliary media' such as secondary deposits and other credit instruments, pointing towards the modern concept of the broad money supply.

However, all these classical writers misconceived the nature of capitalist cycle and crisis as an accidental or a monetary phenomenon, whereas Marx has readily provided a theory of accumulation, crisis and its monetary expression.

The anti-quantity theory, the hoarding mechanism and the law of reflux must be banished from Marx's theory. Marx's theory of value form and capital form does *not* logically involve the anti-quantity theory of money and the concept of perfectly elastic money-velocity. The only logical requirement in Marx's value-form theory is that money can be the object of hoarding, and that at least a part, but not necessary all, of additional money can be hoarded: the variable money-velocity. Marx's theory of value-form and money is not logically inconsistent with the Ricardian monetary theory as modified by Thornton and Torrens. Benefits include the analysis of the inflationary process and its effect on class-income redistribution and capital reproduction, the effect of monetary policy management and, not least, the incorporation of international trade and capital movements into the basic Marxian framework of a capitalist monetary economy.

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11

The New Interpretation and the Value of Money

*Makoto Itoh*¹

This chapter examines the significance of the so-called new interpretation of Marx's theory of transforming values into prices of production in the first section, as well as remaining related issues in the second section, focusing on the definitions of the value of money and the value of labour-power. Since an important shortcoming of the new interpretation is the absence of any theory of the exchange-value of money, we shall try to fill this gap in the subsequent sections. After assessing Moseley's analysis of the value and exchange-value of commodity money in the third section as a corollary, the chapter examines the dynamic mechanism through business cycles to determine the exchange-value of money commodity in the fourth section. The fifth section briefly explores what happens to the exchange-value of money in the regime of contemporary non-commodity money.

1 The significance of the value of money in the new interpretation

A 'new interpretation' of Marx's theory of transforming values into prices of production was presented by Foley (1982, 1986) and Duménil (1983). The new interpretation is based on a particular definition of the value of money as the monetary expression of labour time. More concretely, the value of money is conceived as 'the ratio of the net domestic product at current prices to the living productive labor expended in an economy over a period of time' (Foley 2000: 21), and thus it represents the average amount of expended labour time obtainable by a unit of money (say, a dollar). For example, in the USA in the early 1980s, the aggregate national value added

¹ This chapter was rewritten and revised through repeated exchange of email messages with Fred Moseley, besides arguments and comments at the Mount Holyoke conference. I hope that some results of our patient dialogue interest our readers. I am grateful also for Moseley's editing of my English.

was about \$3 trillion, while about 100 million employed (productive) workers expended 200,000 million hours (2,000 hours each) a year. Therefore, one hour of labour contributed \$15 of value added, and the value of a dollar was one-fifteenth of an hour (four minutes) of social labour (Foley 1986: 14–15). This notion of the value of money is different from Marx's notion of the value of the money commodity, as embodied labour time in a unit of the money commodity. It is, however, conceived as a useful notion in solving the transformation problem. According to Foley (1986: 95–104), the logical structure of the traditional approach to the transformation problem is exemplified as follows.

A simple model of economy with two sectors – wheat and steel – is assumed, where a technological input–output table is given:

Product	Input			Output
	Wheat	Steel	Labour	
Wheat	0	1/4	1	1
Steel	0	1/2	1	1

The labour value of a unit of steel (v_s) is calculated as 2 from an equation $v_s = 1 + [1/2]v_s$, and then the labour value of wheat (v_w) must be 3/2. Suppose the economy produces 10,000 units of wheat and 10,000 units of steel by these technologies, with the rate of surplus value (s/v) equal to 100 per cent. If we assume prices directly proportional to labour value (value-prices) such as in Marx's *Capital*, Volumes I and II, and if one unit of labour is expressed a dollar, the relations of production in both wheat and steel sectors can be summarized in dollar terms as follows:

Sector	c	v	s	$c+v+s$	p	s/v	$r(\%)$
Wheat	5,000	5,000	5,000	15,000	\$1.50	1	50.00
Steel	10,000	5,000	5,000	20,000	\$2.00	1	33.33
Total	15,000	10,000	10,000	35,000		1	40.00

c : constant capital; v : variable capital; s : surplus value; p : price of a unit of product; r : the rate of profit.

In *Capital*, Volume III, Marx introduces the notion of prices of production, which equalize the rates of profit across industries through the competition of capitals. When values or value-prices are transformed into prices of production, prices no longer realize equal exchange of labour time embodied in commodities, but redistribute surplus value. In Marx's conception, cost prices are the sum of $c + v$ in each sector, remaining in terms of value-prices, and average profits are added to them according to the equalized rate of profit to form the prices of production. From the above example, the price

of production of wheat must become \$1.40, and that of steel \$2.10, redistributing \$1,000 of surplus value from the wheat industry to the steel industry by forming a general rate of profit of 40 per cent. Thus the transformation problem remains how to transform not just values of outputs, but also values of inputs of industrial sectors into prices of production.

In the traditional treatment of the problem following Bortkiewicz (1907) and Sweezy (1942), the value of labour-power is defined as the labour time embodied in the worker's necessary means of consumption, which is to be kept constant through the logical procedure of transforming values into prices of production. In the above numerical example, the value of labour-power in this definition must be 1/2 for a unit of labour, embodied in 1/3 unit of wheat. Then, the unit prices of production of wheat (p_w), and steel (p_s), the general rate of profit (r), and wage rate (w) must be in the simultaneous equations as follows, on the basis of given technological input-output relations:

$$p_w = [1+r]([1/4]p_s + w)$$

$$p_s = [1+r]([1/2]p_s + w)$$

$$w = [1/3]p_w$$

It is possible to solve these equations for r and the ratio of prices p_s/p_w : $r = 39.45$ per cent, and $p_s/p_w = 1.5354$. To these equations, any normalization condition could be added to obtain the absolute prices. For instance, either total profit equals total surplus value (in the value-price system), or total prices equal total values can serve as such an additional condition. However, it is generally impossible to maintain both of these aggregate equalities, except in very special cases, although Marx maintained both of these equalities as logical social linkages between values and prices of production.

Foley and Duménil's new interpretation was initially presented to resolve such riddles in the traditional approach. In its essence, it intends to show that prices of production represent social redistribution of labour time expended in the process of production through monetary form in capitalist competition. With this intention, Foley and Duménil redefine the main concepts of both the value of money and the value of labour-power. The value of money is conceived as the monetary expression of labour time, or the social amount of labour time obtainable by a unit of money (four minutes of labour per dollar in the early 1980s in the USA, or one hour per dollar in the above example). The value of labour-power is conceived as the amount of social labour time workers receive in the form of wages in return for an hour of labour, or the nominal wage rate multiplied by the value of money (half an hour in the above example). By holding constant these values of money and labour-power, Foley and Duménil maintain that the riddles in the transformation problem can be solved in Marx's spirit. In the case of numerical example above, the wage rate remains

1/2 (or 0.5 dollar), and the value added in two sectors remains 20,000 (dollars), both unchanged in the prices of production system through the transformation procedure. Thus we have equations in dollar terms as shown below:

$$p_w = [1 + r]([1/4] p_s + 1/2)$$

$$p_s = [1 + r]([1/2] p_s + 1/2)$$

$$10,000 (p_w - [1/4] p_s) + 10,000 (p_s - [1/2] p_s) = 20,000$$

By solving these equations for p_w , p_s and r , we get the table below in terms of prices of production by the new interpretation:

<i>Sector</i>	<i>c</i>	<i>v</i>	<i>s</i>	<i>c+v+s</i>	<i>p</i>	<i>s/v</i>	<i>r(%)</i>
Wheat	5,520	5,000	3,960	14,480	\$1.448	1(0.79)	37.65
Steel	11,040	5,000	6,040	22,080	\$2.208	1(1.21)	37.65
Total	16,560	10,000	10,000	36,560		1	37.65

In this interpretation, both of two aggregate equalities in Marx's theory of prices of production are true in the following sense. The equality between total values and total prices is reinterpreted to mean that the total values added are represented by total prices of net product, or that total value added divided by the value of money is identical to the total prices of net product. The other aggregate equality between total surplus value and total profit is interpreted to mean that the total amount of unpaid labour or surplus labour is represented by total profit and redistributed through equalized rates of profit. By using the redefinitions of the value of money and the value of labour-power, total nominal value added in national economic accounts is conceived as representing total social living labour time in a period, the total gross profit represents total surplus labour, and the rate of exploitation is directly identical to the aggregate profit-wage ratio. So long as the 'value of money' is defined as monetary expression of living labour time on a social scale, and the value of labour-power is wages multiplied by the 'value of money', the social relations between total profit and surplus labour, or between the aggregate profit-wage ratio and the rate of surplus value, can essentially hold unchanged, not just in the system of equilibrium prices of production to equalize the rates of profit, but also in the non-equilibrium economy with market prices deviating from prices of production, as underlined by Freeman and Carchedi (1996).

In sum, the new interpretation contains interesting contributions to the Marxian labour theory of value and its actual relevance to contemporary capitalism.

2 Issues related to the new interpretation

However, there remain a series of issues concerning how to assess the new interpretation from the view of Marx's own theory of value, especially concerning the redefinition of the value of money.

The first concerns Shaikh and Tonak (1994: 179), who raised a critique that the new interpretation is not new, but is 'nothing more than Adam Smith's second definition of labor value as living labor commanded by price', which Ricardo and Marx decisively rejected. Against this, Foley (2000: 26) argued that Smith defined labour commanded as the amount of labour a commodity could command through its price and wage rate (p/w), whereas, in the new interpretation, 'the definition of monetary expression of labor time as the ratio of the value of the net product at market prices to the living labor expended in a period does not involve the level of money wages (and thus not Smith's conception)'. In my view, Smith's labour commanded theory of value itself is not simple but complex and dual. In one aspect, it defines labour commanded as the amount of labour a commodity can command through its price over wage rate (p/w), as Foley says. However, in another aspect, it defines labour commanded as the amount of labour embodied in commodity products obtainable through exchanges of commodity products at their prices. To this second aspect of Smith's labour commanded theory of value, the value of money in the new interpretation as well as the deduced social relations of labour in its theory of prices of production is rather close. Such a theoretical concern about how much labour time is obtained through the monetary expression of values as prices or wages must be an important point of view also in Marx's labour theory of value as a whole.

The second issue is raised by Fine, Lapavistas and Saad-Filho (2002), who point out that the new interpretation is inspired by the Rubin school in defining the amount of abstract labour through prices. In fact, Foley (1983) notes that 'for a detailed discussion of the labor theory of value see Rubin'. And so far as the new interpretation does not present a theory of determining prices from the labour embodied in commodity products, and concentrates on the *ex-post* social relations of labour time obtained (in the macroeconomy) by prices, it may well go along with the Rubin school. Indeed, there is a clear shortcoming in the new interpretation concerning how to explain the social objective system of determination of prices as an important theoretical aspect of the labour theory of value, against the subjective marginalist theory of prices. However, the theoretical concern in the new interpretation can be separated from the Rubinite theory of value, and can be reoriented as an aspect of development of the traditional non-Rubinite Marxist approach. In particular, the amount of total living labour time in a year in the new interpretation is not defined through prices in a market, unlike in the Rubin school, but defined as the amount of objectively expended labour in the process of production. So long as the new interpretation intends to see the social

relations of distribution of such objective amounts of social labour expended in the process of production through prices in a market, its notions of value of money and value of labour-power may have certain relevance also to the non-Rubinite Marxian theory.

The relevancy of these notions is, however, in estimating approximate social relations of distribution of labour time, and not exact enough in solving the transformation problem, which is the third issue. Let us return to the numerical example already used. As the value of money (a dollar represents an hour of labour time) and the wage rate (0.5 dollar per hour) are kept constant, in the system of prices of production, the total wages (10,000 dollars) seem to correspond to the total value of labour-power (10,000 hours) obtained through the value of money, and the total profits (10,000 dollars) to the total surplus labour. However, as Foley adds, if workers consume only wheat, the constant wage rate of \$0.5 now buys 0.3453 units of wheat (at \$1.448 a unit), which embodies 0.518 hours of labour, instead of 1/3 unit of wheat (at \$1.5 a unit) containing 0.5 hours of labour in the original table of the value-price system. In my view, it means that the exact amount of total social labour time obtained through wages must be 10,360 hours ($20,000 \times 0.3453 \times 3/2$), and not 10,000 hours, so long as the technological basis of production does not change. And the exact amount of labour time obtained through total profits (10,000 dollars) must not be 10,000 hours, but 9,640 hours contained in both 3,094 units of wheat and 2,500 units of steel, which constitute social surplus products.² The exact rate of surplus value must therefore become 0.93, and not 1.0. If 6,906 units of wheat or 10,360 hours of labour time embodied in them are socially necessary to reproduce labour-power to expend 20,000 hours of labour in the economy, then the value of labour-power in the original value table must be rewritten as 5,180 in both sectors instead of 5,000, and the surplus labour must be 4,820 in both sectors from the beginning. Thus, there is a confusing inconsistency in the treatment of real wages and the amount of labour time to be expended and re-obtained as the substance of the value of labour-power in the new interpretation.

Including a similar intention to see the social relations of distribution of living labour time at a macro-level through the monetary expressions, my own solution of the transformation problem by using three tables (showing the substance of value produced in terms of hours of labour time, the prices of production in terms of dollars, and the substance of value acquired through prices in terms of hours of labour time), instead of two traditional

² Moseley's footnote at the end of section 1.5 in chapter 12 of this volume presents an objection on this point. However, Marx's second aggregate equality between total profit and total surplus-value, as well as his first, must be analysed not just in terms of forms of value or 'value of money' in the new interpretation, but more exactly in terms of the substance of value or labour-time embodied in commodities and acquired through prices.

tables (value calculation and price calculation, where units are ambiguous), must serve as a frame of reference to discern more consistently the social relations between the amounts of labour time expended in production and the amounts of labour time obtained through prices of production (Itoh, 1980: ch. 2; Itoh 1988: ch. 7). My treatment can show not just the macroeconomic relations concerning the value added, but also the microrelations concerning the whole substance of value ($c + v + s$) of each product and its monetary expression in the price of production, as well as the substance of value acquired ($c + v + s'$) through prices. What Marx intended to say in his two aggregate equalities can then become more consistently understandable. It must be equalities between the substance of total value embodied in commodities produced and the substance of value acquired through prices, or between total surplus labour as the substance of surplus value produced and the total surplus value in terms of labour acquired through total profit. The theory of prices of production must show such social relations through the theoretical analysis of the substance of value embodied in commodities, prices of production as the concrete form of value, and the substance of value acquired by each industrial sector, capitalists and workers.

From this more exact analytical standpoint, the main conclusions in the new interpretation concerning direct proportionalities between total profit and social surplus labour, between total wages and social labour time obtained by workers, and between the social ratio of profit against wages in value added and the rate of surplus value, can be valid only in very special cases, such as when wages and profit are expended on the same compositions of commodities. However, so long as we are aware of such theoretical inexactness in general cases, the way to see the social macroeconomic relations between the social amount of labour time expended and value added, or between aggregate wages and labour time obtained by workers, and between aggregate gross profit and surplus labour, the new interpretation is a practically useful approximation to interpret the annual national income accounts in the Marxian approach. Independent of the new interpretation, I myself interpreted the Japanese national value added or net national product in 1986 (296 trillion yen) as a result of total social labour time expended in the year (about 100 billion hours = 2,102 hours \times 47.6 million workers), or 2,960 yen per hour of labour, or 6.22 million yen a year per worker; and further, since the annual average income of employees is 3.86 million yen, I estimated an approximate rate of surplus value as being 61 per cent $[(6.22 - 3.86) \div 3.86]$: Itoh 1989). Such a way of estimation must in its essence be in accord with the main insights of the new interpretation.

Another shortcoming of the new interpretation is that it lacks a theory of determining the exchange value of money, or inverse of general price level, despite its emphasis on the role of money in a capitalist market economy, and this is the fourth issue I wish to explore. This may be related to its concentration on the macroeconomic relations, by somewhat neglecting

microeconomic price theories in light of the labour theory of value. As a consequence, the value of money is de-linked from the substance of value or the quantity of labour time embodied in a money commodity, and reinterpreted as applicable similarly both to the monetary regime based on the gold standard and to that based on an inconvertible currency system, as an *ex-post* definition. At least one of the important roles of value theory is to explain the social mechanism of determining relative ratios of exchange among commodities. For general commodity products, such ratios are represented by relative prices as a form of value. An important objective of the theory of prices of production, as well as the theory of more concrete movement of market prices, is to analyse the actual forms of value on the basis of the labour theory of value.

For money, which serves as the material for expressing exchange-values of general commodities, the expression of exchange values or form of value is not given by its price, unlike other commodities. The specific relative form of value of money is only given in the endless series of prices of the other commodities. 'We have only to read the quotations of a price-list backwards, to find the magnitude of the value of money expressed in all sorts of commodities' (Marx 1867: 189). The inverse of the general price index must statistically be very close to such a relative expression of exchange value of money. However, it is not easy to explain the social mechanism of the determination of the exchange-value of money. If we ever raise this problem, we have to take into account differences in monetary regimes, as an essential frame of reference.

3 The value and exchange-value of the money commodity

So long as money appears as a general equivalent anarchically chosen by all the other commodities in the process of development of forms of value among commodities, it must originally be one of commodities which are suitable for such a role, like gold. Thus the basic theory of money must be presented in a model of economy with commodity money as in *Capital*.

Although the notion of the value of money in the new interpretation is formally indifferent to the monetary regimes, what does it mean in an economic model of the transformation procedure with commodity money?

Just as the new interpretation holds the value of money unchanged through the transformation from values into prices of production, Moseley (2000), who is sympathetic to the new interpretation, likewise argues that commodity money gold must maintain its exchange value through the transformation procedure. According to him, unlike other commodities gold has no price, and is exempt from transformation of value-prices into prices of production. Since the gold industry obtains its surplus-value directly in the form of money, and does not participate in the sharing of surplus-value, the total price of all other commodities remains unaffected and equal to their total value-price.

Moseley assumes that the organic composition of capital (c/v) in the gold mining industry is lower than the social average so as to obtain a higher than the average rate of profit in the model of value-prices. If the rate of profit of the gold industry is subject to the equalization of the rate of profit as a whole, then the exchange value of a unit of gold must be lowered by a rise in the general price level as in the traditional transformation procedure dating from Bortkiewicz. This would contradict the basic position of the new interpretation, such as the constant relative value of money, or invariable total prices through the transformation procedure. Aligning himself with the new interpretation on this point, Moseley stands for a view that a gold industry with organic composition lower than the social average must always gain extra profit beyond the average rate of profit as a whole, and that equalization of profit rate is applied just to the least productive gold mines utilizable for capitals under the unchanged price level. As he notes, Yaffe (1975) and Naples (1996) presented a similar view on the exchange-value of money commodity with a higher than average rate of profit in the gold industry.

It is, however, theoretically unclear in Moseley's argument why the exchange value of gold is given and fixed in the model of value-prices to realize equal exchange of labour-time, and not affected by the process of competition among capitalists to equalize the rate of profit across industries. Although the gold industry directly obtains its surplus-value in the form of money as a result of production, as he stresses, it does not prove no-sharing of surplus-value in the case of the gold industry. The cost prices in the gold industry to be spent ($M - C$) may well be altered when value-prices are transformed into prices of production so as to change the surplus-value obtained (ΔM) in the same industry. As equal exchange of labour-time is broken in the system of prices of production, it is also highly dubious if the gold industry can obtain the same amount of labour embodied in ΔM through purchasing other commodities, without sharing surplus-value. Moseley's analysis does not explicate the social relations of labour-time behind the price system, unlike the new interpretation, and leaves these as a problem to be investigated further.³ This problem in his analysis can be extended to the

³ In a footnote on page 198 of chapter 12 in this volume, Moseley contrasts my argument against his. Besides negligence of the substantial social relations of labour-time behind the price system, his assertion that 'a definite quantity of surplus gold produced in a given period cannot change to a different quantity in this period' seems to me unsuitable to the problem of how to understand transformation of distribution of surplus-value from the economic model of value-prices into that of prices of production. His analysis of the multi-period process of equalization of profit rate after the footnote must be more appropriate to the issue. His analysis there, however, unlike the ordinary treatment of the transformation problem, introduces both a change of representative technical basis of gold production into the least utilizable mines with average rate of profit, and therefore the issue of differential rent.

interpretation of the substance of value of differential rent, which must be paid by capitalists to use better gold mines, and the substance of a seemingly lower rate of surplus-value in the least fertile mines (see Itoh 1988: 242, on the former issue).

In any case, if the economy with value-prices realizes a social balance of production based upon equal exchange of labour-time embodied in average in various products, the transformed economy with prices of production in Moseley's view must expand production of gold towards the least productive mines with average profit. In the usual land products, such as agriculture, the marginal land to be used is determined by the formation of market value or market price of production, which balances social need and supply of the products (Marx 1894: ch. 10). We have to examine further how such a market mechanism to carry through the law of value works in the case of a money commodity such as gold, as a theory of determination of exchange value of money commodity.

4 The mechanism of determining the exchange-value of gold money

It is, however, not easy to clarify the social mechanism to adjust social demand for and supply of gold, as well as its exchange-value in relation to the working of the law of value. Ricardo's quantity theory of money presented a model where excessive supply of gold directly and proportionally raises the general price level or lowers the exchange value of gold, and vice versa, by assuming all the quantity of gold is used just as means of circulation. Against this, Marx critically argued several points. The necessary quantity of means of circulation is socially determined by the prices based on labour value, quantities of commodities to be exchanged in the market for the period, and velocity of money. Commodity money gold exists not merely in the form of means of circulation, but also as hoards and a stock of bullion to be held as a store of wealth or material for luxurious goods. Thus hoards and stock of gold serve as a social pool to adjust the necessary quantity of means of circulation besides the flow of production of gold, and excessive supply of gold may not necessarily cause a rise in general prices but may be absorbed by an increase of hoards or stock of gold.

In fact, a rise in prices of commodity products in the phase of prosperity and a fall in prices in the phase of crisis and depression in the course of business cycles cannot be explained by alternation from excessiveness to shortage of supply of gold money. They are due to the whole complex mechanism of capital accumulation including the working of expansion and contraction of credit system (Itoh and Lapavistas 1999, ch. 6). In the normal course of business cycles, prices rise in the final phase of the prosperity including the effect of expansion of speculative trading by fully utilizing the flexible credit system, then fall sharply in the crisis with destructive

contraction of the credit mechanism, and stagnate at a low level in the depression due to reduced effective demand for investment and consumption.

As technical conditions of production in the gold industry would not change rapidly in a short period, a rise of prices towards the end of a period of prosperity implies higher input prices and higher per unit costs in the production of gold. Hence the rate of profit in the gold industry must fall. It compels the gold industry to reduce production from the least fertile mines. The reduction of gold output must have two effects. First, it reduces effective demand by the gold industry, which is analogous to the tendency for exports to decline and imports to increase due to a rise in domestic prices. Second, it additionally tightens the availability of reserves to banks and the central bank at a time when credit has greatly expanded, and thus promotes additionally the rise in the rate of interest, which serves as a factor in turning speculative prosperity into crisis.

The subsequent sharp fall and stagnation at a low level of both prices and wages conversely reduce the costs of production in the gold industry, and improve its profitability. Marginal mines that could not be profitably operated previously now come on-stream, and gold output rises. Analogous to the effect of a rise in exports due to a fall in domestic prices, the increase in gold outputs helps to boost the effective demand and partially mitigates the depression. It also helps to augment the reserves of the banking system. Such an effect to expand gold production may remain even in the new upswing, if the prices might be below the level of previous upswing as a result of competitive pressure of technological innovation during the depression. The competitive pressure for innovation is obviously much milder in the gold industry.

The increased supply of gold under the circumstances meets the wide range of flexible demand for gold in a capitalist economy. The social demand for gold comes from circulating money, hoarded money, bullion, and materials of ornaments and other manufactured products. The annual supply of gold adds just a small portion of socially existing stock of gold in these various forms. The perished annual amount of gold is supplied flexibly, not just by newly produced gold, but also from the existing stock. Besides, the credit system elastically economizes means of circulation and payment among capitals. Thus, the balance between the annual supply of gold and the social need for gold for various forms of existing stock is not simple and direct.

Therefore, it would usually take much longer for the law of value to regulate the social reallocation of labour as for the gold industry through the changes in the exchange-value of gold in relation to the labour value so as to adjust the balance between its social demand and supply. The elevated exchange-value of gold expressed in the lowered prices so as to promote expansion of gold production would not rapidly readjust, and may not cancel even through a business cycle if a rise in prices towards the end of a period of prosperity is not strong and lasting enough. In such a case, the

effects of extra profit in the gold industry can be three-fold: continuous increase in investment and production in the gold industry, a rise of absolute rent for landowners of gold mines, and a rise both in the market value of gold and differential rent by opening up less fertile gold mines. However, so long as gold supply continues to expand and eventually exceeds the social demand for raw materials, additions to circulating money and planned additions to the hoards of individuals and other economic agents, the excess is likely to lead to extra commodity purchases and easier credit expansion, resulting in partially boosting effective demand, and pushing the price level even gradually upward. The process might last for several business cycles, and potentially leads to the emergence of protracted secular trends in the price level, forming long waves of prices. In any case, as Vilar (1960) demonstrated in his historical study, the movement of falling prices in the world market in the regime of gold money was a strong factor in the drive to increase gold production, and the whole movement of prices depended on the changes in the value of gold, though its rapidity was different in various historical periods. When the general price level becomes too high and unfavourable to the gold industry, the whole adjustment mechanism turns in the opposite direction. The exchange value of money commodity is thus in principle not stable, but subject to the law of value through anarchical fluctuation in the process of competitive movement of capitals across industries, eventually equalizing the rate of profit of the gold industry (if slowly compared with other industries). In this wider context, a certain relevance of the quantity theory of money may be synthesized with Marx's theory of value and exchange-value of money. (See chapter 10 in this volume for remaining problems in Marx's anti-quantity theory of money.)

5 What happens under non-commodity money

What can we deduce about the contemporary economies with non-commodity money from the analyses above?

There can be a variety of economic regimes with non-commodity money. The regime of non-commodity money under the completely floating international exchange rates since 1973 is one of such instances. In comparison with the previous regime under the Bretton Woods international monetary system with fixed exchange rates, the exchange value of money has obviously become much more unstable. As direct convertibility (in case of dollars) and indirect convertibility (in case of other currencies) with gold were lost, the regulatory role of the labour value of commodity money for adjusting the exchange value of money – even slowly through long waves – disappeared. Supply of central bank notes as a typical non-commodity money and credit largely lost the international discipline based on the necessity to hold certain levels of gold reserves or foreign currency reserves in central banks.

A destructive vicious inflationary crisis thus occurred at the beginning of the 1970s as a result of the much-expanded supply of bank notes and credit in the collapsing process of the Bretton Woods system, which was combined with the impact of overaccumulation of real capital in relation to limitation of supply of both the labouring population in advanced countries and primary products in the world market. It included also the effect of the first oil shock. Stagflation followed, including the effect of the second oil shock. It is clear that contemporary non-commodity money has largely lost its stable anchor for its exchange value, unlike under the regime of gold money where the value of gold served, if not rapidly, as a gravitational anchor for the exchange value of money. A strong bias for inflation or a decline of exchange value of money was thus generated.

When inflation gains and proceeds, structural distribution of income and assets is naturally distorted and altered in real terms. As capitalist firms are usually the main debtors and working households are the main source of savings to lend, inflation favours the former and harms the latter. Keynes's strategy to give euthanasia to wealthy rentiers in favour of industrial investment by means of inflation has become dubious in its effect in this context. When nominal incomes among wage earners, pensioners and irregular workers tend to lag behind the pace of inflation and become stagnant in the period of stagflation, their real incomes, besides their savings and pension funds, are adversely affected by inflation, even though the Keynesian policies mitigate the unemployment problem to some extent. Similarly, when most of the prices of primary goods stagnated and then slid down in the world market from the 1980s, due to both stagnation and economizing technological innovations, the countries exporting primary goods (largely in the Third World) became severely hit by inflation.

Monetary instability has remained even when general inflation has calmed down through neoliberal tightening of monetary policy and by continuously depressed wages and prices of primary products in advanced countries since the beginning of the 1980s. Fully utilizing the more and more efficient informational technologies, speculative trading of foreign currencies and various securities has increased, with all its concomitant instability. The size of speculative trading of foreign currencies in the world, for example, has grown enormously in these two decades and reached more than a hundred times the amount necessary for real trade, travel and so forth.

Speculative trading in shares and real estates caused huge bubbles towards the end of the 1980s in advanced countries, typically in Japan. The destructive bursting of the bubble melted down in the 1990s over a thousand trillion yen of asset value in the Japanese economy. Similar bubbles and their collapse caused the Asian crisis of 1997 in many other Asian countries, and were repeated in the American IT bubble that lasted until 2000.

Including the vicious after-effects of such collapses of bubbles, deflation and continuous depression have become a serious economic problem since

the 1990s. We had tended to assume that an inflationary bias is easily spread under the regime of non-commodity money where Keynesian policies can operate. However, we are realizing that under certain historical conditions Keynesian fiscal and monetary policies are just not effective, but rather counterproductive for economic recovery, by deepening the fiscal crisis of the state and increasing the burden on the shoulders of socially weak persons and workers. Hoarding has increased and has been difficult to mobilize with much intensified liquidity preference due to worries about the future and lack of promising opportunities for industrial investment.

Thus, even under the regime of non-commodity money in our age, the simple quantity theory of money would not work. It is noteworthy that all the monetary instability that causes inflation, speculative trading and depressive deflation is intrinsic to the capitalist market economy, as Marx's theory of money has already shown, though the instability is wildly extended in the contemporary regime of non-commodity money. Mainstream economics in a broad sense, including both Keynesian and neo-liberal economics, as well as confused economic policies guided by them, are blind to this fact.

In retrospect, the definition of value of money in the new interpretation is applicable even to the contemporary non-commodity money as an *ex-post* static notion in relation to the macroeconomic national accounts. However, as a theoretical frame of reference, it is unsuitable to explicate such fundamental monetary instability of capitalist economy, as well as the specific nature of contemporary monetary instability. It can be interpreted as a static and a-historical notion even applicable to socialist 'money' such as the rouble in a planned economy, though such an interpretation may be not intended by the 'new interpretation' theorists. Marx's own theory of money, including its notion of value and exchange value of money commodity, is a more useful theoretical frame of reference to analyse the workings of different monetary regimes, including the current one. In these regards, the definition of the value of money in the new interpretation is of limited use as a convenient supplementary notion from a certain point of view of economies, and should be utilized always upon the ground of Marx's own broader theory of money, not as a substitute for it.

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12

Money has no Price: Marx's Theory of Money and the Transformation Problem

*Fred Moseley*¹

According to the standard interpretation of the 'transformation problem' in Marx's theory, the money commodity (e.g., gold) is treated as essentially the same as all other commodities. In the first place, it is assumed that the money-commodity has a value-price (price proportional to labour-time)² and also has a price of production, which could be different from its value-price, just like all other commodities. Second, it is argued that, in the transformation of value-prices into prices of production, some surplus-value is transferred from the gold industry to all other industries in order to equalize the rate of profit. Finally, as a result of this transfer of surplus-value from the gold industry to all other industries, the prices of production of all other commodities increase, so that the total price of production of commodities is greater than their total value-price. In this chapter, Bortkiewicz and Sweezy will be considered as the representatives of the standard interpretation of Marx's theory of money and the transformation problem in particular (with the former the originator of the standard interpretation).

This chapter argues that this standard interpretation of the transformation is mistaken on all three of these important points, which concern the role of money and the transformation problem in Marx's theory. I argue that the money commodity has neither a value-price nor a price of production, so that a transformation of the former into the latter is not possible. Further,

¹ Thanks very much to all the conference participants for helpful comments on my chapter, especially to Makoto Itoh and Claus Germer. Remaining errors are of course my own.

² Marx called these prices that are proportional to labour-times (as he assumed in Volume I) simply 'values'. But 'value' is a complicated concept, which includes not only the form of appearance of value – prices – but also the substance and magnitude of value: abstract labour and socially necessary labour-time. Many interpreters of Marx think that 'value' refers only to labour-times, when in fact Marx usually means price. Therefore, I use the term 'value-price' (instead of the simpler 'value') to refer to prices that are proportional to labour-times, in order to emphasize that the aspect of value that I am primarily concerned with here is the *price* of commodities, as the necessary form of appearance of their value.

I argue that in the transformation of value-prices into prices of production, surplus-value is *not* transferred from the gold industry to other industries, but instead the profit received in the gold industry is always identically equal to the surplus-value produced in the gold industry. Finally, I conclude that, since there is no transfer of surplus-value from the gold industry to other industries, the prices of production of other commodities cannot possibly be affected by such a non-existent transfer, and the total price of production of commodities is always identically equal to the total value-price of commodities, as Marx himself concluded.

The first section presents my interpretation of the role of money in Marx's theory in general and in the transformation problem in particular, and then the second section critically examines the Bortkiewicz–Sweezy interpretation of Marx's theory of money and the transformation problem.

1 Marx's basic theory of money and the transformation problem

1.1 Money has no price

Marx's basic theory of money is presented in Part I of Volume I of *Capital*. The most important conclusion of Marx's theory of money in Part I, which is relevant to the role of money and the transformation problem, is that the money commodity (e.g., gold) itself *has no price*.³ According to Marx's theory in Part I, the *price* of a given commodity is the outward, visible expression of the value of commodities (i.e., the socially necessary labour-time contained in commodities) in terms of a quantity of the money commodity (e.g., gold). It follows from this concept of price (e.g., a quantity of gold) that gold itself cannot have a price, because the socially necessary labour-time contained in gold cannot be expressed in terms of gold itself, but can only be expressed in terms of some *other* commodity. Marx emphasized from the very beginning of his theory of money (in the discussion of the 'simple form of value' in section 3 of chapter 1) that the commodity whose value is being expressed and the second commodity which serves as the measure of value of the first commodity are 'mutually exclusive' from each other (i.e., a commodity cannot serve as its own measure of value): 'The same commodity cannot, therefore, simultaneously appear in both forms in the same expression of value. These forms rather *exclude each other as polar opposites*' (1867: 140; emphasis added). And elsewhere:

[M]oney has no price. In order to form a part of this relative form of value of the other commodities, it would have to be brought into relation with itself as its own equivalent.

(Marx 1867: 189; emphasis added)

³ Williams (1975: 23), and Yaffe (1976: 35) also emphasize this point.

Gold has neither a *fixed* price *nor any* price at all, when it is a factor in the determination of prices and therefore functions as money of account. In order to have a price, in other words to be expressed in terms of a *specific* commodity functioning as the *universal* equivalent, this other commodity would have to play the same exclusive role in the process of circulation as gold. But two commodities which exclude all other commodities would exclude each other as well.

(Marx 1859: 75)

The *price* of the commodity which serves as a measure of value and hence as money, *does not exist at all*, because otherwise, apart from the commodity which serves as money I would need a second commodity to serve as money – double measure of value ... *There can therefore be no talk of a rise or fall in the price of money.*

(Marx and Engels 1861–3a: 426; emphasis added, except for emphasis on ‘price’)

We will see below that, in Marx’s theory of prices of production in Volume III, since gold does not have a price, there is no price of gold that could be transformed from a value-price to a price of production.

1.2 Circulation of capital in the gold industry

Since gold has no price, the circuit of capital is different in the gold industry from all other industries. The value-product of the gold industry is not a commodity with a price, but rather a definite quantity of gold itself. Gold is not like all other commodities, which have to be sold in order to be converted into money. Instead, gold is *already money*, as a result of the production process itself, prior to circulation. Therefore, the circuit of capital in the gold industry is represented by the following unique, abbreviated formula:⁴

$$M - C \dots P \dots M'$$

Notice that the third phase of the circuit of capital in the gold industry is simply M' , instead of the usual $C' - M'$. The price of the commodity-product (C') is missing, because gold has no price. The product of gold production is money itself (M'), not a commodity with a price that has to be converted into money.

Marx discussed this unique form of the circuit of capital in the gold industry in the following passages from Volume II of *Capital*.

⁴ Howell (1975: 53), also emphasizes this unique form of the circulation in the gold industry.

The formula for the production of gold, for example, would be $M - C \dots P \dots M'$, where M' figures as the commodity product in so far as P provides more gold than was advanced for the elements of production of gold in the first M , the money capital.

(Marx 1884: 131)

Let us firstly consider the circuit of turnover of the capital invested in the production of precious metals in the form $M - C \dots P \dots M'$ Let us start by considering only the circulating part of the capital advanced as M , the starting-point of $M - C \dots P \dots M'$. In this case *a certain sum of money is advanced* and cast into circulation in payment for labour-power and in order to purchase materials of production. The money is not withdrawn again from circulation by the circuit of *this* capital, and then cast in afresh. The *product in its natural form is already money*, it does not need to be first transformed into money by exchange, by a process of circulation ... The money form of the circulating capital, that consumed in labour-power and means of production, is replaced not by the sale of the product, but rather by the *natural form of the product itself*.

(Marx 1884: 401–2; emphasis added)

We will see below that, because the value-product of the gold industry is a definite quantity of gold (M'), this quantity of gold remains the same in both the theory of value and surplus-value in Volume I and in the theory of the distribution of surplus-value and prices of production in Volume III.

1.3 Surplus-value in the gold industry

The surplus-value produced in the gold industry during a given circuit of capital (S_G) is equal to the difference between the quantity of gold produced at the end of that circuit (M'_G) and the initial quantity of money-capital advanced at the beginning of the circuit to purchase means of production and labour-power (M_G). Algebraically:

$$S_G = \Delta M_G = M'_G - M_G \quad (12.1)$$

We have just seen that the value-product of the gold industry at the end of the circuit is not a commodity with a price, but is rather a *definite quantity of gold produced* (M'_G). In Marx's theory, this quantity of gold is *taken as given*, as the *actual* quantity of gold produced in the gold industry during a given circuit of capital.

Furthermore, I argue that the initial money-capital advanced at the beginning of the circuit (M_G) is also *taken as given*, as the *actual* quantity of money-capital advanced to purchase means of production and labour-power in the gold industry. This assumption is consistent with my general interpretation of Marx's method of determination of the initial money-capital (taken as

given, as the actual money-capital advanced) in the theory of surplus-value in Volume I, as presented in Moseley (1993, 2000 and 2003). Similar interpretations of the determination of the initial money-capital in Marx's theory of surplus-value have been presented by Yaffe (1976), Mattick (1981), Carchedi (1984) and Ramos (1998–9).

It follows that, since the value-product of the gold industry (M'_G) is the actual quantity of gold produced, and the initial money-capital (M_G) is the actual quantity of money-capital advanced in the gold industry, the surplus-value in the gold industry ($S_G = \Delta M_G$) is equal to the difference between these two actual quantities (i.e., is equal to the *actual* surplus gold produced, over and above the actual initial money-capital advanced). Unlike all other industries, the surplus-value in the gold industry does not consist of a part of the price of the output (since gold has no price), but instead *consists of a definite quantity of surplus gold 'from the start'* (i.e., as the direct result of the production process itself, prior to circulation. Howell (1975: 53) also emphasized that 'the surplus-value contained in gold appears immediately in socially recognized form').

This important point is discussed in the following passages (the first from chapter 17 of Volume II on the circulation of surplus-value, and the second from an earlier draft of this chapter in the *Manuscript of 1861–63*):

The gold-producing capitalists possess their entire product in gold, including the part of it which replaces constant capital, the part which replaces variable capital, and the part which consists of surplus-value. One part of the society's surplus-value thus consists of gold, and not of products that are turned into money only in the course of circulation. It consists of gold from the start and is cast into the circulation sphere in order to withdraw products from this.

(Marx 1884: 410; emphasis added)

[In the gold or silver industry], *surplus-value is directly in gold or silver as a surplus of gold or silver.*

(Marx and Engels 1861–3b: 193; emphasis added. See also p. 191)

1.4 Profit in the gold industry: no 'sharing' of surplus-value

Volume III of *Capital* is about the *distribution of surplus-value*, or the division of the total surplus-value produced in a given circuit of capital into individual component parts: first the equalization of the profit rate across industries (Part II), and then the further division of surplus-value into industrial profit, commercial profit, interest, and rent (Parts IV–VI). The equalization of the profit rate across industries analysed in Part II involves the determination of the *prices of production* of commodities. The transformation of value-prices

into prices of production redistributes the surplus-value produced in a given circuit across industries, in such a way as to equalize the rates of profit in all industries. The result of this redistribution of surplus-value is that the profit received in each industry is in general *not* equal to the surplus-value produced in that industry. In this way, there is a ‘sharing’ of surplus-value among capitalists, like ‘hostile brothers [who] divide among themselves the loot of other people’s labour’ (1861–3a: 264), or like a form of ‘capitalism communism’, in which the profit received in each industry is proportional to the total capital invested in that industry, rather than equal to the surplus-value produced in that industry (Marx and Engels 1975: 193; see Moseley 1997 and 2002 for further discussions of Marx’s theory of the distribution of surplus-value in Volume III).

However, according to Marx’s theory, there is *no sharing of surplus-value between the gold industry and other industries*, because the profit received in the gold industry is *always identically equal* to the surplus-value produced in the gold industry. We have seen above that the surplus-value produced in the gold industry (S_G) is the actual quantity of surplus gold produced that is, it is equal to the difference (ΔM_G) between the actual quantity of gold produced (M'_G) and the actual money-capital advanced in the gold industry (M_G):

$$S_G = \Delta M_G = M'_G - M_G \quad (12.2)$$

Similarly, the profit received in the gold industry (Π_G) is also equal to this *same actual surplus quantity of gold produced* (ΔM_G): that is, it is equal to the same difference between the actual quantity of gold produced (M'_G) and the actual money-capital advanced in the gold industry (M_G):

$$\Pi_G = \Delta M_G = M'_G - M_G \quad (12.3)$$

Since gold has no price, it also has no price of production. There is no price of gold that could be transformed from a value-price to a price of production, in order to share surplus-value and equalize the rate of profit in the gold industry. Instead, as we have seen above, the value-product of the gold industry is a definite quantity of gold produced (M'_G), which is the same for the determination of both the surplus-value produced in the gold industry (equation 12.2) and the determination of the profit received in the gold industry (equation 12.3).

Similarly, the quantity of initial money-capital (M_G) is also *the same* in both of these equations – the *actual* quantity of money-capital advanced in the gold industry at the beginning of the circuit of capital – which is *taken as given* both in the determination of the surplus-value produced and in the determination of the profit received in the gold industry. Again, this assumption is consistent with my general interpretation of Marx’s method of

determination of the initial money-capital in the theory of surplus-value in Volume I and the theory of prices of production in Volume III (the *same* quantities are taken as given – the *actual* quantities of money-capital advanced – in both these stages of the theory), as presented in Moseley (1993, 1997 and 2003).

Since both the value-product in the gold industry (M_G^v) and the initial money-capital advanced in the gold industry (M_G) are the same in both equation (12.2) and equation (12.3), it follows that *the profit received in the gold industry is always identically equal to the surplus-value produced* in the gold industry (i.e., $\Pi_G = S_G = \Delta M_G$). Thus, according to Marx's theory, *there is no 'sharing' of the surplus-value* produced within a given circuit of capital between the gold industry and all other industries. The surplus-value produced in the gold industry within a given period is a definite quantity of actual surplus gold produced, which cannot change into a different quantity of profit through the sharing of surplus-value with other industries.⁵

This conclusion, that there is no sharing of surplus-value between the gold industry and other industries in the single-period transformation of values into prices of production, does not imply that there is no equalization of the profit rate in the gold industry as the result of an actual multi-period process of adjustment, involving capital flows in and out of the gold industry, the opening and closing of marginal mines, and so on. For example, if the rate of profit in the least productive mines were higher than the average rate of profit, then less productive mines would be opened, and these less productive mines would have a lower rate of profit, because less surplus-value would be produced. This process would continue until the rate of profit in the least productive mines allowed only for the average rate of profit (and vice versa, if the rate of profit in the least productive mines were lower than the average rate of profit).⁶

⁵ Makoto Itoh (chapter 11 above) accepts that surplus-value in the gold industry is a definite quantity of gold produced in a given period, but he denies the conclusion that therefore the profit received in the gold industry cannot be different from the surplus-value produced in the gold industry. But this conclusion follows of logical necessity: a definite quantity of gold produced in a given period cannot change to a different quantity in this period.

Itoh argues that the quantity of surplus-value may change through a change in the input prices from values to prices of production. On the contrary, I argue that the logic is the opposite: since the quantity of surplus-value in the gold industry cannot change (because it is a definite quantity of gold produced), this implies that the input prices must be the same in the determination of both values and prices of production.

⁶ Actually, there is usually not complete equalization of the rate of profit in the gold industry to the average rate of profit, because gold is a privately-owned natural resource, whose production must in general yield a rent for the owners of the gold mines. Therefore, the rate of profit in the gold industry must be greater than the average rate of profit for the economy as a whole. (Similar interpretations of Marx's

However, this actual multi-period process of equalization of the profit rate in the gold industry is different from the theoretical transformation of values into prices of production, which is assumed to take place within a single analytical period of production, with no capital flows, and with fixed quantities of inputs and outputs (i.e., is assumed to take place in a 'long period' of analysis). Even though there is a multi-period process through which the rate of profit is equalized, as described above, it is still nonetheless true that, in Marx's single-period theoretical transformation of values into prices of production, *there is no sharing of surplus-value* between the gold industry and other industries. Marx's single-period transformation analyses the end result of the multi-period process of equalization just described. The single-period transformation assumes that the economy is in 'long-period' equilibrium, with the same quantities of inputs and outputs for the determination of both values and prices of production.

Thus there can be an actual equalization of the rate of profit in the gold industry over multiple periods, but there is no equalization in the single period transformation of values into prices of production. The rate of profit in the gold industry can be equal to the average rate of profit, but this can be true only because the rate of profit *produced* in the gold industry is equal to the average rate of profit (through the multi-period process of adjustment described above), *not* because the rate of profit *received* in the gold industry is different from the rate of profit *produced* in the gold industry (through a theoretical single-period transformation of values into prices of production). The rate of profit *received* in the gold industry is always identically equal to the rate of profit *produced* in the gold industry.⁷

theory of a higher than average rate of profit in the gold industry have been presented by Williams 1975 and Naples 1996.) But this point is not fundamental. Whether or not rent must be paid in the gold industry, there is still a tendency over multiple periods towards the equalization of the profit rate in the gold industry by the process described in the text, either to the average rate of profit or to the average rate of profit plus the average rent.

⁷ In the first draft of this chapter for the conference, I argued that there is no actual multi-period equalization of the profit rate in the gold industry, because at that time I was unaware of the process of equalization described in the text. The only possible process of equalization that I was aware of at that time was the one suggested by Bortkiewicz: that changes in the quantity of gold currently produced would result in a change in the prices of all other commodities.

I argued that Bortkiewicz's equalization mechanism contradicts Marx's theory of money and prices, and in particular Marx's theory of the relation between the quantity of money in circulation and the sum of the prices of commodities. Marx's theory assumes that the quantity of money in circulation is *determined by* the sum of prices, while Bortkiewicz's alleged equalization process assumes the opposite: that the quantity of money in circulation *determines* the sum of prices (as in the quantity theory of money, which Marx severely criticized).

1.5 Total price of production equal total value-price

I have argued previously that *both* of Marx's two aggregate equalities (total price of production = total value-price *and* total profit = total surplus-value) are *always identically true* by the nature of Marx's logical method (see Moseley 1993, 2000 and 2003). These equations are not conditional equalities, which may or may not be true, but rather follow from Marx's method of determination of price of production and profit.

This conclusion is not affected by the consideration here of the nature of money and role of money in the distribution of surplus-value across industries. Since the gold industry does not participate in the sharing of surplus-value, the prices of production of all other commodities cannot be affected by a non-existent sharing of surplus-value in the gold industry. Hence the total price of production of all other commodities is also not affected, and remains identically equal to the total value-price of all commodities. Since the aggregate price level does not change, neither does its inverse, the exchange-value of money. This point will become clearer after the discussion of Bortkiewicz and Sweezy's misinterpretation of Marx's theory in the next section.⁸

I still think that this specific argument is valid, and that the rate of profit in the gold industry is not equalized *in Bortkiewicz's way*. But now I realize – due in large part to discussions at the conference with Makoto Itoh and others – that there is another possible mechanism of equalization of the rate of profit in the gold industry that does not contradict Marx's theory of money and prices (through direct changes in surplus value produced in the marginal mines, as described in the text). I have since discovered that Mandel (1984) presented a similar interpretation of the actual equalization of the profit rate in the gold industry. However, Mandel conflates the actual equalization of the profit rate over multiple periods with the single-period theoretical equalization of the profit rate through the transformation of values into prices of production. These are two distinct processes. The latter analyses the end result of the former.

My main point is that, whether or not there is a multi-period equalization of the profit rate in the gold industry through the opening and closing of marginal mines, the rate of profit cannot be equalized in the single period transformation of values into prices of production, because this single-period theoretical transformation assumes a given quantity of mines in operation, and concludes that the quantity of surplus-value in the gold industry is a definite quantity of gold produced, not a part of a price, which could become a different magnitude in the transformation of values into prices of production.

⁸ Itoh (chapter 11 above) argues that, even if total price of production is equal to total value, it is still true that the total price of surplus goods will not be equal to the total value of surplus goods. The latter inequality is true, but it is not Marx's second aggregate equality. Rather, Marx's second aggregate equality is: total profit = total surplus-value. This equality is always true, according to my interpretation of Marx's theory (as it is in the 'new interpretation' of Foley and Duménil) (please see Moseley 1997, 2000, 2003 for a demonstration of this second aggregate equality).

2 Bortkiewicz and Sweezy's misinterpretation of money in Marx's theory

The rest of the chapter critically examines Bortkiewicz and Sweezy's interpretation of the role of money in the transformation problem in Marx's theory. In general, Bortkiewicz and Sweezy do not understand the uniqueness of the money commodity in Marx's theory and treat the money commodity just like all other commodities. This is their fundamental mistake. It is assumed that the money commodity has both a value-price and a price of production, just like all other commodities, contrary to Marx's theory. It is also assumed that, in the single-period transformation of values into prices of production, the rate of profit in the gold industry is equalized through a sharing of surplus-value, just like all other industries. From these assumptions, Bortkiewicz and Sweezy conclude that the total price of production of commodities is greater than the total value-price of commodities. The following subsections examine these mistakes in turn.

2.1 Money has a price and a price of production

Bortkiewicz and Sweezy assume that the money commodity (e.g., gold) has both a value-price and a price of production that equalizes the rate of profit, just like all other commodities.⁹ The unit of measurement of the value-price of gold is a definite quantity of gold (e.g., one ounce of gold), just like the value-price of all other commodities. Thus, the value-price of 200 ounces of gold is – 200 ounces of gold! But this makes no sense, from the point of view of Marx's theory. The price of gold cannot be a quantity of gold because, according to Marx's theory, price is the measure of value for commodities, and the value of gold cannot be measured or expressed in terms of gold itself. The value of gold can only be measured or expressed in terms of some other commodity. Therefore, the Bortkiewicz–Sweezy interpretation starts off with a fundamentally incorrect concept of the 'price' of gold in terms of gold itself.¹⁰

Similarly, in the Bortkiewicz–Sweezy interpretation, gold also has a 'price of production', whose unit of measurement is also a definite quantity of gold, but whose magnitude *could be different* from the value-price of gold. But how is this possible? How is it possible for the price of production of 200 ounces of gold to be different from 200 ounces of gold? According to

⁹ Bortkiewicz uses the term 'value' to mean 'price proportional to labour-time'. In order to make it clear that 'value' here means a price, I will continue to use the term 'value-price' to refer to price proportional to labour-time.

¹⁰ Yaffe (1976: 35–37) and de Brunhoff (1976: 69–71) have also criticized Bortkiewicz and Sweezy for their failure to understand that the money commodity has no price. De Brunhoff said: 'If money is treated as a unit of account possessing a price, it loses its specificity' (p. 71).

Bortkiewicz and Sweezy, by changing the unit of measurement for the price of production of gold! For example, if the unit of measurement were 1/2 ounce of gold, then the price of production of 200 ounces of gold would be 400 half-ounces of gold! The magnitudes of the value-price and the price of production of 200 ounces of gold would be different, because the same 200 ounces of gold would be measured in different units (Bortkiewicz 1907: 12 and Sweezy 1942: 117).

Such a conception of the 'price of production' of gold is obviously totally foreign to Marx's theory of prices of production. In Marx's theory, the unit of measurement for both the value-price and the price of production of commodities is the same: a definite, given quantity of gold (e.g., 1 ounce of gold). Furthermore, such a conception of the price of production of gold also has no significance in reality. Even though the magnitude of Bortkiewicz and Sweezy's price of production of gold is different from the value-price of gold, the value-product of the gold industry – the quantity of gold produced (M_G) – *remains exactly the same and cannot change* (200 ounces of gold), as Marx emphasized. This actual 200 ounces of gold is what matters in the real capitalist economy. This magnitude of gold produced is compared with the initial money capital advanced in the gold industry (M_G) in order to determine the surplus-value produced in the gold industry ($S_G = \Delta M_G$), and in order to determine the profit received in the gold industry ($\Pi_G = \Delta M_G$). Bortkiewicz's invention of something called a 'price of production' of gold, that could be measured in different units from the price of gold, has no significance whatsoever for the determination of the actual surplus-value produced and the actual profit received in the gold industry.

2.2 Sharing of surplus-value between the gold industry and other industries

The second and most important mistake made by Bortkiewicz and Sweezy is that they assume that, in the transformation of values into prices of production, the rate of profit is equalized through the *sharing of surplus-value* between the gold industry and all other industries. As a result of this sharing of surplus-value, the profit received in the gold industry is (in general) *not equal* to the surplus-value produced in the gold industry. More specifically, as we have seen, Bortkiewicz and Sweezy assume that the gold industry has a lower than average composition of capital, and thus has a higher than average 'value rate of profit'. Hence, in the equalization of the profit rate, some of the surplus-value (supposedly) produced in the gold industry is transferred to other industries with a higher composition of capital.

The mechanism through which this sharing of surplus-value between the gold industry and other industries is supposed to happen, according to Bortkiewicz and Sweezy, is that the *inputs* of constant capital and variable capital *change* (i.e., these inputs are different in the determination of prices of production from how they are in the determination of value-prices).

According to this interpretation, in the Volume I theory of value and surplus-value, constant capital and variable capital in the gold industry (and elsewhere) are assumed to be equal to the *value-prices* of the means of production and means of subsistence, respectively. Thus we can see that, according to this interpretation, constant capital and variable capital in Volume I are *not* equal to the *actual* quantities of money-capital advanced to purchase means of production and labour-power in the gold industry, but are instead to these *hypothetical* quantities of money-capital, which are equal to the value-prices of the means of production and means of subsistence (C_G^* and V_G^* , where the superscript * indicates these hypothetical quantities of money-capital equal to value-prices).

Furthermore, since constant capital and variable capital in the gold industry are hypothetical quantities, so also is the surplus-value in the gold industry that is determined by these hypothetical quantities. Surplus-value in the gold industry is determined by subtracting these hypothetical quantities of constant capital and variable capital (whose sum is M_G^*) from the value-price of gold, which is equal to the actual quantity of gold produced (M'_G). Algebraically:

$$S_G^* = M'_G - M_G^* \quad (\text{where } M_G^* = C_G^* + V_G^*) \quad (12.4)$$

Thus we can see clearly that S_G^* is a hypothetical quantity of surplus-value because M_G^* is a hypothetical quantity of initial money-capital advanced.

In the Volume III theory of prices of production, according to this interpretation, the inputs of constant capital and variable are *redetermined* as equal to the *price of production* of the given quantities of means of production and means of subsistence, which are in general *not* equal to the value-prices of these goods. These revised quantities of constant capital and variable capital are equal to the *actual* quantities of money-capital advanced to purchase means of production and labour-power in the gold industry. Therefore, these *actual* quantities of C and V are *different* from the *hypothetical* quantities of constant capital and variable capital in Volume I (i.e., $C_G \neq C_G^*$, $V_G \neq V_G^*$, and $M_G \neq M_G^*$). In Bortkiewicz and Sweezy's famous numerical example, $C_G^* = 50$ and $C_G = 64$, $V_G^* = 90$, and $V_G = 96$.

Since $M_G \neq M_G^*$, it follows from equations (12.3) and (12.4) that $\Pi_G \neq S_G^*$. In other words, *the profit received in the gold industry is not equal to the surplus-value produced* in the gold industry, according to this interpretation. There is 'sharing' of hypothetical quantities of surplus-value between the gold industry and other industries, because the inputs of constant capital and variable capital change. In Bortkiewicz and Sweezy's numerical example, $S_G^* = 60$ and $\Pi_G = 40$.

All this is clearly contrary to Marx's theory. We have seen above that, in Marx's theory, the inputs of constant capital and variable capital *do not change* in the transformation of values into prices of production. Instead, the

quantities of constant capital and variable capital are *taken as given*, and furthermore the *same quantities* of constant capital and variable capital are taken as given in the determination of both the surplus-value produced in the gold industry and the profit received in the gold industry: the *actual* quantities of money-capital advanced to purchase means of production and labour-power in the gold industry (M_G).

We have also seen above that the value-product of the gold industry is also the same in the determination of both the surplus-value produced in the gold industry and the profit received in the gold industry: the actual quantity of gold produced (M'_G). Therefore, it follows, as we have seen above, that the surplus-value produced in the gold industry is *always identically equal* to the profit received in the gold industry: that is, $\Pi_G = S_G = M'_G - M_G$. According to Marx's theory, there is *no 'sharing'* of the surplus-value between the gold industry and other industries in the single period transformation of values into prices of production. The surplus-value produced in the gold industry within a given period is the actual quantity of surplus gold produced, which cannot change into a different quantity through the sharing of surplus-value with other industries. It is not a hypothetical quantity of surplus-value (S_G^*) which changes into the actual quantity of profit (Π_G), as in the Bortkiewicz–Sweezy interpretation.

2.3 Total price of production not equal to total value-price

We can now understand why Bortkiewicz and Sweezy reach the erroneous conclusion that the total price of production of commodities is greater than the total value-price of commodities. As we have seen, Bortkiewicz and Sweezy assume that the composition of capital in the gold industry is below average, and thus the 'value' rate of profit in the gold industry is above average. According to their interpretation, in order to equalize the rate of profit in the gold industry, surplus-value is transferred from the gold industry to all other industries (with a higher composition of capital). This transfer of surplus-value from the gold industry to other industries is accomplished by means of an increase in the prices of these other commodities. Therefore, the total price of production of commodities is greater than the total value-price of commodities, because of this alleged transfer of surplus-value from the gold industry to other industries.

However, we have seen above that, in Marx's theory, there is no sharing between the gold industry and all other industries. Surplus-value in the gold industry is a definite quantity of actual surplus gold produced, which has neither a value-price nor a price of production, and which therefore cannot be shared with other industries. Therefore, there can be no change in the prices of production of other commodities as a result of this non-existent transfer of surplus-value in the gold industry.

Consequently, Bortkiewicz and Sweezy's conclusion that the total price of production of commodities is greater than the total value-price of

commodities *does not apply to Marx's theory*, but instead applies only to Bortkiewicz and Sweezy's misinterpretation of Marx's theory. According to Marx's own logic, the total price of production of commodities is always equal to the total value-price of commodities, and the total profit is always equal to the total surplus-value. Neither of these two aggregate equalities is affected by the sharing of surplus-value in the gold industry because, as we have seen, there is no sharing of surplus-value in the gold industry. Both these two aggregate equalities are always true, by the nature of Marx's logical method. They are not conditional equalities which may or may not be true, depending on the composition of capital in the gold industry, or the units of measurement for value-prices and prices of production.

Therefore, I conclude that the standard interpretation of Marx's theory of money and the transformation problem, as represented by Bortkiewicz and Sweezy, is a complete and fundamental misinterpretation, which leads to erroneous conclusions.

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13

Marx's Contribution to the Search for a Theory of Money

Suzanne de Brunhoff

The theory of money that Marx developed as part of his theory of capitalism has long been neglected or subject to criticism. However, there are several reasons to revisit this theory at present: because it may require updating; to see whether it is a historically useful way of analysing nineteenth-century capitalism; to determine whether it remains relevant for analysis of twentieth and twenty-first century capitalism; and/or to compare it with some other, possibly less satisfactory, modern theories of money. These varying reasons are related to one another but are not the same.

The present chapter has opted to try to understand why Marx began Book 1 of *Das Kapital* with a theory of money in its market circulation form (section 1), its ultimate goal being to determine this concept's relevance to some of the roles that money plays in modern capitalism (section 2).

1 Money and capital according to Marx

Many of the authors who use Marx as a reference have dismissed the conception of money he presented right at the beginning of *Das Kapital*, either because they disagreed with his theory of labour value or because in their opinion this theory did not apply to money. Critical analyses of capitalism have rarely delved into the role played by money as such, preferring to focus on finance whilst disconnecting this particular sphere from the monetary conditions in which it is enshrouded; hence the need to recall a few aspects of Marx's theory of money that are integrated into his analysis of commodity circulation and the access of workers to wage goods.

1.1 Labour value and the role of money

Marx used his studies of the circulation of commodities and money to criticize other conceptions that construe money either as a way of bartering commodities characterized by their different use values and/or as a mere unit of accounting. He criticized the dominant quantity theory of money, which determined the value of money in reference to the quantity of money

in circulation, with the price of money being defined as the inverse of the general price level, $1/P$. Here higher prices for goods (i.e., inflation) would translate into a lower price for money, and lower prices for goods (i.e., deflation) into the opposite. After Marx, Keynes (1930) criticized the 'tautological' nature of this quantitative conception; but after having first tried to find a substitute for it during his attempts to develop a monetary standard of prices, Keynes ultimately gave up, stating in 1936 that the main attribute of money was its 'liquidity' in comparison with other financial assets.

Marx argued that money does not have a price. It generates the monetary price of commodities, meaning that it cannot give a price to itself; hence his central proposition that 'commodities enter into circulation with a price and money with a value'. To demonstrate that these two aspects are inseparable, one has to agree that money is more than a mere unit of account (although it is this as well) and that goods' monetary prices comprise one condition of their social valuation by those who exchange them.

The present study does not seek to review the labour value of commodities or the genesis of money in a commodity form (i.e., gold, construed here as a 'general equivalent' for all other goods). The debate has already been very clearly presented and discussed elsewhere in this volume. But we do need to insist upon money's role as a standard of price, and its relationship to credit operations.

1.2 The gold standard and institutions

As Martha Campbell, Duncan Foley and other authors discuss in their contributions to this volume, money in its commodity form (gold) possesses several functions and several forms. Marx highlighted its commodity valuation measurement function, indicating all the while that the value of gold, itself a product of labour, could also vary. Before him, Ricardo had sought an 'invariable measure of value' to serve as a standard of price for goods. As a commodity, gold also possesses its own unstable labour value, 'but it is the only commodity that can serve as a standard so nearly approaching an invariable one'.

Marx followed another approach, distinguishing between money as a measure of value and money as a standard of price. He did this by introducing the gold standard's institutional aspect, whereby the state ensures that a currency circulating across its territory can be converted into gold, meaning into a predefined weight of gold. For example, in England one ounce of gold used to be worth '£3 17s. 10½ *d.*' and currency units were freely convertible into gold. The gold standard's institutional regime also turned money into a unit of price accounting within any given national territory. This implied both forced intervention by the state and also specific monetary institutions. One was the Mint, where gold bars were turned into coins denominated in sterling. Note that the Mint was a public entity reporting to the (Central) Bank of England. 'Coins are the material form of bullion

when currency is a legal tender' (1867: 124) and 'coining, like the establishment of the standard, is the business of the State' (1867: 124–5). Money was seen as being able to assume a variety of forms, depending on the different functions it would be fulfilling in a given space of circulation. Within the frontiers of the state, it takes the form of a currency. There are now gold, the 'universal money', the gold standard connection between different states, and national currencies.

When money as a 'measure of value [form] becomes a standard of price, its functional existence absorbs ... its natural existence' (1867: 129). But this did not mean that the state controls its own currency in the gold standard regime. The 'universal money' form is not a sort of 'international currency' shared by all nation-states. The international gold standard regime that operated between 1870 and 1914 did not abolish the division of the world into spaces comprised of nation states. There was both a consensus (the common Gold Standard) and competition between the main capitalist countries. Despite the global prestige of the pound sterling, sometimes considered to be 'as good as gold', the Bank of England still had to build up gold reserves. The City of London's international financial role clearly played a crucial role but, at the same time, the English monetary space extended well beyond the country's borders, running throughout the British Empire, which was much more widespread than the colonial possessions of France or any other capitalist country of the time.

The different capitalist states all needed gold reserves to 'settle their national balances' via 'means of payment' they could use with one another. According to Marx, gold alone, as 'a universal equivalent form of all the commodities' (1867: 139) that human labour produces, possessed the quality of universal money. It remains that the division between national capitalist states led to 'compulsory State action' (1867: 129), one result being that countries applied a gold standard to their own currencies. The gold standard was supposed to accomplish the goal 'of integrating capitalist countries' (Foley, chapter 2 above), but its international adoption from 1880 until 1913 was far from eliminating rivalries between capitalist states.

1.3 The 'monetary system' and the 'credit system'

Before examining the characteristics of the capitalist 'credit system', Marx had already introduced this topic at the beginning of *Das Kapital*. First of all, he saw credit as a modification of the commodities/money/commodities exchange, which in a market circulation mode necessarily takes place in a *simultaneous manner*. Credit introduces the notion of time (i.e., the amount of time that elapses between *C* and *M* if the commodity buyer does not immediately pay the seller in hard cash). The two parties to this exchange, one having become a creditor and the other a debtor, are building up a specifically constrained *institutional* relationship that is governed by contract and law.

A credit contract possesses 'the shape of a legal claim upon money' (1867: 136). This is money that has assumed two forms, one as a unit of accounting for sums due and the other as a means of payment for a final settlement. Contracts will establish a settlement date. 'If the debtor does not pay, his commodities will be sold by the sheriff' (1867: 136). What we have here is institutional constraint depicted as an inherent aspect of any credit relationship, the reason being that it constitutes the monetary relationship's temporal manifestation. Marx extended this to other monetary settlements 'beyond the sphere of the circulation of commodities' (1867: 140): that is, to all contracts replacing 'payments in kind with money payments', such as rents, taxes, and so on. Much in the same way as Rosa Luxemburg would later describe peasants in colonized countries, Marx saw this as yet another cause for agricultural poverty.

In his introduction to the credit system, Marx referred to the role played by 'specialised [banking] institutions' that use an 'artificial regime of settlements' to create a clearing system for loans and debts denominated in a given accounting currency. Here, money in its means of payment form becomes 'loan money', except if a crisis has broken out; in which case, dematerialized credit money, in the form of the 'ideal shape of money of accounting, [is transformed] into hard cash' (1867: 138). So the curse of credit money has contradictory features. It functions as a closed circuit of financial transactions, as if money was only a unit of account with a use value. But it can be disrupted by unexpected events (such as big changes in prices of assets, settlements difficulties, etc.) which affect the basic functions of money as a general means of exchange.

1.4 The transformation of money into capital (*Capital*, Volume I, Part II)

Critics of Part I of Volume I of *Das Kapital* express the idea that Part II is the true beginning of Marx's analysis, in the sense that it was here that he first presented his ideas on the existence of a capitalism-specific production relationship. In reality, however, this was Marx's way of introducing one particularity of capitalism's exploitation of a monetary wage-remunerated workforce. Contrary to what Sraffa said on this subject (1960), this sort of wage should not be assimilated with cattle feed or machine fuel. Neither is it a mere basket of wage-goods whose basic composition needs to be understood to help us assess worker consumption, an approach followed by Adam Smith and Ricardo in their attempts to ascertain which profit-affecting costs are incompressible.

After focusing on market circulation and monetary constituents, in Part II Marx briefly presented the worker-capitalist relationship, viewing this as an exchange between two owners of different types of commodities: one possessing labour-power to be sold to a 'money-owner, Mr Moneybags', and the other making use of this power. When analysed thus, the labour market

functions via contracts between *de jure* equal actors. 'Both are free, equal owners ... and work together to their own advantage' (1867: 147). According to Marx, this is the impression we would get if our analysis went no further than the sphere of circulation. It is also the vision that generated the illusions of 'Free Trade Vulgaris'.

However, this means that capitalists need access to money-capital and, at the same time, that workers' monetary wages have become the social condition that will enable them to access indispensable consumption commodities. These ideas cannot be found in Adam Smith and Ricardo, preoccupied as they were by the minimal composition of a basket of wage-goods (salt, candles, leather, etc.) that are defined by their use values and therefore expressed in profit-affecting cost terms for employers. For these authors, class division was a natural state of affairs in modern societies and wage-earning was better than slavery or serfdom, since it allowed free access to the consumption goods that modern society produces. Walras, a neoclassical author, would later broach the same topic using an entirely different theory of value. Marx on the other hand, in introducing the labour-exploitation relationship specific to capitalism, needed to demonstrate that the monetary wage is an exchange relationship that is indispensable as money wages and money capital are necessary conditions of the capitalist relationship of production.

Another aspect of this same issue is Marx's criticism of labour-money, a system where purchasing vouchers are distributed to workers based on the number of hours they put in. This was an anti-capitalist reform that had been suggested by the socialists Owen and Proudhon. Marx said that this sort of money has no more value than a theatre ticket. Moreover, in his opinion it inferred that wages distribution can comprise a social division of labour between individual workers, a proposition that is in contradiction with capitalism.

We have seen why and how money became a crucial element in the analysis of capitalism that Marx derived from his conception of labour value. But what has survived from this idea now that money is no longer embedded in a commodity form such as gold?

2 Money and modern capitalism

Credit money issued by banking systems is the form of money in modern capitalism. Within countries, currencies are the national units of account, without any reference to gold since 1971. For international transactions, they are convertible into one another, by means of different regimes of rates of exchange. Marx's theory of money appears to be obsolete. If it still suggests analytical elements for understanding contemporary money, we have to look at the meaning of the 'dollar standard' and the constraint of money as means of payment.

At a theoretical level, utility value began to replace labour value as far back as the 1870s, even as the gold standard regime was starting its international career. The financial sphere also started to develop considerably between 1870 and 1914, something analysed by Hilferding, who ultimately abandoned the idea of a labour value of money. This was also a period marked by the development of national price index statistics and tabular standards. Earlier concerns about monetary price standards were replaced by a new focus on the levels of and variations in prices that are denominated in national units of accounting defined by the states themselves.

After the First World War, theoretical work focused mainly on exchange rates between European national currencies that were no longer convertible into gold and on the inflation crisis besetting Germany. The year 1917 had seen the birth of 'purchasing power parity' theory, which compares national currencies' ability to buy a good trading freely internationally. This notion remains in regular use today, much the same way as Milton Friedman's post-1945 monetarism transplanted the old quantity theory of money on to the neoclassical theory of utility value.

What we are suggesting here is that Marx's ideas do allow for criticism of certain modern conceptions of monetary phenomena, while providing us with clues about which paths we should follow in further research on money. The present chapter does not purport to discuss different value theories; rather, it tries to show that neoclassical formulations of real magnitudes are unable to introduce monetary prices, and that some post-Keynesian interpretations are similar in this respect. None of them can be applied to the social reality of money.

2.1 Discussion of three modern analyses of variations in monetary prices

A modern quantity theory of money

The old quantity theory of money was revised by Irving Fisher in *The Purchasing Power of Money* (1911). According to Fisher, the nominal price level (P) depends on only three causes: the quantity of money in circulation (M), the velocity of circulation (V), and the volume of real trade (Q). These factors provide the famous equation of exchange, $MV = PQ$. Fisher argued that 'the value of money is generated like the value of anything else by the general conditions of demand and supply', and that the stability of prices depends on M when V and Q are given. Money has 'a fundamental peculiarity: it has no power to satisfy human wants except a power to purchase things which do have such power'.

After the Second World War Milton Friedman developed a modern quantity theory of money (called 'Monetarism' in 1968 by Karl Brunner). His notion of money was the same as Fisher's: the value of money for individuals comes from its ability to purchase real goods. However, a demand for

money was introduced in the equation of exchange: $MV = Py'$, where y' is the 'global net income at constant prices', to which individuals' demand for money holdings is proportional.

The stock of money (M) includes currency held by the public and private demand deposits in commercial banks. It is an aggregate stock of money supplied by the monetary authorities, the Federal Reserve System. The aggregate of individuals cannot issue money in proportion to their demand for money. This divorce between the supply of money determined by monetary policy and the quantity demanded by individuals is the main cause of disequilibrium between the supply of money and the demand for money, and of an unstable price level.

On the demand side, changes in global output and changes in the amount of money that the public desires to hold relative to its income can be measured in the long run, because they are relatively stable over a long period. This relative stability should provide a rule for the supply of money by the Federal Bank System. The system cannot control the price level, but it can control the money supply. It should adopt a fixed rule of money increase. This proposition means that the choices of individuals are rational, and that the aggregate monetary transactions of the private sector would be self-stabilizing.

So the main risk of price level instability comes from the discretionary policy of the central bank. It was argued that monetarism integrated the theory of money with the neoclassical 'general theory of choice' and provided a 'synthesis' with some Keynesian elements. However, the neoliberal conception included in monetarism was an obstacle to such a synthesis, and the affirmation by Friedman that unemployment is a matter of choice for each individual (i.e., 'voluntary') was disputed by K. J. Arrow (1981). These questions are fundamental. They concern the meaning of monetarist policies applied in 1979–81 by Thatcher and Reagan, and the quantity rules of the management of the euro by the new European Central Bank.

The most important point to be examined here is the ambiguity of the status of money in monetarism. As a centralized institution, money is not only an exogenous quantity of tokens; it is also the general unit of account for transactions within a country, which is different from a 'numeraire'. However, this is not specified in the monetarist conception of money. There is no 'social convention' within a given national territory. Modern fiat money is simply a quantity of purchasing power units, the price of which is $1/P$. It has no intrinsic use value. Money is 'neutral'.

The demand for money holding introduces money as an asset with special characteristics: that is, with a return equal to zero. But the aggregate demand implies that all individuals take the unit of account and the general use of money for granted. It means that the 'acceptability' of money by all individuals is required. How is this possible? The use of money, instead of a rational individual choice, is imitative behaviour; monetary transactions are

accepted by individuals because other people accept them. There is neither a rational individual choice, nor a social constraint in this conception.

So on both sides of the equation of exchange, the 'acceptability' of money has no foundation. It is taken for granted. When the specific function of money as a common unit of account disappears, the meaning of a monetary standard of prices also disappears, and the relationship between multiple currencies cannot be understood. We will examine this point below when we come back to the notion of price standards and units of account.

The Post Keynesian concept of the NAIRU

The NAIRU (non-accelerating inflation rate of unemployment) model tries to establish a statistical relationship between variations in wage-earner unemployment rates and the general level of prices. Falling joblessness will supposedly lead to a rise in consumer spending, and hence to higher prices. This model, born in USA in the 1970s (Baker 2001), is still being used today by international institutions such as the OECD.

This model assumes that there is an unemployment rate at which prices are stable and that, if unemployment falls below this level, inflation will ensue. Yet statistical observation of the period 1995–2001 showed that the quasi-full employment in the USA was not accompanied by any significant jumps in wages and in commodities prices. Aside from this lack of correlation, the NAIRU model also conveys an erroneous conception of the way monetary price variations occur.

Some economists have argued that the model failed because it did not account for the inverse relation between increasing prices of goods and the subsequent adaptation of wages. But at a deeper level, NAIRU would appear to be a statistics-dominated instrument of wage supervision, to be used by those who fear that low unemployment might undermine wage moderation. However the numerous economic and political neoliberal measures since the early 1980s have established a balance of power that is clearly unfavourable to workers and favourable to capitalists. These measures enforced wage discipline. It is a reminder that wage variations are basically a variable dependant on the conditions of capital accumulation. Higher wages may temporarily lessen capitalist profits, but this is a matter of distribution, and it does not concern the general level of prices.

The NAIRU model was developed by Post Keynesian economists. According to Paul Davidson, 'an incomes policy could limit wage and price movements'. This Post Keynesian author identifies 'production costs' with wages. 'Wage restraint over time is a necessary adjunct to developed capitalist economies' (1981: 167). How could such an incomes policy stop inflation? Its link with Keynes's 'effective demand' is not clear. There is no analysis of the inflation process. 'Money is assumed to accommodate', and 'the money wage is the linchpin of the price level'. These assumptions are substitutes for a theory of money.

The reference of exchange rates of national currencies to purchasing power parity

At an international level and in the absence of a gold standard, the exchange rates of national currencies ostensibly depend on the market and on private financial traders. The main currencies are traded today against one another at floating exchange rates, without any official rate being set as a benchmark. Cassel's 1917 theory of purchasing power parity attempted to provide a real market foundation for all exchange rates regimes between currencies. It is still being used today to ascertain whether national currencies are 'over-valued' or 'undervalued' against one another. The aim here is to turn the floating exchange rate system into a benchmark for different regimes and monetary policies.

The principle of purchasing power parity is well known. A commodity (or a basket of commodities), having everywhere the same qualities and use value, and produced in several countries at once and circulating freely amongst them, has varying national monetary prices. These prices are supposed to reflect variations in national currencies' purchasing power in terms of identical commodities. This refers to 'the law of one price' on a competitive international market. P and P^* are the domestic prices of the universal commodity within two countries, and the rate of exchange between their currencies is quoted as the number of units of domestic currency per unit of foreign money. The equilibrium rate of exchange should be: $e = P/P^*$. Measured in the same currency used as an accounting unit, the commodity should have the same equilibrium price when $P/eP^* = 1$. This would provide a solidly embedded yardstick for currency exchange rates.

Why are different versions of this purchasing power parity story still used today? It implies the dream of a perfect competitive world market where some commodities are submitted to 'the law of one price', but the critique cannot be limited to real market imperfections. It should consider that in the purchasing power parity theory, money functions are reduced to only one, the unit of account, which can be used only within a country, or as a universal standard. This means that national currencies could be homogeneous, as if they were domestic units of account of the same international tabular standard.

Keynes (1930) used tabular standards to measure the purchasing power of money for commodities and 'labour units'. He rejected 'the alleged intrinsic value of money', but he criticized 'the law of one price' included in purchasing power parity conception. According to him, any international price standard should be different from notional currency standards. These depend on domestic consumption expenditures and labour wages which have national determinations. Other differences between countries generate 'international complications' when there is an international money standard. 'The immediate interests of countries may be divergent. The balance of power between them may be affected by political initiatives, for instance

when a powerful country can influence the international situation to suit herself.' This was the case for Great Britain during the gold standard regime from 1880 to 1913. After the First World War, 'owing to her immense holdings of gold, the U.S. was able to obtain the combined advantage of a local and an international standard' (1930, Volume II: 337) Keynes proposed that any international standard, gold or world commodities standard, should be managed by a 'Supranational Authority'. A purchasing power parity self-regulating mechanism of international equilibrium makes no sense.

Marx had distinguished 'national spheres of circulation', where 'the establishment of a standard of prices is the business of the state', from the international market where gold circulates as 'money of the world', which functions as 'a means of payment in the settling of international balances' of nations. In Volume III of *Capital*, Marx tried to show how capitalist crises are extended from England to all countries through their balance of payments problems. The specific position of London as 'the centre of the world money-market' was emphasized by Engels (Marx 1894: 370), but this does not show how the central position of Great Britain was supported by the British Empire. All nations are under the pressure of an international 'law of value', but they have unequal positions.

2.2 The significance of the dollar standard

Since the Second World War, the dollar has been the universal unit of account, and it is used, for example, to quantify GDP differences and relative poverty levels in different countries. In financial transactions, the dollar is the main currency vehicle for inter-bank foreign exchange trade. In line with traditional functions of money, the dollar is the main reserve currency for non-American central banks, and a safe haven for private owners of foreign currencies.

This does not mean that the US dollar is a world currency. Its benchmark status requires a common assent from countries that compete with the USA. Since the end of the Second World War, this assent has had different aspects. The Bretton Woods agreements in 1944 had established a 'gold exchange standard' regime based on fixed but adjustable exchange rates. The main capitalist states' currencies could no longer be converted into gold-money when they circulated domestically, although they could be converted by central banks into gold bars (at a fixed price) when foreign trade operations were involved. The late 1960s dollar crisis, one aspect of which was the outflow of one-half of all US gold reserves, killed this system in 1971. In 1973, a regime predicated on floating exchange rates between the major currencies was established. This was followed by several 'currency wars', mainly between the dollar, the Deutsche-mark and the yen. Exchange rates fluctuated considerably. For example, in 1979 a dollar could be purchased with 5 French francs, as opposed to 10 French francs in 1982.

These events indicate that the US dollar is not a universal form of money. Whatever the superiority of the American economy may be, the dollar standard needs international support that has different political forms. For instance, President Reagan asked the leaders of the major capitalist countries to intervene, in 1985 and 1987, first to avoid an excess rise in the dollar market exchange rate, and later to avoid an excessive fall. Such *ad hoc* monetary cooperation did not concretize institutionally. However, the main central banks intervene occasionally. The floating rates of exchange are not self-regulating, but no regime of exchange rates can be totally self-regulating. We have suggested above that the eminent role of sterling as a standard during the gold standard system was supported by the British imperial policy. The access of national currencies to gold as 'universal money' was different and unequal.

After the Second World War, the 'gold-dollar-standard' worked until 1971. Then the new situation of the USA which was no longer an international creditor but had become a debtor, generated gold drains, while within this leading country inflation surged. In 1971 President Nixon disconnected gold from the dollar. In 1973, the main capitalist countries, agreed to a new regime of exchange rates, a floating one, which was supposed to be a self-regulating market process. However, '[t]he absence of a world nominal anchor to take the place of gold, the pound or the dollar, generates a conflict inherent in the dual role of the dollar as America's currency and the world currency' (Frankel 1992: 701). In the future, we may see how direct imperial measures try to solve this contradiction. The neoliberal order and the stability of the currency market are not self-regulating. Does this mean that there is some international law of value which becomes more active when there are increasing economic conflicts between national interests?

We have seen that the international standard has functions of means of payment, the reserves of non-American central banks, and a safe haven for private owners of foreign currencies. However there is a recurrent debate about the constant American current account deficit and the growing external debt, which must be financed by foreign funds. The debate over the conditions attached to the currency standard role opened up again in 2003 as a result of the dollar's relative weakness against the euro, a trend that began in mid- to late 2002 and continued in 2003, but the constant deficit in the country's external current accounts was manifested in many different ways. One was that constant increase in the USA's external debt is inevitable since the USA acts as locomotive for world growth. Most experts feared that the dollar standard regime could be damaged. This would mean, however, that if the dollar is to remain the international currency standard, its deficits will have to be financed by non-American countries or private investors. These experts think that the floating rates of exchange are the best guarantee for currencies purchasing power parity.

The recent discussion has focused on the Chinese currency, the yuan, which is, like some other Asian currencies, pegged to the US dollar, and in

terms of purchasing power parity this currency is undervalued. The yuan should be allowed to float to correct its undervalued status, a weapon that gives Chinese exports to the USA an unfair advantage, and increases the American trade deficit. The Chinese government is under pressure to let the yuan float. However, the Chinese monetary authorities invest their reserves in the US Treasury bonds, thus financing the American deficit, and consolidating the dollar standard. The floating exchange rate regime is a cause for concern, given that one day Chinese private investors may be free to do something else with their dollars besides purchasing US Treasury bonds.

There is no universal money standard forced upon all nations by a world state. The gold standard regime did not survive imperial competition between the main capitalist countries. We do not know now long the dollar standard will maintain its current role. The contemporary capitalist credit system is not free from the 'monetary constraint' which is inherent in commodities trade. The attempt to force a system of world capital markets and credit relations on all nations paved the way to the dollar standard. But the USA is not a world empire. Other capitalist nations are its rivals, even if they accept the dollar's hegemony. Integration of the world capitalist economy is a contradictory process; it reflects 'a law of value', but it is submitted to national differences between production territories. The complex relationship between capitalism and imperialism should be discussed once more.

These suggestions should be fleshed out by an analysis of the role that a 'law of value' plays in determining the conditions limiting the operations of international capitalism today. The affirmations made have been limited in scope, the goal having been to show that currently dominant economic reasoning lacks a satisfactory theory of money (or the functions thereof). By using Marx's theory (with or without commodity money), we can highlight contradictions in a capitalist credit regime that manifests, in a variety of new forms, a persistent money question that is concretized in the role played by a currency standard that is much more than a mere unit of accounting. This question includes an analysis of state intervention, and of the balance of power between capitalist states. There is no self-regulating market equilibrium of currencies. Money is never 'neutral'. How does this translate a 'law of value' *à la* Marx? This is a question for all of us.

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14

Towards a Marxian Theory of World Money

Tony Smith

In *Financial Markets, Money and the Real World* Paul Davidson, a leading Post Keynesian economist, adds his voice to calls for reforms of the 'international financial architecture'. Unlike other reformers, his proposals centre on a new form of world money. In this chapter I shall present a critical assessment of his position from a Marxian standpoint.

At present the dollar, the euro and yen are the main forms of money serving as units of account, means of circulation, means of payment, and reserve funds in the world market, with the dollar still dominant. Relationships among these currencies, and between them and other currencies, are a crucial dimension of the contemporary global order.

Neoliberal theorists hold that financial markets are rationally efficient. While individual traders may err, over time the collective wisdom of the market processes relevant information far more accurately and quickly than government officials. Most countries (or currency unions) should therefore leave the determination of the relative value of their currency to the market (Friedman 1953). The longer the government maintains an inappropriate exchange rate, the sharper and more harmful the eventual revaluation, as the 1997 East Asian crisis demonstrated (DeRosa 2001).

Post Keynesians reject the rational efficiency hypothesis (Davidson 2002: ch. 3). The future is radically uncertain; it is impossible to calculate even the probability that a particular path of development will be followed in capital asset markets. Given this uncertainty, successful investment is a matter of anticipating shifts in the 'bearish' and 'bullish' sentiments of fellow traders. Also, the motive for investing in financial assets is generally not to hold the fixed assets they represent for the long term, but to profit from selling the former in the short-to-medium term. Unregulated financial markets are thus prone to instability. As investment sentiment shifts in a 'bullish' direction, investors who anticipated this shift win high profits, attracting further 'bullish' investments. A self-reinforcing boom may then occur. Even those who realize the boom cannot be sustained indefinitely join the bandwagon, hoping that a 'bigger fool' will be found to whom they can sell. When investor

sentiment reverses at some contingent point for some contingent reason, a stampede out of the asset commences.

Freely floating or loosely pegged exchange rates thus imply a threat of greater volatility in currency markets. Potential foreign investors in long-term projects now face greater currency risks regarding the profits (measured in their home currency) that they can appropriate from foreign direct investment (FDI), while potential home investors face greater currency risks regarding the profits (measured in their home currency) that they can appropriate through exports. The rate of long-term investment tends to decrease in response. Lower rates of long-term productive investments lead to lower rates of growth, higher unemployment, and a higher level of unmet wants and needs. Government officials, realizing the harm a speculative run on their currency can inflict, attempt to reduce exchange rate volatility by accommodating to the market sentiment that government deficits and higher wages set off inflation. Policies designed to restrict government spending and hold down wages reinforce the depressionary bias in the operation of world money.

The institutionalization of neoliberal policies in recent decades is in fact associated with lower rates of growth, lower wages, and higher unemployment than the 'golden age' of the quarter century after the Second World War.¹ Post Keynesian theorists believe that can be explained primarily by the depressionary biases introduced into the world market by the present system of world money. Financial flows, which should foster industrial development, now hamper it, at the cost of needless suffering.

The eight proposals for the reform of the International Financial Architecture formulated by Davidson are intended to reverse this perverse state of affairs. The first four can be taken together:

First, the unit of account and ultimate reserve asset for international liquidity is the International Monetary Clearing Unit (IMCU). All IMCUs can be held *only* by the central banks of nations that abide by the rules of the clearing union system ... Second, each nation's central bank or, in the case of a common currency (for example, the euro) a currency union's central bank, is committed to guarantee one-way convertibility from IMCU deposits at the clearing union to domestic money ... Third ... Contracts to be settled in terms of foreign currency will require some publicly announced

¹ In Western Europe, for example, per capita GDP growth declined from a 4.08 annual average compound growth rate in 1950–73 to 1.76 in the period 1973–98. This measure of growth fell in most other regions: from 2.44 to 1.94 in the USA, Australia, and other 'Western Offshoots', from 8.05 to 2.34 in Japan, from 2.52 to 0.99 in Latin America, and from 2.07 to 0.01 in Africa. In the world economy as a whole there was a decline from 2.93 to 1.33, with Asia (excluding Japan) being the only region where growth rates increased (Maddison 2001).

commitment from the central bank (through private sector bankers) of the availability of foreign funds to meet such private contractual obligations. Fourth, the exchange rate between the domestic currency and the IMCU is set initially by each nation or currency union's central bank.

(Davidson 2002: 232–3)

With only one form of world money, the International Monetary Clearing Unit (IMCU), the horrific economic and social disruptions caused by abrupt and massive currency revaluations would be eliminated (Brenner 1998, 2002). With one-way convertibility, each nation can control outflows of capital funds. One cause of the East Asian crisis was local bank borrowing (denominated in dollars) from global capital markets, which was then used for speculative investments in capital assets such as real estate. The collapse of the resulting speculative bubbles set off a stampede of outflows. The local currency was then sharply devalued, exacerbating the difficulty of repaying foreign creditors in dollars. Post Keynesians insist that governments must have the tools to prevent this situation from arising.

The great success stories of economic development in the history of capitalism have been based on a 'developmental state' model, in which state planning agencies and banks allocate credit to local industrial enterprises. In contrast, in regions of the South where extensive borrowings from global capital markets have occurred, money inflows have generally not generated trade surpluses sufficient to repay both principal and interest on foreign loans. Indebted countries have instead often required further loans to meet interest payments, imposing further debt service charges beyond what they could afford. As deficit countries then attempt to reduce their payments imbalance by reducing imports, another strong depressionary force is added to the global economy. The neoliberal international financial architecture of free flows of money capital thus dismantles the single most effective means of industrial development discovered in the history of capitalism, replacing it with the 'debt trap'. Davidson's first four proposals are intended to create a form of world money allowing space for developmental state policies. Domestic savings and endogenously created credit money can now be mobilized for domestic development.² Davidson's next proposal furthers this agenda as well:

Fifth, an overdraft system should be built into the clearing union rules. Overdrafts should make available short-term unused creditor balances at

² However compelling the theory of endogenous money might be in general, problems arise when it is applied to so-called 'less developed countries' (LDCs), where wealth owners often prefer holding the debts of developed countries: '[E]ven at high interest rates, agents in the LDC will not be able to issue debt to finance spending because the liabilities of the DC are preferable. In this case, the money supply of the LDC cannot be endogenously increased because high "liquidity preference" (i.e., preference for DC debts) prevents creation of LDC money' (Wray 1990: 63).

the clearing house to finance the productive international transactions of others who need short-term credit.

(Davidson 2002: 233–4).

Full employment policies cannot be pursued throughout the global economy if some nations continually hoard a portion of their foreign export earnings and net unilateral transfers. Such behaviour logically implies that other nations must remain in deficit. In the present international financial architecture the burden of this imbalance falls almost entirely on debtors, who must divert more and more resources to foreign creditors. From a Post Keynesian standpoint this situation is intolerable:

Sixth, a trigger mechanism [is required] to encourage any creditor nation to spend what is deemed (in advance) by agreement of the international community to be 'excessive' credit balances accumulated by running current account surpluses. These excessive credits can be spent in three ways: (a) on the products of any other member of the clearing union, (b) on new direct foreign investment projects, and/or (c) to provide unilateral transfers (foreign aid) to deficit members.

(Davidson 2002: 234)

Without excess oversavings in surplus nations, nations suffering payments deficits have greater opportunities to reverse these deficits by selling abroad.

Davidson's seventh recommendation is that exchange rates between local currencies and the IMCU be fixed, changing only when a change in efficiency wages occurs. This ensures that firms will not suffer a competitive disadvantage due to changes in nominal exchange rates apart from changes in the real costs of production. This removes the temptation for a nation to pursue growth through a real exchange rate devaluation that does not reflect its relative efficiency. The rule also assures each central bank that the long-term purchasing power of the IMCU in terms of foreign-produced goods remains stable. If inflation breaks out in a particular national economy, the exchange rate between its currency and the IMCU must be devalued. If productivity advances lead to declining production costs measured in local currency, then the country could choose to revalue the exchange rate so the IMCU buys fewer units of domestic currency without any loss of purchasing power. In this case all the benefits from the productivity advance are captured in the national economy. Another option would be that the nominal exchange rate could be kept constant, lowering the country's export prices and thus expanding its export markets. The benefits of the productivity advance would then be shared with nations importing its commodities at the lower prices.

International payments deficits may still persist even if no nation can accumulate excessive surpluses indefinitely. Davidson's final proposal addresses this problem. If a poor country falls into deficit, rich countries

must transfer some of their excess credit balances to it, enabling it to develop its productive capacity and increase its exports to the point where it can maintain its standard of living. If the deficit nation is relatively wealthy, it must devalue its exchange rate by gradual increments until its lower export prices and higher import prices eliminate the export–import imbalance. If these measures attain a positive balance of trade in goods and services without eradicating the payment deficit, then the international debt service load is too high. Negotiations must then commence to lengthen the payments period, reduce interest charges, or forgive debts (Davidson 2002: 236–7).

The chances of these proposals being adopted are roughly comparable to the odds of my becoming Pope. But they are based on an accurate assessment of the weaknesses of neoliberal theory, and they powerfully express the deep utopian drive to imagine a form of capitalism capable of fulfilling its unmet promises. The limits of these imaginings must be carefully specified, for these limits are the limits of capital (Smith 2003).

Perhaps the most basic limit regards Davidson's methodological framework. He begins with the assumption that the capitalist world market ought to be designed to allow the greatest feasible satisfaction of human wants and needs. He then attempts to deduce what shape world money must take in order to achieve that goal. From a Marxian standpoint, if the goal is to comprehend a given set of social forms, we should not assume that these forms are subordinate to a normative principle. The principle in question may turn out to be quite extrinsic to them. A materialist methodological framework would begin instead with an examination of the basic social relations defining capitalism, tracing their implications to the bitter end. The proper question is not, 'What must world money be, if human wants and needs are to be satisfied to the greatest extent feasible?' The question is instead, 'What must world money be, given the social relations defining capitalism?'

From a Marxian standpoint the social relations defining capitalism are value relations, capital/wage labour relations, inter-capital relations, inter-state relations, and the relations constituting the world market. Each is relevant to our understanding of world money.

1 Value relations

Capitalism is a system of generalized commodity production in which privately undertaken labour may or may not prove to be socially necessary. Within this system any two successfully exchanged commodities share a 'third thing' conceptually distinct from their relative exchange ratios and their particular use values: both were produced by labour that has proved socially necessary. We may term labour that fits this description 'abstract labour', for it produces an abstract dimension of commodities, the value dimension, shared by all commodities contributing to the material reproduction of the capitalist system. The value dimension is a social

dimension, arising from the historically specific way labour is organized in capitalism.³

Generalized commodity exchange requires a socially objective measure of the value of commodities. Insofar as value is abstract and homogeneous, any system of measurement must employ homogeneous and abstract units. Measurements in terms of units of time have this feature, and there is a sense in which time is indeed the immanent measure of abstract labour. But the only form of labour that can be measured directly with a stopwatch is the concrete and heterogeneous labour that produces concrete and heterogeneous use values, and that may or may not have been socially wasted. The abstract labour that is the source of value thus cannot be measured directly. It must be represented in an external form, the money form. Physical entities of a special sort – shells, precious metals, slips of paper, electronic bits – must be organized in numerical relations representing value relations.⁴ They can only do this insofar as they have a special social property distinct from whatever concrete qualities they possess as physical entities, the abstract and homogeneous quality of universal exchangeability.

From the neoliberal standpoint there is no overall purpose to social life. Individuals seek to further their own goals, either alone or in groups, with money serving merely as a generalized means for their pursuit of particular ends (Hayek 1976). For Post Keynesians, in contrast, uncertainty about the future and inadequate regulation of financial activities can result in the accumulation of money becoming an end in itself, with perverse social consequences. In their view this outcome can only be avoided if appropriate government regulations are in place.

From a Marxian standpoint neither position adequately comprehends the ontological inversion introduced by the money form. To recognize that money is the only socially objective measure of value is to recognize that in capitalism there *is* an overall goal of social life which is conceptually and ontologically distinct – if inseparable – from the intentions of particular social agents and groups. The capitalist mode of production is directed towards accumulating a sum of money at the conclusion of a given period exceeding the sum initially invested ($M-C-M'$). The 'self-valorization of value' is thus the immanent end of capitalist society (Marx 1867: 255–6). The satisfaction of human wants and needs occurs only insofar as it is compatible with the valorization imperative, 'Money must beget money!'

³ The notion of abstract labour defined here is not reducible to the physiological features common to various concrete forms of labouring. The latter notion is transhistorical, applicable to any and all societies (Murray 2000).

⁴ For an argument that non-commodity monies take on most of the functions of money in Marx's framework, see Campbell (2002).

Value, abstract labour, and money are all ultimately determined on the level of the world market:

Abstract wealth, value, money, hence *abstract labour*, develop in the measure that concrete labour becomes a totality of different modes of labour embracing the world market. Capitalist production rests on the *value* or the transformation of the labour embodied in the product into social labour. But this is only [possible] on the basis of foreign trade and of the world market. This is at once the pre-condition and the result of capitalist production.

(Marx 1971: 253)

The generalized insecurity resulting from the danger that concrete labour may be socially wasted occurs on the level of the world market; so too the need for a socially objective validation of privately undertaken labour. *The accumulation of world money, the sole socially objective measure of abstract labour on the level of the world market, is thus the immanent end of the capitalist world market.*

IMCUs are units of account, reserve assets, and means of purchase in international transactions; but they are not ends in themselves. They are supposed to circulate in a smooth and balanced fashion across the world economy, rather than being the objects of a mad drive to accumulate in a competitive war of all against all. Post Keynesians thus call for a form of world money that is in fundamental tension with the most basic determination of world money in the global capitalist order, its perverse ontological status as an end in itself over and against human ends.

2 Capital/wage labour relations

Units of production in which labour is privately undertaken are units of capital within which labour power is hired for wages. The accumulation of money capital is not merely the social validation of privately undertaken labour; it is simultaneously the reproduction of the capital/wage labour relation. Insofar as accumulation ultimately occurs on the level of the world market, world money cannot be adequately comprehended in abstraction from this class dynamic.

Post Keynesians want a form of world money enabling states to pursue full employment policies in their national economy without being punished by financial markets. They fear, however, that full employment may set off a wage-price inflationary spiral. And so they call for an incomes policy, assuming that representatives of capital and wage labour should be able to agree to a fair distribution of income with the helpful guidance of the state (Davidson 2002: 254).

This analysis fails to recognize the inflationary tendencies inherent in monetary regimes based on credit money (de Brunhoff 1978: 128; ch. 2). The extension of credit to the industrial sector can be seen as a 'private prevalidation' of the labour undertaken in that sector. In Marxian terms, loans to industrial firms are made under the assumption that surplus value will eventually be produced and realized in the market, enabling these firms to repay the loans out of profits. If this does not occur on a sufficiently broad scale, however, the central bank may intervene, providing liquidity to banks and other financial institutions. If the latter use this liquidity to make further loans to industrial firms, these firms can roll over previous debt by taking on more debt. Crises can be temporally displaced in this manner, at least in certain regions and for certain periods. The sharp and abrupt slowdowns that occurred when credit money was subordinate to commodity money are then avoided. This 'pseudo-social validation' of private labour, however, comes at the cost of inflationary tendencies having little to do with 'excessive' wage demands.

The assumption that there is a 'fair' distribution of income between capital and labour waiting to be discovered also needs to be called into question. From the standpoint of Marx's theory of exploitation this claim is nonsense. Capital is nothing but a product of collective social labour that has taken an alien form over and against working men and women (Marx 1867: 755–6). No amount it appropriates could ever be 'fair', even in principle.

Talk of fairness is dubious in this context even apart from the theory of exploitation. Investors and top managers make the 'contributions' and bear the 'risks' that capitalist ideology, law, and practice proclaim merit the greatest reward. Further, the generalized insecurity of capitalism means that no amount of capital accumulation is ever sufficient; more is always better. What is 'fair' from the standpoint of capital will thus tend to be far different from what is 'fair' from the standpoint of wage labourers, and this is but one area of irresolvable conflict. Issues regarding the length and intensity of the work day, the appropriate level of skill and creative work for each job, and so on, necessarily tend to generate systematic antagonisms as well.

Full employment tends to shift the balance of power in labour's favor, profoundly threatening the self-valorization of value. Those who control money capital will attempt to reverse this state of affairs through investments in labour-saving (and de-skilling) technologies, capital flight to regions where the workforce is relatively docile/intimidated, and capital strikes (including shifts of investment from production to financial speculation). Maintaining full employment over time in these circumstances demands far more than an incomes policy: it demands expropriation of the holders of money capital (de Brunhoff 1978: ch. 1).

Capitalist world money inevitably reflects the social antagonisms of the capital/wage labour relation. It is incoherent for Post Keynesians to accept the social relations defining capitalism, while simultaneously advocating a

new form of world money designed to enable full employment in the capitalist world market. The former rules out the latter.

3 Inter-capital relations

The social relations of capital include various inter-capital relations. For present purposes it is sufficient to note the distinction between financial capital and industrial capital. It should go without saying that Post Keynesian proposals to subject cross-border flows of money capital to effective social regulation would be fiercely resisted by financial capital. Matters are more complex regarding industrial capital.

It is possible to assert that there was a 'Keynesian moment' after the Second World War when the interests of industrial capital could be furthered through 'financial repression'. In this period the concentration and centralization of industrial capital had reached the point where production was organized primarily on the level of the national economy, however important imports of raw materials and exports of finished products, and the systematic cycle of accumulation was in its first phase of material expansion (Arrighi 1994). This moment has now passed; the concentration and centralization of industrial capital has proceeded apace, and material expansion has given way to a persistent global overaccumulation crisis.

At the present level of concentration and centralization, it is in the interests of leading industrial firms to have easy access to world money to fund cross-border production chains, joint ventures, and mergers and acquisitions (Moody 1997). They also need access to world money to respond to overcapacity difficulties in their home market by invading markets where they have a competitive edge. Last but not least, it is in their interest to have easy access to world money in order to respond to overcapacity difficulties by shifting more of the surplus value they have accumulated (and more of the credit money they have borrowed) into the more lucrative financial sector.

For a set of non-revolutionary yet serious reforms to be feasible in a capitalist order, a ruling bloc must be formed in which factions of capital and non-capitalist classes unite in pursuit of this agenda under the leadership of a dominant faction of capital. For the Post Keynesian form of world money to be remotely feasible, a coalition of industrial capital and non-capitalist classes would have to be formed to challenge the grouping led by financial capital. Such a bloc will not emerge in the present historical conjuncture. The bloc that has formed, and which will surely stay in place for the foreseeable future, is a coalition of financial, merchant and industrial capitals dedicated to maintaining and extending a form of world money allowing cross-border commodity flows, foreign direct investments, overseas portfolio investments and so on to occur with minimum hindrance.

4 Inter-state relations

The increasing importance of cross-border joint ventures, mergers and acquisitions, portfolio flows and so on complicate the capital/state relationship immensely. At the present moment new transnational capitalist class identities are undoubtedly being forged (Robinson and Harris 2000). Nonetheless, it remains the case that the interests of the dominant sections of the hegemonic state and the interests of the dominant factions of capital in the world system remain intertwined (Wood 2003). Insofar as it is against the interests of the dominant factions of capital to introduce a form of world money restricting cross-border money flows, this directly challenges the interests of the dominant state as well.

Further, the currency of the hegemonic state necessarily tends to play a privileged role in the world market as the main form of world money (Gowan 1999). As a direct result the hegemonic state does not face the limits on the ability to create credit money and borrow from global capital markets imposed on other nations. For extended periods of time, at least, it can fund massive trade deficits without significant declines in the value of its currency. As long as credit flows to the hegemonic state continue (i.e., as long as loans are rolled over by new loans) trade deficits can balloon and deep recessions can be avoided as more and more of the world's output is consumed in the domestic markets of the hegemonic state. The only costs of maintaining this state of affairs are the fees involved in the new loans (Guttmann 1994: 114–15). When levels of debt to foreign investors are finally deemed excessive, a devaluation of the currency can then erode the value of foreigners' claims. These privileges of 'seigniorage' (in the broadest sense of the term) partially rest on the need of foreign economic agents to obtain world money to undertake international payments and investments. Foreign central banks also need to hold reserve funds of the hegemonic currency to reassure global capital markets, and central banks must often sell their domestic currencies and buy the hegemonic currency in order to prevent exports from being harmed by currency appreciations.

If IMCUs were to become the sole form of world money, there would be no space for the currency of the hegemonic state to play a special role in the world market. There are no good reasons to think that hegemonic states are about to disappear; they have played a central role in capitalist development from its inception, providing the indispensable public goods required for a region to serve as the centre for global accumulation for an entire systematic cycle of accumulation (Arrighi 1994). To leave capitalist production relations in place is to leave in place this hierarchical inter-state system. Is it really plausible that a hegemonic capitalist state (or any states imagining themselves playing this role in the future) will voluntarily renounce the immense benefits of seigniorage? The question answers itself.

5 The world market and uneven development

Post Keynesians share with Marxists an outrage regarding the indifference and obfuscation with which mainstream economics responds to global inequalities. What is the root cause of uneven development in the world market? The failure of surplus countries to accept any responsibility for monetary imbalances in the global economy, and their ability to place the greatest burdens of adjustment on weaker deficit countries, are absolutely crucial in Davidson's account. But in his view monetary imbalances are symptoms of a deeper problem, which he formulates in terms of an equation stating when growth in a nation's demand for imports exactly equals growth in demand for its exports ('Thirlwall's Law'):

$$(Y_a/Y_{rw}) = (E_{rw}/E_a)$$

In words:

[I]f nation A's international payments position is not to deteriorate, then the ratio of the growth of income in nation A to the income growth rate in the rest of the world must be equal to the ratio of rest of the world's income elasticity of demand for A's exports to A's income elasticity of demand for imports.

(Davidson 2002: 160; see Thirlwall 1979)

The systematic tendency towards uneven development can be explicated in terms of this equation:

[I]f less-developed nations (LDCs) of the world have a comparative advantage in the exports of raw materials and other basic commodities that typically have a low income elasticity of demand, while the LDCs have a high income elasticity of demand (E_{ldc}) for the manufactured products of the developed world, then, for these LDCs:

$$(E_{rw}/E_{ldc}) < 1$$

Consequently, if LDCs follow the conventional advice of classical economists and continue to develop only their comparative advantage industries and simultaneously try to maintain a position where the market value of exports just equals the market value of imports, then the LDCs are condemned to relative poverty, and the global inequality of income will become larger over time.

(Davidson 2002: 160)

Davidson advocates a capitalist world market in which flows of IMCUs enable states to pursue industrial development policies vigorously, without

being punished by global capital markets. Successful industrial development presumably changes the product mix in poorer regions, thereby eradicating the tendency to uneven development.

In this context Davidson's seventh proposal warrants closer attention. It stated that exchange rates between the IMCU and local currencies are to be fixed, changing only when successful product or process innovations improve productivity. The country in which the improvement occurs can then choose to revalue its domestic currency so that the IMCU buys fewer units of it without any loss of purchasing power; or else the nominal exchange rate can be kept constant, with the advance in productivity lowering the unit prices of the country's exports. *Either option generates its own systematic tendency for uneven development in the world market.*

Suppose the former option is taken, and the IMCU buys fewer units of the technically advanced nation's currency. The productivity advance enables a more rapid rate of economic growth and a higher level of material output. A virtuous circle can then be established in this region; high levels of growth and output can fund a high level of future R&D funding, providing important preconditions for future advances in productivity. In contrast, lower levels of growth and output in other regions limit their ability to engage in advanced R&D, limiting opportunities for productivity advances in the succeeding period.

If the second option is selected, and nominal exchange rates are kept constant in the region enjoying the productivity gain, precisely the same virtuous and vicious circles necessarily tend to emerge. The nation enjoying the advance can lower the unit prices of its exports, gaining share in export markets while increasing profits. These profits can then fund the high levels of R&D that are preconditions for future productivity advances and high levels of growth. Other regions, unable to match that level of R&D funding, confront significantly fewer future opportunities. Global inequality tends to increase.

The drive to appropriate surplus profits through technological innovation is an inherent feature of inter-capital competition (Mandel 1975: ch. 3; Smith 2002). This drive generates a systematic tendency towards uneven development in the world market. Davidson calls for an international financial architecture that retains inter-capital competition while removing the tendency to uneven development. But this is incoherent; the former excludes the latter.

6 Conclusion

Any adequate account of world money must be rooted in the essential determinations of the capitalist world market. Post Keynesian theorists such as Davidson advocate a form of world money that is not itself an object of accumulation, allows full employment and industrial development, and fosters

geopolitical balance among states and economic balance among national economies. But the system of capitalist property and production relations systematically requires a form of world money whose accumulation is an end in itself, and as long as these relations persist, flows of world money must reproduce the structural coercion lying at the heart of the capital/wage labour relation. At the present stage of concentration and centralization, industrial capital requires a form of world money that enables large-scale cross-border joint ventures, mergers and acquisitions, production chains, portfolio flows, loans, and so on. Ongoing overaccumulation difficulties in the world market also require a form of world money that flows easily into cross-border circuits of financial capital. The tendency for the interests of capital in hegemonic regions to be intertwined with the interests of a hegemonic state in the inter-state system, and the compelling benefits of seigniorage to this hegemonic power, imply that capitalist world money is a geopolitical weapon, not a neutral instrument of trade. Moreover, the tendency to uneven development arising primarily (but hardly exclusively!) from the ability of leading capitals to appropriate surplus profits through innovations implies that capitalist world money necessarily tends to flow in a manner that allows surplus profits to be appropriated in relatively few privileged regions of the world market, whatever the cost to individuals and communities in other regions.

Neoliberal theories and policies ignore each and every one of these structural features of the world market. When all is said and done, the far more radical proposals of Post Keynesians leave these tendencies in place as well. The ideals underlying Post Keynesian calls for a new form of money are commendable, but no form of world money can fulfil the tasks Davidson assigns as long as the social relations of capitalism remain in place.

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