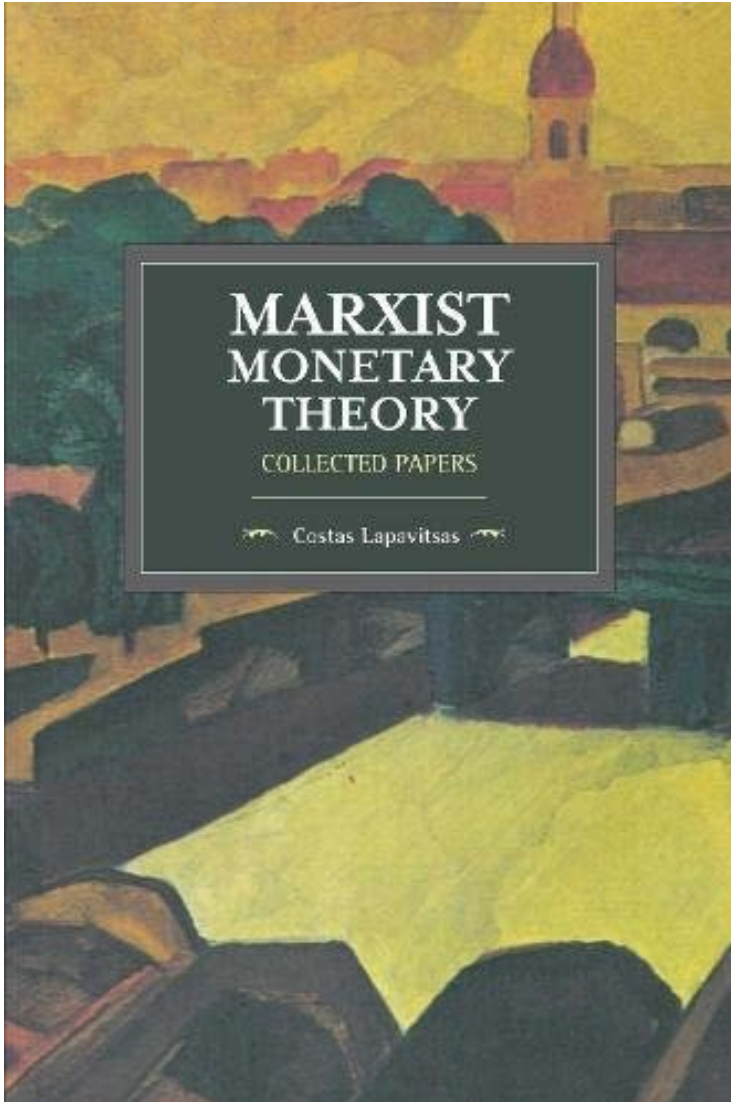


Marxist Monetary Theory

Collected Papers

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Preface

Putting together academic essays that span nearly three decades is a mixed blessing for an author. On the one hand, it affords the rare opportunity to present material published over many years, thus giving to the work a longer lease of life. On the other, it carries a whiff of intellectual 'establishment', thus posing the risk of intellectual oblivion. In publishing this book it was vital to take advantage of the opportunity, while minimising the risk.

It is pointless to attempt to sum up the arguments, findings and conclusions of decades of research on money and finance in a short preface. I will only state that the collected essays are cohesive despite ranging over a broad array of topics that include the relationship of money to commodities, the relationship of money to value, the historical emergence of money, the relationship of money to credit and finance, the social aspects and the non-economic role of money, and so on and so forth. Cohesiveness is the result of a lifetime's focus on money as the most peculiar economic phenomenon in any market economy and, above all, in capitalism.

When I began to work on money and finance these topics were still very much a rarity among political economists. In the 1980s, Anglo-Saxon political economy focused overwhelmingly on 'real' phenomena, such as exploitation, labour relations, technology, and investment, not to mention the hardy perennial of the Tendency of the Rate of Profit to Fall. Finance was very much consigned to the epiphenomena, the froth that apparently swirls on the surface of the 'real' world of capital accumulation. To be sure, there were a few shining exceptions, but that was it, pretty much.

How things have changed. There is now a steady output of articles and books on money and finance, in spite of the relative decline of political economy. The reason is, needless to say, the transformation of the developed world since the late 1970s, which is best characterised as the financialisation of capitalism. Finance has grown enormously as a sector of the economy and its influence is felt in nooks and crannies of social life that would have been far out of its reach only a few decades ago. Money has become the organiser of social, family and personal life in ways unthinkable to previous generations. The profits, wealth and privileges of the ruling classes across the world have come to rely increasingly on the institutions, practices and mechanisms of the financial system.

The rise of finance has been accompanied by a hardening of the rule of capital over labour, thus tightening the screws of exploitation domestically and establishing the dominance of conservative economics and politics inter-

nationally. Neoliberalism has emerged triumphant in economic policy, not least because it has all the necessary characteristics to provide an appropriate intellectual mantle for financialised capitalism – it is dogmatic, ignorant of other approaches, analytically powerful and synthetically feeble. Only neoliberals could come up with the arrogant belief that ‘There Is No Alternative’ to economic policies based on austerity, deregulation, privatisation and wage restraint.

Unfortunately for the dominant conservatism the financialisation of capitalism has worsened the social conditions of the majority of the population as well as greatly increasing economic instability. There should be no surprise at the exacerbation of instability, for such has been the role of money and finance throughout the history of capitalism, and even before it. Money does not merely organise the capitalist economy, and nor does finance simply marshal capitalist resources with a view to expanding accumulation. Both sharpen the instability that is inherent to capitalism’s exploitative core, thus acting as catalysts of great crises. The hallmark of financialisation has been the outbreak of periodic, and at times general, turbulence in economic life.

No crisis of financialised capitalism has been greater than the massive disturbance of 2007–9. That tremendous shock to the core of the world economy has continued to reverberate up to the present, while accumulation has not found even a semblance of vigour. Finance still rules the roost, but has lost much of the arrogant confidence of the 2000s. Similarly, economic policy still aims at largely protecting the interests of financiers and lenders, but entire economies flounder between stagnation and low growth, real incomes are failing to rise in a sustained way, and unemployment has remained very high in several countries. Financialised capitalism is a deeply diseased world.

The disease is particularly apparent in Europe, caught in a trap of weak growth, high unemployment and low incomes fostered in large part by the common currency, the euro. Never has the power of money to shape economic life, and even to hold nations captive, been demonstrated more sharply than in Europe since 2010. The euro – a form of money that is managed by a small elite – was created presumably to act as a means to economic prosperity. Instead it has become the end of economic policy across Europe’s monetary union. Much of European economic life has been reshaped to ensure the survival of this artificial money, new institutions have been continually formed to support its existence, and the pattern of capitalist accumulation has been disrupted across several countries in the hope of making it compatible with the functioning of the euro. In the extreme case of Greece, the economy has been ruined and the population has been psychologically terrorised by the common currency.

It is hardly surprising, therefore, that interest in money and finance has steadily grown among political economists during this period. New work has been regularly produced and searching questions have been asked about money and finance. The collection of essays in this volume seeks to address precisely this audience. For researchers who are just entering the field, but also for those who have been in it for some time, there will hopefully be insights that open new paths. At the very least, there will be questions that call for urgent answers. Half the job of research, lest we forget, is to formulate the questions.

The advantage of working on money and finance in this respect is that they are not merely fundamental to the capitalist economy, but also offer privileged analytical awareness of the workings of capitalism. It is far from accidental that some of the greatest figures in economics, such as Ricardo and Keynes, were monetary theorists. Money represents the crystallisation of the fundamental relations of value and acts as the unconscious organiser of a market economy. Grasping its functioning affords exceptional insight into the operation of the economic system as a whole. It is no exaggeration to say that money and finance form a window into the very heart of capitalism.

From the perspective of the researcher, furthermore, money provides a near-inexhaustible source of interest. It would never have crossed my mind when I first started my work that there would be artistic qualities to money, other than the perfectly obvious one of pictorial symbolisation. And yet, it turns out that there is considerable intellectual scope to money as art, a point that is clearly manifested by ancient coinage but which remains valid for other forms of money. I have thus begun this book with a hitherto unpublished essay on Money as Art, which discusses precisely this aspect of money, particularly in connection with the Frankfurt School. The essay has been placed at the beginning of the collection, as befits a piece that appears for the first time, but it is perhaps best tackled after reading the remaining chapters, not least because it requires a good command of the theory of money.

In closing this preface perhaps I should be allowed a personal declaration: I have been a Marxist for as long as I have had a conscious understanding of the world, and certainly long before I began my academic studies. In my native Greece I hail from a tradition of convinced adherence to political Marxism of which I am instinctively proud. Inevitably I chose Marxism as the theoretical framework for doing economics. To me it seems to offer the unique advantages of analytical precision and synthetic power, while maintaining historical awareness. How could economics be conceived as a social science without these characteristics?

The Marxism to which I subscribe, however, has no problems with learning from other traditions in economics, nor with absorbing their intellectual break-

throughs, as Marx did in his own work. It has even fewer problems with learning from other disciplines. The essays in this volume exhibit the influence of post-Keynesianism as well as showing familiarity with mainstream economics, not least because I was trained in it and have been teaching it for decades. They bear even more clearly the imprint of sociology and anthropology, where some of the most innovative work on money has been undertaken during the last few decades. I am delighted to acknowledge all these influences. To me this is the spirit in which Marxism has to proceed, if it wishes to maintain its relevance to a constantly changing capitalism.

Finally, I believe strongly that the aim of Marxist analysis should be, in the words of the master, not merely to interpret the world, but to change it. The struggle against capitalism is unremitting, including the fight against the most egregious inequities of financialisation. The coming years will be pregnant with social and political upheavals. It would be a source of great satisfaction to me if this work proved of help to those who aspire to the socialist transformation of society.

Money as Art: The Form, the Material, and Capital

1 The 'Aura' of a Work of Art

In *The Work of Art in the Age of Mechanical Reproduction*, Benjamin observed that:

Technological reproduction of the work of art is something ... that has been practised intermittently throughout history, at widely separated intervals though with growing intensity. The Greeks had only two processes for reproducing works of art technologically: casting and embossing. Bronzes, terracottas and coins were the only artworks that they were able to manufacture in large numbers. All the rest were unique and not capable of being reproduced by technological means.¹

Benjamin's observation, as is well known, relates to the singularity, genuineness, or 'aura', of a work of art, i.e. to the 'quintessence of everything about it since its creation that can be handed down, from its material duration to the historical witness that it bears'.² The 'aura' of a work of art is very much part of the tradition into which the work is embedded, and is inseparable from its ritual function. Historically, the ritual that surrounds a work of art has, of course, been cultic (magical or religious) in the first instance. But there has also been a secular ritual attached to works of art, which Benjamin calls 'the service of beauty'.³ With the Renaissance, the secular, or profane, aspect began to detach itself from the cultic, gradually taking over the ritual function altogether.

For Benjamin, the end of 'aura' came with the emergence of truly revolutionary capabilities of reproduction within advanced capitalism. If works of art could be reproduced easily and in high volume, then art would be freed from reliance on ritual. The 'aura' of the work would be destroyed by mechanical reproduction:

1 Benjamin 2009, p. 230.

2 Benjamin 2009, p. 233.

3 Benjamin 2009, p. 236.

Reproductive technology, we might say in general terms, removes the thing reproduced from the realm of tradition. In making many copies of the reproduction, it substitutes for its unique incidence a multiplicity of incidences. And in allowing the reproduction to come closer to whatever situation the person apprehends it is in, it actualizes what is reproduced.⁴

The destruction of the ‘aura’ entails the triumph of the ‘display’ value of a work of art and the disappearance of religious or cultic value, as is apparent for photography and film. More than that, however, the destruction of the ‘aura’ changes the relationship of the ‘masses’ to art. A mechanically reproduced work of art comes closer to the ‘masses’ and changes the participation of the ‘masses’ in appreciating art. To be sure, the ‘masses’ tend to absorb art in a ‘distracted’ manner, rather than by ‘contemplating’ it,⁵ but repeated exposure creates the habit of appropriating art even among the ‘distracted’. Direct contemplation, after all, is not enough to apprehend art at times of great historical upheaval. It is also necessary for the ‘masses’ to ‘get used’ to works of art and to operate as active participants in the process of appropriation, even if ‘distracted’, as when they are the audience of film. Thus, politics becomes the terrain through which art is appropriated by the ‘masses’.

The reason for revisiting this hallowed – and much-trodden – ground of cultural and art theory is Benjamin’s throwaway remark that coin is a work of art, and moreover one whose ‘aura’ has been subjected to the destructive influence of mechanical reproduction since the depths of historical time. Benjamin’s observation appears unobjectionable at first sight, as it refers to ancient Greek coins. But what about other coinage? Once that question is asked, others naturally follow: What about banknotes? And credit cards? And so on. Indeed, is it really money rather than simply coin that is art in some profound sense?

Moreover, if money does have an artistic dimension, would that shed any light on the very issue that Benjamin came to grips with, namely the transformation of the work of art as capitalist relations have gradually come to dominate society? Coin has indeed been mechanically reproduced for millennia, a feature that is inherent to its nature. But in the capitalist world, money has been transformed from metallic disc, to strip of paper, to book entry, to electronic signal. Does the transformation of money and its material offer any insight into the transformation of artworks as capitalist relations have ramified into new

4 Ibid., original emphasis.

5 Benjamin 2009, pp. 254–5.

areas of social and private life? And does the transformation of money have any bearing on the relationship between art and the ‘masses’?

Before engaging with these questions, however, it is instructive briefly to turn to Adorno’s ‘On the Fetish Character in Music and the Regression of Listening’, which, as Bernstein comments in the introduction to *The Culture Industry*,⁶ is best regarded as a polemic against Benjamin’s essay. Adorno implicitly rejected the notion that the work of art has an ‘aura’ that is destroyed by mechanical reproduction: the penetration of the art world by capitalist relations has very different implications for the apprehension of art by the ‘masses’. Adorno’s argument pivoted on ‘musical fetishism’, witnessed in the extreme through the commercial use of music as background to other activities. ‘Serious’ music is far from immune to this fate, which could befall even Beethoven and Bach. For Adorno, this is the result of Marx’s ‘commodity fetishism’ subverting music. Thus:

If the commodity in general combines exchange value and use value, then the pure use value, whose illusion the cultural goods must preserve in a completely capitalist society, must be replaced by pure exchange value, which precisely in its capacity as exchange value deceptively takes over the function of use value. The specific fetish character of music lies in this *quid pro quo*.⁷

The person who goes to a Toscanini concert ‘is really worshipping the money that he himself has paid for the ticket’.⁸ Exchange value has become the object of artistic enjoyment, a process that is ever more inexorable as exchange value dominates and destroys use values for human beings.⁹ It is the act of buying that offers the pleasure, not the art object *per se*, a fetishism that degrades the quality of music.

6 Bernstein, in Adorno 1991, p. 4.

7 Adorno 1991, p. 34.

8 *Ibid.*

9 Strictly speaking, Marx’s ‘commodity fetishism’ does not refer to the domination of use value by exchange value, but to the inversion of underlying social relations as exchange value takes centre stage in the production of commodities: relations among human beings thus appear as relations among things. From this perspective, the ‘fetishization’ of music would properly mean that the labour of the composer – particularly in its social dimension – vanishes from view, once music becomes a commodity. This is manifestly not what Adorno had in mind. His ‘fetishization’ of music is, properly speaking, the systematic commodification of music, which presumably subsumes its use value ‘as music’ to its exchange value. This misapprehension is of fundamental importance to the analysis in the rest of this chapter.

For Adorno, as capital penetrates society and shapes it according to its own dictates, use value is subsumed under exchange value, and thus art is fetishised because its cultural (and artistic) use value comes to be replaced by exchange value. This process lies at the foundations of the culture industry, which is a homogenising force that eliminates the particularity of art and produces a universal outlook of debasement. The loss of artistic value corresponds to the cultural impoverishment of the 'masses' that consume such art. Listening to 'fetishized' music thus 'regresses' and is arrested at 'an infantile stage'.¹⁰ The more that music submits to mechanical reproduction, particularly in advertising, the more that 'regression' assumes a 'compulsory character'.¹¹ Far from transforming music in a progressive direction, the emergence of popular music, produced capitalistically for the 'masses', degrades both music and the 'masses'.

This was the foundation of Adorno's view of the distinction between 'high' and 'low' art, not to mention his opinion that the domination of culture by capital eliminates the particular and destroys opposition to capital. The contrast with Benjamin regarding the relation of art to the 'masses' and the hold of exchange value on individuals is sharp. Could money, which has been subjected to mechanical reproduction from an early stage, shed any light on these issues?

2 Money as a Form of Art

Does money constitute a form of art? Benjamin appeared to be in no doubt as far as ancient Greek coins were concerned, and anyone who has walked into the Numismatic Museum of Athens could not but concur. Greek coinage in all its silver magnificence is displayed in the rooms of the neoclassical residence originally built by Ernst Ziller for Heinrich Schliemann, the man who dug Troy and then Mycenae. The sense of being in the presence of art is immediate and gripping. Yet money in general has long predated coinage, taking several other forms in the course of history. When it comes to measuring value, for instance, money was oxen in Homer,¹² and so it still remains among the Nuer of Africa.¹³

10 Adorno 1991, pp. 40–1.

11 Adorno 1991, p. 42.

12 Schaps 2004, pp. 69–70.

13 Even if the introduction of 'proper' money has enormously complicated the functioning of cattle as money (Hutchinson 1996, ch. 2).

Ancient Greek coins were perhaps art but, try as one might, it is hard to identify the artistic value of a herd of cattle. And what might be the artistic aspect of bank accounts and computer entries?

An answer to this question could be found by considering Greek coins more closely, particularly as, on further reflection, their nature as art is far from straightforward. An Athenian tetradrachm, an *owl*, or even more, an individual Aeginetan stater, a *tortoise*, are without question craft objects of exquisite beauty. But are they works of art? Seen as individual objects, the answer would be in the affirmative only if one were prepared to stretch the meaning of art to breaking point. Consider though what happens when one is confronted with a large number of Greek coins, especially if there is also variety of type. In the rooms of the Numismatic Museum of Athens, with their profusion of different coins bearing a wealth of representations, the presence of art is indisputable. The visitor is surrounded by a veritable matrix of gods, heroes, symbolic images and inscriptions, depicted delicately in silver. An Athenian *owl* by itself is hardly art, and yet a set of classical Greek silver coins most certainly appears to be. When Greek coins are put together in significant numbers, their artistic quality emerges clearly, but when they are considered individually, their status as art is far from obvious.

What, then, gives to a set of Greek coins their artistic quality? The material is undoubtedly important, as is the delicacy of the silverwork. However, a moment's reflection would show that it is not the charm and beauty of Greek coins that turns them into art. Indeed, the source of their artistic content is deeper and related to the fact that the coins once actively functioned as money. For if the observer were not aware of these objects having been money, the images would have remained delicate and the material would have continued to glisten, but the objects would have been plain silver discs devoid of content, perhaps someone's folly. Yet when the observer is aware of the objects' ancient 'moneyness', their power to connote ideas and sentiments becomes enormous. It follows immediately that the artistic aspect of Greek coins, which Benjamin took for granted, is rooted in their 'moneyness', while the beauty of the images and of the material is of secondary importance. Their artistic content is easier to apprehend in large sets which make it easier for the collective 'moneyness' of coins to appear as a tangible social and historical fact.

To be more specific, each Greek city-state strove to convey something of its civic pride, its religious beliefs, its power, and its perception of beauty through the images and the material of its coins. Because the observer is aware of 'moneyness' even two millennia later, the coins are capable of symbolising the perception that Greek city-states had of themselves, thereby constructing a picture of the Hellenic world as a whole, homogeneous and yet highly individu-

alistic. A set of Greek coins recreates symbolically the power, religious beliefs, rituals, and plain commercial cupidity of a long-lost world. Rarely has the unity and the fractiousness of the Greeks been better captured than in the rooms of the Numismatic Museum of Athens. How could this not be art of a high order?

It thus appears that money does have an intrinsic artistic dimension which is immediately apprehended in the exquisite form of Greek coins. This artistic dimension is rooted in ‘moneyness’ itself – above all, in money’s ability to symbolise relations, practices and institutions – rather than in the beauty of money’s particular forms. As is discussed in subsequent sections, ‘moneyness’ is a representation of pure exchange value, the embodiment of the ability to buy, which captures the essence of commercial relations within and among societies. It is a dull essence, devoid of other determinations, and hence it can be highly pliable in symbolising other relations, including those of social and political power. This is the root of money’s artistic value.

But if money has an artistic aspect because of its ‘moneyness’ rather than the beauty of its particular forms, it follows immediately that bank accounts, cheques and electronic money also have an artistic dimension. The material of money is certainly not irrelevant to money as a work of art, but neither the material nor the aesthetic beauty of money’s particular forms actually determine its status as art. Money’s artistic dimension derives purely from being money. By this token, a herd of cattle probably does have artistic value in the eyes of the Nuer. After all, it seems that, through their cattle, the Nuer acquire a sense of self as well as developing relations among themselves and with the divine – people and cattle ‘are one’.¹⁴ This startling conclusion and the complex implications that emerge as the form of money evolves in a capitalist society are discussed in the rest of the chapter. But first it is necessary to delve a little deeper into money’s artistic aspect, considering it in terms of purpose and function.

Money is certainly not produced as a work of art.¹⁵ Rather, the purpose of the ‘mechanical reproduction’ of money is to create the universal equivalent, i.e. the means of purchase, payment and hoarding in a commercial economy. Rarely could art be associated with a more pedestrian motive, nor with functions of a crasser and more insensitive disposition. The acts of commerce and the representation of value in a commercially adequate form are not a natural abode for the artistic spirit. Even when money is produced explicitly to pro-

14 Hutchinson 1996, pp. 59–63.

15 Commemorative coins are a different category and only tangentially relevant to this chapter.

ject state power, the thinly veiled violence and the arbitrary prerogatives of the state hardly constitute a propitious terrain for art. The artistic content of money thus appears to be an accidental feature of a thing that is produced for entirely different reasons.

On further reflection, however, even this ostensibly paradoxical aspect of money is evidence of its artistic nature. For, as Benjamin observes, works of art have historically been inseparable from their other functions, which were often magical or religious. The Renaissance opened the way for the triumph of the secular function of art, while the domination of society by capitalist relations brought the final demise of the ritual or cultic value of artworks. Art has become profane, detached from other functions, and even its rituals are largely secular. Yet money has never undergone the separation of functions that typifies art in late capitalism. Indeed, money could not be produced 'as art' and still remain money since its artistic aspect is an integral part of its functioning that flows from its 'moneyness'. For this reason, money is a throwback to art in its primordial form; it is a peculiar relic of a bygone era.

To be precise, the impossibility of separating the artistic from the other dimensions of money is due to money being fundamentally an economic phenomenon rooted in commodity exchange. Despite the many forms that money has acquired in the course of history and its highly variable presence in different societies, it remains the universal equivalent, or the independent form of value. Money is the quintessence of markets, whether these are the emporia of the ancient Greeks, the bazaars of Damascus, or the Chicago Metal Exchange. The broader symbolic and other functions that money accrues – varying with the characteristics of each society deploying it – are due to its fundamentally economic nature, i.e. to its ability to encapsulate value relations. Religious forms of art are able to shed the cultic aspect, while retaining a purely aesthetic value. But if money shed its economic aspect, it would retain none of its artistic dimension because it would become a meaningless object. For money to be art, it must be produced as money, and it must retain its 'moneyness' throughout. In this regard, contemporary money is a truly ancient form of art, an instance of the original unity of the artistic and other functions when art was inseparable from the multiple purposes of its objects.

An analogue with money can be found in the icons of the Orthodox Church, beautiful objects produced as symbolisations of the divine. There is no separation of the secular and the cultic aspect of art in Orthodox icons. The monks in the rocky fastnesses of Mount Athos still create outstanding specimens, but they are not engaged in producing 'art'. Unlike the Western Church, to them an icon is first and foremost a religious object allowing communion with God.

There must certainly be beauty to it, and there are strict and rigid rules on how to render it, but creating an artwork is not the purpose of the painter. And yet the icons remain art of a high calibre, particularly for believers for whom they open a symbolic window to the divine. In its profane and secular manner, money is similar to an icon: it is created for a rigid economic purpose under strict rules and attains an artistic value that is inseparable from its economic functioning.

3 The Material of Commodity Money and Its Symbolic Function

Identifying money as a form of art offers a fresh path to examining the issues that concerned Benjamin and Adorno, but it is first necessary to look more closely at what money is and how its own form develops. Both of these questions have long exercised economic theory; suffice it to say that the approach adopted in this chapter derives from Marx's analysis.¹⁶

Money is the 'universal equivalent' which emerges as the dialectic of the 'relative' and the 'equivalent' forms of value is played out in commodity exchange. Summarising ruthlessly, in any exchange transaction, the 'relative' form of value is adopted by the commodity that actively initiates the transaction and thereby 'expresses' its own value in a quantity of the other commodity, i.e. in the 'equivalent' which passively responds to the 'relative'. The dialectic of relative and equivalent unfolds as exchange becomes general and regular, eventually leading to one commodity becoming selected as that in which all others 'express' their value (i.e. make it into the 'universal equivalent'). Put differently, money emerges as all other commodities are offered for sale against it, thus enabling it to buy commodities in general. The universal equivalent is the commodity that independently represents value for all others, or the commodity that can buy in general.¹⁷

Key to this argument is the idea that the universal equivalent is a creation of the other commodities; it is a spontaneous outcome of the exchange process. Consequently, money acquires what Marx calls a 'formal' use value,¹⁸ which exists purely because of the process of exchange and is additional to money's other use value as a plain commodity:

16 For further discussion, see Lapavitsas 2013, ch. 4.

17 The dialectic of relative and equivalent and the emergence of money are examined in detail in Lapavitsas 2005a.

18 Marx 1976b, p. 184.

The money commodity acquires a dual use-value. Alongside its special use-value as a commodity (gold, for instance, serves to fill hollow teeth, it forms the raw material for luxury articles, etc.) it acquires a formal use-value, arising out of its specific social circumstances.¹⁹

The formal use value of money is its defining feature, amounting to its ability to express the value of – and thus to buy – other commodities. An insightful way of comprehending the formal use value of money is through what contemporary economics calls ‘network effects of externalities’. Assume that some commodities ‘express’ their value in a single commodity; by so doing, they make it more advantageous for others also to ‘express’ their value in the same; the more the single commodity functions in this manner, the stronger becomes its ability to act as universal equivalent still further; hence the stronger becomes its ‘money-ness’. Network effects inevitably reflect the social, institutional and customary features of the process of commodity exchange, but also the specific features of the commodity actually chosen as money. The commodity typically chosen in the course of history is, of course, gold or silver.

It follows immediately that, contrary to Adorno, the ‘masses’ are not mere playthings of the dialectic of value, but actively establish the essence of money. Money is what it is because the ‘masses’ accept it as money, deploy it as such, and expect others to accept it similarly. Money rests on an implicit common understanding among the ‘masses’, on a bedrock of unspoken trust; its customary use, in turn, strengthens the implicit understanding of ‘money-ness’ among the ‘masses’. Since all expect money to be able to buy, owners of commodities express value in money, and accept money. Owners of money, in turn, are able to give to owners of commodities an adequate form of exchange value, but only because other commodity owners are expected to continue receiving money on the same basis. There is social acceptability invested in money which is individually and collectively sustained by commodity owners and which makes money what it is.

Social acceptability also lies behind money’s artistic dimension. Money is capable of symbolising power, religion, wealth and even an attitude toward life itself because the ‘masses’ invest in it a commonly held trust deriving from shared attitudes, beliefs and knowledge. This implicit trust depends on money having standardised and easily recognisable forms. It follows that when money is mechanically reproduced in the form of coin, the basis of implicit trust is broadened, and money’s functioning is strengthened. It also follows that

19 Ibid.

money could be art precisely because it does not have an 'aura': those who observe and receive it are instantly and directly familiar with it.

Two factors are of paramount importance in this regard. The first is the material of the money commodity, which the 'masses' turn into a repository of social trust, and which must therefore exhibit authenticity, durability, and transferability. As the bearer of social trust and acceptability, the material of the money commodity would also become the embodiment of money's symbolic power. Thus, gold *per se* acquires a direct association with artistic expression. Gold colour, or gold leaf, is the background *par excellence* of Christian medieval iconography; both gold and silver are the classic materials of religious art; gold is the linguistic source of Benjamin's 'aura' as well as of the golden halo, the nimbus, that appears in works of religious art.²⁰ Gold is directly money and hence it is directly art.

The second is the imprimatur of the state which validates the social acceptability of the material of money among the 'masses'. The state is an overarching social entity with the power to augment the social trust spontaneously generated among commodity owners. The state validates the representation of value by the material of money by typically cutting money into coin, and thereby also standardising it. In its coin form, money cannot have an 'aura', but it must have genuineness – it must carry the insignia of state power, it must not be worn out, and it must not be counterfeit. The images inscribed on the coin, furthermore, must be part of the ideological and conceptual make-up of its society, if people are to trust and accept it. The coin is thereby capable of directly symbolising the society that deploys it. Even when it is clipped, rubbed or otherwise corrupted, the coin is still capable of conveying the dishonest side of its own society down the ages.

Both factors are fundamental to commodity money recreating as art the society that gave birth to it. In classical antiquity, the delicate and playful images of the silver coinage of Greek city-states gave way to the grave mien of King Philip II of Macedon, exuding monarchical power and near divinity. His son, King Alexander the Great, despite having fully risen to the status of divine ruler of the world, appears not to have placed his image on his own coins, which he cut in abundance from gold and silver seized from the Persian kings. Nonetheless, he did use the image of Heracles wearing the lion skin, thus opening the way for his epigoni to place his head on their coins wearing the horns of Ammon, the proboscis of an elephant, the lion skin and a host of other symbolic objects. The symbolism of the god-king was vital

20 Shell 1995, pp. 38–44.

to the legitimacy of the Hellenistic kingdoms that emerged from Alexander's imperial conquests, and Hellenistic kings naturally inscribed Alexander's as well as their own image on their coins. The world had changed profoundly since the Greek city-states, and thus Hellenistic coins nicely mixed divinity with resolutely realistic representations of the facial deformities of the king. The world had changed even more profoundly in imperial Roman times when state power backed by divinity was projected by coins that were solid, well-made, authoritative and dull, like the bridges and aqueducts of the Romans. And what could be a more vivid representation of the Byzantine world than the gold solidus, the *nomisma*, dominating monetary transactions in the deepest Middle Ages, with Christ, the head of the divine order, on one side, and the Emperor, the head of the *oikoumeni*, on the other?

4 The Dematerialisation of Money in Advanced Capitalism: Money as Layered Symbol

In advanced capitalism, money has become distinctly different from historic coin because it has become dematerialised, while its reliance on the imprimatur of the state has, if anything, become stronger. Thus, the two elements that shape the acceptability and the symbolic functioning of money have followed very different paths, with major implications for money's artistic dimension in the contemporary world. Commodity money has ceased even formally to be a means of circulation and payment, retreating into vast hoards kept by a few central banks.²¹ It no longer plays a direct monetary role, but acts as the ultimate embodiment of value and wealth, a hoard of last resort kept by the state. Gold also remains a private hoard, a small island of certainty in a deeply uncertain world, for those who can afford to keep it.

A major step along this path was for money to assume the form of a paper slip – a note – which remains a physical material but is fundamentally different from gold since it is effectively valueless. It is intuitive that the social trust necessary for a valueless piece of paper to become money is of a different order of magnitude. Beyond this rather obvious point, however, the analysis must tread carefully if it is not to lose track of relations that are fundamental to the functioning of capitalist money. For there are two distinct types of money associated with paper slips, which lend a very different aspect to money's symbolic and artistic power.

²¹ For further analysis, see Lapavitsas 2013, ch. 4.

There is, first, fiat money, which the state issues directly, using it to pay for its own expenditures, or receiving it in payment of taxes. This is a form of valueless money that emerged fully in the eighteenth century and attained prominence with the *Assignats* of the French Revolution. Note that the emergence of fiat money has been induced by the process of exchange itself and was not an arbitrary act of the state. Commodity money naturally loses some of its material as it circulates – due to abrasion, rubbing off, and so on – and thus coin becomes naturally less than the thing it proclaims itself to be. In effect, coin symbolises itself. Commodity money, therefore, not only represents value and symbolises its own society, but also begins to symbolise itself. Fiat money is a proper symbol of commodity money created by the state which takes advantage of the room for symbolisation generated by exchange itself; it rests on the state's power to make and to receive payments in the form of money it chooses. Dematerialised money in advanced capitalism, in short, gives rise to a layered symbolisation and representation of relations based on state power and social trust, while attaining complexity unimaginable for commodity money.

There is also, second, credit money, which is issued by private financial institutions (typically banks) as they advance credit, e.g. the original banknote. This is also a form of valueless money that became prominent in the eighteenth century, notoriously so in John Law's bank experiment at the beginning of the century, but far more solidly by English banks toward the end. Credit money is not a symbol of commodity money, but is rather a private promise to pay issued by a capitalist enterprise (a bank). Put otherwise, credit money represents value but does not symbolise the money commodity. The network effects required for credit money to become money depend far more on the creditworthiness of issuing banks than on the power of the state, and that is also the basis on which it becomes the dominant money in advanced capitalism.

Credit money is inherently valueless since it is a mere private promise to pay which becomes money by being generally acceptable to 'the masses'. Its most striking feature is the protean variability of its form that goes together with its advancing dematerialisation. The original form of credit money, i.e. that of the private banknote, is soon left behind as other valueless and dematerialised forms emerge, typically associated with bank deposits, which remain promises to pay by a bank. Credit money soon appears as book entries, telegraphic signals, electronic signals, and so on. There is no mystery in its further dematerialisation, since the promise to pay by the private issuer does not have to exist on paper, or in another corporeal form, to ensure its acceptability by those who use it. What matters is trust in the issuer's ability to meet the promise made. Thus, as the credit system develops in advanced capitalism, credit money becomes a completely dematerialised independent representative of value.

What, though, is actually promised to be delivered by the private issuers? At the most abstract level, a bank obviously promises to pay the money commodity which acts as the final means of settlement. However, in advanced capitalism, the money commodity disappears from circulation and the final means of payment becomes fiat money: a bank promises to pay legal tender issued by the state. The final means of payment is actually created by the central bank which has the backing of the state and engages in credit transactions with private banks. Some elemental materiality is retained as the state awards to the central bank a monopoly of banknote issue. Nonetheless, the great bulk of legal tender is completely dematerialised and takes the form of deposits held by private banks at the central bank. The central bank creates banknotes and deposits as it advances credit to banks, both of which retain the form of a promise to pay, i.e. the original form of credit money. Yet the only thing that could be claimed in exchange for central bank money is itself. Contemporary legal tender has an empty self-referential form – it is, in reality, fiat money.

The series of representations and symbolisations of value, and the successive layers of trust necessary for the extraordinary evolution of money in advanced capitalism, also shape money's artistic dimension. In the form of the banknote – i.e. the small end of money circulation typically found in the possession of individuals – money retains some of the corporeality of coinage as well as coin's ability to reproduce the power, rituals, and beliefs of a society in pictorial form. As coin has done historically, so does the banknote in bourgeois society, above all, by capturing the outlook of national identity. The banknote is both lever and proof of national identity, an object that gains acceptability in the national market partly by reflecting a shared historical and cultural background. National symbols, cultural beliefs and popular prejudices are given visible form on the banknote, thus facilitating immediate recognition necessary for acceptability. And what ponderousness of representation, typically laden with the images of national achievement – heroes, battles, and great minds! Still, unlike past societies, advanced capitalist money is largely secular and thus excludes religious themes from its imagery.

The layering of symbolisation, which starts with the erosion of the coin's metallic substance that makes the coin symbolise itself, only grows denser with contemporary banknotes. Fiat money is a proper symbol of commodity money, an impostor circulating in the world of commodities on the say-so of the state. Once it starts to circulate as money, it naturally begins to symbolise other relations too, and typically those which any form of money would be capable of symbolising, above all, national beliefs and prejudices. For fiat money, which already symbolises gold, this is a second order of symbolisation; it is, as it were, symbolism built on symbolism. A sense of falseness and artifice pervades its

use, a tissue of fragility and make-believe that is poles apart from the solidity of the 'yellow metal'. The 'moneyness' of the contemporary state-issued banknote would collapse if the state mishandled its issue, leading to hyperinflation, a phenomenon that has been seared in popular memory in the twentieth century. Contemporary artists have acknowledged the layered and precarious symbolisation performed by the banknote, thus reproducing images of it in their own work: a case of art using art to deepen symbolisation. Similarly, artists have produced 'fake', or *trompe-l'oeil* banknotes to highlight make-believe and power relations at the heart of capitalist society; artistic counterfeits are a play on the difference between real and symbolic money, and thus on the precariousness of contemporary monetary exchange.²²

The layering of symbolisation reaches a peak when contemporary money becomes fully dematerialised, thus also revealing the foundation of the artistic content of all money. Private credit money in the form of book entries and electronic transfers is an immaterial presence that independently represents value and is thus capable of abstractly symbolising the ethical and moral qualities of mature capitalism. The pictorial aspects of coin and banknote are cast aside, together with the material of metal or paper, bringing to the fore pure 'moneyness' that symbolises power, belief, social standing and the ruthless cut-and-thrust of the market. A series of signs on a computer screen is technologically advanced and real, while also being immaterial and symbolic. It elides the abstract and the concrete worlds of value, rendering visible the arid heart of capitalist society. In a world that produces images as never before and which has consigned art to the task of ordering and manipulating these images to generate meaning, content and sentiment, the dematerialised form of money brings to the fore the pure artistic dimension of money. Dematerialised money is thus a natural ingredient of contemporary art that has become self-reflexive and conceptual.

Dematerialised money is a long way from Benjamin's 'mechanical reproduction'. Banknotes are certainly 'mechanically reproduced' and they necessarily have no 'aura' since they must be instantly familiar to ensure the required social trust. When it comes to completely dematerialised money, the very meaning of 'reproduction' disappears, but such money is no less capable of representing value and no less powerful in functioning as art. It follows that it is not 'mechanical reproduction' *per se*, but rather capitalist relations that shape money as art, as Bürger rightly observed in a more general discussion of Benjamin's

22 Shell 1995, pp. 87–106.

analysis.²³ And yet, the deeper point in this regard still belongs to Benjamin: the ‘masses’ come to apprehend dematerialised money directly and through repeated exposure – i.e. in ‘distracted’ fashion – thus investing it with trust. The ground is set more fully to examine the relation between money, the ‘masses’, and art.

5 The Ideology and the Fetishism of Money in Society and in Art

The ‘masses’ are the creators of ‘moneyness’, and thus of the artistic content of money, since they establish the social acceptability of money through the practice of exchange. Capitalism, however, is a class society and thus money also crystallises class relations of exploitation and oppression that are intrinsic to value. In this regard, the artistic dimension of money also resides in its ability to represent and symbolise the degradation of the human spirit, the loss of human values, perceptions, and sentiments in a society that has succumbed to the logic of capital. The issue for analysis is the manner in which these representations and symbolisations vary with particular forms of money, especially as money is dematerialised. There are two distinct aspects of money in this respect, namely ideology and fetishism.

Ideology is the holy grail of Marxist political theory and cultural philosophy, though its connection to money remains obscure. Instead of entering the morass of competing analyses, it is useful to be reminded of Marx’s own discussion of religion, for it has a parallel with money. For Marx, as Bürger notes,²⁴ religious ideology is ‘false consciousness’, i.e. the projection onto an imaginary entity of human qualities, sentiments and self-perceptions. Yet religion is not an ideology that has arisen arbitrarily, since it rests on the oppressive experience of class society and even serves the purpose of assuaging the bitterness of injustice and pacifying rebelliousness. Religion might be called a ‘necessary ideology’ whose falseness is irrelevant to its functional role.

There is an ideology of money in capitalist society that is similar to religion in both its falseness and necessity. It is ‘false’ insofar as it treats money as the epitome of human achievement, fostering a distinctive culture of vulgarianism in advanced capitalism. Money is commonly taken as the measure of social position, the proof of social worth, the gauge of professional skill, and not least as the guarantor of personal and familial security. Equally, money is understood

23 Bürger 1984, pp. 31–2.

24 Bürger 1984, pp. 6–7.

as the underwriter of aesthetic judgement, the setter of manners, the purveyor of ethical principles and the touchstone of justice. Money is also seen as the pivot of family and personal relations, not to mention the prism through which sexual relations are reflected. It is even the benchmark for all that is admirable in humanity, attesting to purity, generosity, compassion and solidarity. Things and people are 'good as gold', as the English say, or feel like 'a million dollars', as the Americans quip. Money, finally, betokens the qualities of national identity: 'Strong country – strong money', as the common perception runs.

The ideology of money is 'false consciousness' but also a true reflection of the underlying reality of capitalist society. Simmel observed that money is the destroyer of 'social distinction', eliminating ancient and traditional modes of social differentiation and replacing them with cash possession.²⁵ Capitalist society genuinely grounds its ethical, aesthetic, emotional, and even moral precepts on money, while a capitalist economy, organised around a national market, truly relates to other economies through the relative value of its money. The ideological perception of money as the measure of all virtues, feelings, relations and concepts is not a figment of the imagination which, if it were only pointed out, would lead to a search for deeper principles of human intercourse.²⁶ Economic, social and political life in the capitalist world is indeed shaped by the universality of money, as becomes immediately apparent to the individual who loses access to money, or to the nation whose money collapses in the world market. This brute reality is reflected in the ideology of money, which in turn strengthens the social acceptability of money, helping to make money what it is. Money, in both its material and dematerialised form, symbolises this narrow ideology that permeates capitalist society.

Fetishism attached to money, on the other hand, represents an entirely different set of relations. Freud considered fetishism to be induced by the realisation of the lack of a penis in the mother which becomes associated with an object, or a part of the body, turning it into a repository of sexual stimulation.²⁷ Fetishism is an expression of an absence that leads to the crystallisation of sexual desire onto a thing. In contrast, for Marx, commodity fetishism is an ideological summation of the deepest workings of the capitalist economy.²⁸ Commodity fetishism emerges fundamentally because the value of a commodity does not and cannot appear directly as what it is, i.e. as abstract

25 Simmel 1978, p. 394.

26 Zelizer (1994) shows that in practice people differentiate among types of money to which they attach variable ethical and other content; yet her work does not negate this point.

27 Freud 1927, p. 153.

28 Marx 1976b, pp. 164–5.

human labour. Rather, in the process of exchange, the value of one commodity (the relative) is necessarily expressed in the body of another (the equivalent). Value necessarily appears as a quantity of a thing (another commodity) instead of, say, hours of labour, and it attains an independent form when that thing becomes money.

Insight into the roots of commodity fetishism can be gained from the mental experiment undertaken by Marx in a critique of Proudhon's proposal to introduce 'labour money' as a way of abolishing exploitation.²⁹ For Marx, if value were to be expressed directly as hours of abstract labour (i.e. as 'labour money'), it would be necessary to have an overarching agency (perhaps a national bank) that would calculate socially necessary labours in a consistent way, taking into account the changing productivity of labour and the shifting composition of aggregate demand and supply. Value content would then be known in a socially valid way by all participants in economic activity. But then, the same agency would also be led to supervise and manage the exchange of products whose value it would have calculated, including labour power. Such a state of affairs would naturally suppress or exclude the market, and it would result in a society that was no longer capitalism. It follows that in an economy that remains capitalist, commodity value necessarily has to be expressed in things, and money has to represent value in general, acting as measure of value, means of exchange and payment, and store of value. Money has to be the recording and memory device of a capitalist economy, the glue that brings material things and processes together, the signal that marks the transfer of resources, and the instrument that rebalances the productive forces. In short, an inherently fragmentary society such as capitalism necessarily relies on the independent form of value to act as the unconscious organiser of the economy.

Value, though, is fundamentally a social relation among human beings. It is, first, a relation of the producer toward the product within a given framework of property and other institutions; it is also a relation of the producer toward other producers as they come into contact with exchange products; it is finally a relation of the owner of the commodity toward the labourers employed in its production. This complex set of social relations – incorporating property and power – vanishes from sight when value is expressed as another commodity (rather than as abstract labour) and comes eventually to be represented independently by money. Relations among human beings engaged in economic activity become subsumed under relations of commodities and money. The

29 Marx 1973, pp. 153–6.

labour of producers vanishes from sight and the magnitudes that are propelled into conceptual prominence are prices, quantities of money, production costs, and so on. The things that constitute 'the economy' are perceived by humanity as the dominant forces that shape life.

Commodity fetishism is, thus, not 'false consciousness', but a reflection of how the world actually is. An individual could fully comprehend the absurdity of commodity fetishism and rebel against prices, rates of interest, rates of profits, and the like, without reducing fetishism one jot. A conscious subject might fully realise that it is bizarre to have money as a thing shaping human lives, but money would continue to be the thing-like agent organising the capitalist economy. Nowhere is this more evident than in relations of debt, a salient feature of contemporary capitalism, in which money appears as an external force dictating the lives of households and individuals because, of course, it truly is such a force. The absurdity of the money fetish is built into the structure of economy, society and life itself.

In contrast to Adorno, commodity fetishism is not the triumph of exchange value, nor is it the relentless commodification of everything. On the contrary, commodity fetishism actually rests on things, i.e. on use values. The driving motive of capitalism is the self-expansion of value and its accrual as money profit, but capitalism never breaks completely free of use value. There is crass materialism at its heart, which is expressed in technologies, methods of organisation, and systems of provision, not to mention a labour force comprising skills, ages, habits and consumption preferences. Fetishism is the process whereby these material realities, as it were, learn to speak the language of value, forming relations expressed as costs, prices and various rates. Material realities thereby dominate relations among human beings as workers, capitalists, householders and ultimately as individual persons. At the same time, the material side of life comes to be perceived through the categories of exchange value, which then obscure social relations from view. The fetish of the commodity resides in part on the side of the material.

Such fetishism permeates neoclassical economics which focuses exclusively on relations among things, ignoring the social relations that lie at the root of economic phenomena, and dressing its crude materialism in a cloak of technical wizardry that pretends to be science. Similarly apparent is the fetishism embedded in commonly held economic views, for instance, that unemployment might rise and living conditions might worsen because 'the economy' is 'doing badly'. Fetishism is about the material side of life acting as the repository of value with its own independent form in money, and taking over the ethical, moral, emotional, and aesthetic side of life. It is about the putative helplessness of humanity in the face of the 'objective' forces of

the 'economy'. Crude materialism comes to rule in thought, but also in everyday life. Yet it rules because everyday life is crudely material under capitalism.

Money is the bearer and agent of commodity fetishism – not its symbol. In its material presence, be it gold or a banknote, money is the physical embodiment of fetishism, the material that concretely encapsulates the rule of things over human beings. Physical money deployed in works of art makes concrete (without symbolisation) the absurd reality of fetishism – it is thus art immediately and directly.³⁰ As money becomes dematerialised, the fetish takes a disembodied form, it becomes abstract and general and thus more social, since it is encapsulated in a set of book entries, or electronic signals. Nonetheless, dematerialised money continues to organise the capitalist economy, while the central bank manages this money with aggregate rationality, operating as a planner in an unplanned world. For the central bank, the ultimate aim is to foster the profit-making of capitalist enterprises, and the 'economy' is its field of reference. The central bank conforms to a fetish that is inscribed directly in the social and technical practices that guide society's money. It is a kind of 'rational fetish' that takes over mature capitalism, a fetish borne directly by dematerialised money, i.e. by a disembodied social presence that organises the functioning of the economy.

And how do the 'masses' respond to the fetish of money in mature capitalism? Žižek – drawing on Sohn-Rethel³¹ – claimed that commodity owners act as 'practical solipsists', that is, they ignore the social context of exchange but remain conscious of operating in their personal interest.³² They 'repress' the social dimension of exchange within themselves, and blindly, or unconsciously, act out the dialectic of value as a 'real' abstraction. Thus, the 'false' ideology of the commodity form becomes part of the conscious subject who acts 'ideologically' while performing exchange as a 'solipsist'.

Žižek is right that the abstraction of value is 'real', insofar as it is an economic process actually occurring in a capitalist economy, but his view of the conscious subject as a 'solipsist' acting out the abstraction without apprehending its social context is inadequate and misleading. Commodity owners expect money to have social acceptability, and thus expect others generally to have the same expectation. There is a commonality of consciousness in this respect that is immediately social, not least because it is based on mutually recognised

30 Strikingly so in Abraham Lubelski's 'bale of money' (see Shell 1995, pp. 108–9).

31 Žižek 1989, pp. 16–21.

32 Sohn-Rethel 1978, pp. 39–43.

symbolisations. Similarly, commodity owners expect others generally to share the ideology of money, even if that is 'false ideology'. Not least, commodity owners act out fetishism, which is not at all 'false ideology', by submitting to the material dictates of economic interaction. These material dictates are commonly perceived as external forces, the 'objective reality' of the 'economy'. Thus even fetishism is socially apprehended – there is no 'solipsistic' subject that is ignorant of the common prejudices surrounding exchange and focusing exclusively on personal interests. What else, for instance, is the common concern with 'inflation' as an external force that restricts access to wage goods?

The conscious subject remains aware of the dominating aspect of money over private and social life, not least because the actions of the subject inject the necessary acceptability into money. The 'masses' realise their own degradation in the course of capitalism and are not passive, 'solipsistic' or blind receptacles of the homogenising force of capital. This is why monetary insubordination is a characteristic feature of advanced capitalism, resulting in a profusion of alternative forms of money – green dollars, time money, and so on. Drawing on communal and associational relations that consciously strive to exclude the rule of capital, such forms of money continually emerge within contemporary capitalism. They symbolise practices and attitudes that reject capital and seek alternative forms of social organisation, no matter how inchoate these yearnings may be. The spirit of rebellion has not died among the 'masses', and therein lies hope.

PART 1

*The Forms, the Functions
and the Quantity of Money*



The Theory of Credit Money: A Structural Analysis*

Introduction

Mainstream economic theory does not systematically distinguish among the different forms of money. For most purposes of macroeconomic analysis, for example, it is immaterial whether the money supply comprises coins, banknotes, bank deposits or, indeed, gold. It is usually assumed that what matters most is the practical facilitation of commodity exchange, i.e. money's function as means of exchange. Any instrument that systematically plays this role could be considered as undifferentiated money.¹

This lack of interest in the peculiarities of various forms of money calls to mind Marx's comment on the 'off-hand way in which economists treat distinctions of form, since they are in actual fact interested only in the substantive side'.² Yet Marxist monetary theory has fared scarcely better in this respect. Marx has provided a sophisticated analysis of metallic money and of fiat paper money, but Marxist theory has found it very difficult to extend his analysis to modern money, such as banknotes and bank deposits. This is all the more remarkable in light of the fact that metallic money is actually inherited by capital from feudalism. Marxist theory, whose express aim is the analysis of capitalism, is rather laconic on the effect of capitalist exchange relations on the forms of money.

The central contention of this chapter is that a close connection exists between the forms of money and the functions performed by it in capitalist exchange. The modern banknote, for instance, tends to perform circulating functions, while depository money tends to function as means of payment (standard of deferred payments) and means of hoarding (store of value). The close connection of form and function implies the existence of important qualitative differences among the forms of money. I will argue that different factors determine the quantity and movement of money in the sphere of circulation when money is gold, banknotes, deposits, and so on.

* First published as 'The Theory of Credit Money: A Structural Analysis', *Science & Society*, 1991, Vol. 55, No. 3, Fall, pp. 291–322. We are grateful to the publishers for the reprint permission.

1 See, for instance, Friedman and Schwartz 1970, ch. 3.

2 Marx 1981, p. 440.

One implication of the above is that the form of money (and the corresponding function) is significant in the study of the endogeneity of the quantity of money. I will examine the relevant endogenous factors in some detail and argue that they differ qualitatively for different forms of money. These differences are due to the structural links of the various forms of money with the underlying process of capital accumulation.

Credit is fundamental in this connection. The interaction of different types of credit, namely commercial (the sale of commodities against promises to pay) and monetary (the lending of money), materially affects the determination of monetary mediation in capitalist exchange. The peculiarities of banknote money are best understood when such money is treated as the product of the interaction of commercial and monetary credit. By examining this interaction we can demonstrate the endogenous factors influencing the quantity of banknotes in circulation. I will further discuss how depository money supersedes the banknote as the dominant form of money when monetary credit rises in significance in capitalist exchange. A corollary of the link with credit is that the category of the rate of interest (closely connected with monetary credit) matters more for the analysis of banknotes and deposits than of gold and fiat money. However, and unlike the usual approach of monetary theory, fundamental endogenous aspects of capitalist accumulation, such as the tendency to generate hoards of money, have to be theorised prior to the appearance of the rate of interest in the analysis.

Marx's own work remains of significance in this field. His approach was to treat money as a more fundamental category than credit and thus to begin his monetary analysis by largely abstracting from credit relations. I will argue in Section I that this allowed Marx to demonstrate the qualitative differences among simpler money forms, namely gold and fiat money. For such forms of money their differences could be summarised in terms of their mode of entry into and exit from the sphere of circulation, the shape of their path in circulation and the factors determining their quantity in circulation. Behind Marx's well-known rejection of the Quantity Theory of Money lay his treatment of the quantity of gold in circulation as endogenously determined. I will explore this aspect of his work and also discuss his little-known version of the Quantity of Money identity.

Section II will explicitly introduce credit, and examine more advanced forms of money, such as banknotes and deposits. Marx's insights into the relation between commercial and monetary credit and the connection of both with real accumulation will be of use here. I will first establish the qualitative differences between advanced credit money and simpler forms of money. I will then argue that the quantity of money remains endogenous, but in a necessarily

more complex form. The contention here is that endogeneity could not be captured as mere functional dependence of the supply of money on the rate of interest. Rather, more fundamental factors such as the cyclical behaviour of commercial credit and hoard creation have to be considered first. Historical and institutional factors will also influence the behaviour of credit money. The analysis will concentrate primarily on the peculiarities of banknote credit money but related aspects of the deposit system will also be discussed.

I Content, Forms and Functions of Money

Marx's finished writings on monetary issues were mainly concerned with the theoretical determination of the essence of money.³ His exposition was rather abstruse, not least because of the intensely philosophical mode of thought employed. It is commonplace that Marx derived money as the resolution of the contradictions between the exchange value and use value of the commodity.⁴ These contradictions were seen as the source of the oft-theorised difficulties of barter, the double coincidence of want. The essence of money is to represent value in its own body, to be the 'universal equivalent' able to overcome the problems of barter.⁵ Contrary to what is frequently assumed,⁶ Marx's theory was not that the essence of money is to be gold; rather, gold is a fundamental form of the 'representative of value'.

From this definition of money, three functions were derived by Marx in strict order.⁷ Function one is to measure value and serve as the unit of account. The labour theory of value treats commodity values as determined in the process of production. Since the essence of money is to represent value, its first function has to be to measure commodity values and assign prices.⁸

3 See, for instance, Marx 1976b, pp. 125–244; and 1970, pp. 64–187.

4 For Marx, the contradiction is subsequently reproduced more complexly at the level of monetary exchange. The latter is subject to mismatches of demand and supply which might lead to generalised commercial crises, i.e. Say's Law does not hold; see Marx 1973, pp. 148–9.

5 Marx 1976b, p. 159.

6 For instance, Cutler et al. 1978, p. 5.

7 Rosdolsky recognised this to be a highly specific feature of Marx's monetary theory (1977, p. 135). Mainstream economic theory, by contrast, does not acknowledge any necessary order in money's functions, usually taken as measure of value, means of exchange, standard of deferred payments and store of value. This view has also influenced Marxist works on money; see, for instance, Cutler et al. 1978, pp. 16–17.

8 There is an ongoing debate as to whether 'valueless' money contradicts the function of measure of value. See Weeks 1981, pp. 115–16; Cutler et al. 1978, 9–15; Lipietz 1983, p. 22.

Function two, the means of circulation, follows from the first: money, which has set commodity prices, proceeds to realise them.⁹ It is important to note that ‘means of circulation’ refers specifically (and narrowly) to purchase and sale of commodities, rather than to other monetary transactions, such as debt settlement and general payments. For the latter, Marx reserved the third function of money, money as money. This part of Marx’s monetary theory is poorly understood, partly because of its awkward title. Money as money is a composite function which includes three particular functions: (i) means of hoarding (store of value); (ii) means of payment (means of deferred payment); (iii) world money (no equivalent in conventional theory). The aim of including these into one function was to capture their important common aspect, namely money’s ability to distance itself from the narrow exchange of commodities and confront the latter as a social force, the ‘sole form of value’.¹⁰

Marxian monetary theory thus stresses that money is not only a convenient facilitator of exchange; it can also influence the articulation of exchange from the outside, as it were. The third function is fundamental to Marx’s account of monetary crises, in which money as means of payment, typically supplied by banks, has to intervene unilaterally in order to resolve the payments impasse and allow exchange to proceed anew.¹¹

Underpinning the analytical sequence of the functions is the notion that the level of development of exchange rises as we proceed from one to three. The measure-of-value function is fundamental at the rudimentary level at which barter has just been superseded and monetary exchange introduced. Developed and regular operation of monetary exchange in turn relies on the means-of-circulation function. For the full emergence of the third function, monetary exchange has to be an integral part of social reproduction. Regular hoarding and regular debt creation must also exist as social phenomena. We can usefully indicate the correspondence of particular functions of money with the level of development by employing the term ‘dominance’. The dominant function in capitalist exchange – the most developed form of monetary exchange – is money as money, rather than measure of value or means of circulation.

This structured view of money’s functions has important consequences for the analysis of the forms of money. Marx himself hinted that the form which money takes is related to its function, but ‘just as true paper money arises out

9 Marx 1970, pp. 86–7.

10 Marx 1976b, p. 227.

11 Marx 1970, p. 146.

of the function of money as the circulating medium, so does credit-money take root spontaneously in the function of money as the means of payment'.¹² There is a definite order to the forms of money, which reflects the development of exchange and the elevation into dominance of different functions of money. It follows as a corollary that the several forms of money are not accidental but necessary products of the development of exchange.¹³

The forms of money actually analysed in detail by Marx were gold and fiat paper symbols of gold, i.e. money-proper, which arises independently of the credit system. He did not analyse the emergence of more advanced credit-based forms of money characteristic of capitalist exchange, such as banknotes and depository money. The reason for this deficiency is plain to see: the analysis of credit money presupposes the analysis of credit and of the credit system, which was not completed by Marx. Without attempting a complete analysis of credit here, important results about credit money can be derived by using Marx's own as well as other analyses of credit. Before this can be done, however, a closer look at Marx's analysis of the elementary forms of money is necessary.

The Characteristics of Money-Proper

a Circulation of Commodity Money

Marx's analysis of money and monetary circulation starts by largely abstracting from credit relations and the presence of capital.¹⁴ Money was examined by Marx in the context of simple commodity exchange, concentrating on the articulation of money and commodities in the market without worrying about the underlying relations of production. We will have to relax this assumption later. Credit, on the other hand, was thought of as a substantially more complex category than money, to be investigated after the introduction of fundamental capitalist relations, such as exploitation. This approach is not generally accepted by orthodox theory, which often treats credit as a more elementary category

12 Marx 1976b, p. 224. Performance of the relevant function is the mediating link between content and form of money. For Marx, the content of social phenomena can only be discovered by science through the process of abstraction in thought (1973, p. 101). In this respect Marx was a pupil of Hegel (1975, p. 33). The content of social phenomena, furthermore, manifests itself in several forms of appearance, which are other than the content itself. The several forms of money reveal how value representation relates to the functional requirements of different levels of exchange.

13 This view contrasts sharply with Keynes's exhaustive discussion of money forms (1930, ch. 1). For Keynes, money forms appear accidentally, especially as the state uses its arbitrary power to manipulate money.

14 See De Brunhoff 1976, pp. 19–25.

than money deriving the latter out of the impossibility of having credit relations at all times.¹⁵ Here we will briefly consider Marx's main conclusions on the original forms of money, which we have called money-proper. In the section on credit money we will introduce capitalist relations of production and credit and thus analyse the traits of credit money within a well-developed process of exchange.

Commodity money for Marx arises spontaneously out of the process of exchange. Gold is the final candidate, after a long historical process, purely because of its physical characteristics such as homogeneity, durability, divisibility, and so on. Two aspects of Marx's treatment are of special interest. First, measuring commodity values does not presuppose the physical presence of gold. Undifferentiated, ideal amounts of gold can express the values of commodities when barter is being superseded, thus allowing monetary exchange to be established. Second, gold coin is an advance in the form of money which arises when the monetary character of exchange is firmly established. Means of circulation is then the dominant function and this entails the actual physical presence of metallic money in transactions.¹⁶ The particular form of this physical presence is inevitably a social convention. As a social convention, circulating monetary gold needs social authority and the state is the natural source of the latter. Thus, for Marx, the adequate form of money, as far as the circulating function is concerned, is gold coin minted by the state.

Marx's subsequent analysis of monetary gold was premised on the division of such gold between hoarded and circulating quantities. For Marx, only a part of the entire amount of monetary gold in a country is in circulation while the rest is hoarded outside circulation.¹⁷ This approach is diametrically opposed to that of Ricardo and in the same tradition as Steuart, Tooke and Fullarton.¹⁸ Marxian monetary analysis sees the sphere of commodity exchange as a clearly demarcated area of social reproduction which money continuously enters and leaves. This is evidenced by the term 'channels of circulation' used by Marx.¹⁹ In the simplest possible analytical case, that of gold money, this translates into circulating gold and hoarded gold. As money moves in and out of the sphere of exchange, the monetary gold of a country is continuously re-divided between hoard and circulation.

15 See, for instance, Goodhart 1978, p. 3.

16 Marx 1976b, p. 226.

17 Marx 1976b, p. 235; 1978, p. 261.

18 See Ricardo 1951; Steuart 1966; Tooke 1959; Fullarton 1969.

19 For instance, Marx 1976b, p. 225.

The importance of the distinction between hoard and circulation is already apparent in its intellectual pedigree. If a country's gold need not remain permanently in circulation but can instead be hoarded, then the quantity of money in circulation need not be at all affected by purely exogenous factors, for example, by fresh gold discoveries. By the same token, the nomenclature of prices need not be immediately susceptible to changes in the quantity of money. Marx's well-known rejection of the Quantity Theory of Money presupposes the above-mentioned division of a country's monetary gold.²⁰

Given the distinction between hoard and circulation, two aspects completely characterise circulating gold: first, its path in the sphere of exchange; second, its quantity in circulation. Starting with the first, the path of circulating gold is completely haphazard. Once a commodity buyer has thrown gold into exchange, the coin continues to be used by subsequent buyers, constantly distancing itself from its point of entry.²¹ In a given period of time, its trajectory brings it in and out of circulation (hence out of and into hoards) several times as sellers turn into buyers. Equivalently, there is a large number of points of entry into and exit from circulation which gold money uses as it moves from hoard to circulation and vice versa. Whatever direction gold coin might follow, however, it is under no compulsion to return to the point at which it entered exchange at the beginning of the period. Its path has a random rather than a circular shape. This, as we shall see below, distinguishes money-proper from credit money which tends to return to its point of entry into exchange.

Turning to the quantity of money in circulation, Marxian monetary theory ascribes a definite hierarchy of significance to exchange phenomena. The fundamental movement in the sphere of exchange is the circulation of commodities, a necessary process for the material reproduction of society. The circulation of money is a subordinate movement, elicited by the primary exchange of matter in the form of commodities.²² Accordingly, the quantity of circulating money is determined endogenously, on the basis of commodity values, the value of the unit of money, and the velocity of money. As these parameters continuously alter the requisite amount of circulating money per period, monetary gold is re-divided into hoard and circulation, supplying gold to or absorbing it from the sphere of exchange.

20 See Marx 1970, pp. 160–5.

21 Marx 1976b, p. 210; 1970, p. 102.

22 Marx 1970, p. 103.

It is possible to determine precisely the amount of gold in circulation, given certain assumptions. So far we have assumed that gold is the means of circulation continuously enabling commodities to exchange. For completeness we also have to introduce gold as means of payment, i.e. part (ii) of money's third function. Means of payment – 'broad means of circulation' – covers all the instances of unilateral entry of money into exchange for reasons other than the narrow exchange of commodities, for example tax and subsidy payments. This allows us to postulate, more realistically, that some commodities are in every period exchanged on the basis of promises to pay rather than immediate money payment. Such basic commercial credit implies that at the end of the credit period, commercial debts have to be settled and a quantity of money has to enter exchange as means of payment. Thus in order to determine the total quantity of money in circulation, money has to be considered broadly, i.e. when it circulates commodities as well as when it unilaterally settles obligations after commodities have been circulated.

Two corollaries follow from the above. First, the total price of commodities actually circulated per period and the total quantity of money in circulation have no necessary relation with each other, since some commodities are exchanged on credit and not with money. Second, the existence of commercial credit implies a definite amount of obligations to pay which mature per period and need settlement. The credit system, of course, tends to gather those obligations and to cancel them against each other in a process of clearing. Nevertheless, it is highly unlikely that all commercial credit obligations will completely cancel out; hence, in principle a remainder will always necessitate the intervention of money.

Part of the quantity of money in circulation per period, therefore, enters in order to settle such obligations. It follows that the total quantity of circulating money and the total price of commodities circulated will be even more loosely related. Orthodox theory, by contrast, tends to assume fixed relations between these aspects of exchange, possibly influenced by the rate of interest, a category which has not appeared in Marx's analysis at this stage.

The main differences with the standard Fisherian and Cambridge approaches to the Quantity Theory identity are apparent. The latter do not distinguish between the functions of money in exchange and thus postulate an unwarranted degree of closeness between output price and money per period. Furthermore, within the Marxist framework the velocity of money in circulating commodities and in making payments is determined by very different factors. It is true that nothing stops the same unit of money from alternating between the functions; still, velocity in the former tends to be determined by factors such as means of communication and transport, consumption

habits, seasonal variations of output, and so on.²³ Velocity in the latter depends primarily on the efficiency of the credit system in facilitating the advance of credit, clearing and the making of payments.²⁴

Given those qualifications, Marx's version of the identity for the quantity of money in circulation is:²⁵

$$(1) \quad M \equiv TP_1/V_1 + TP_2/V_2 - n(A_1 \cap A_2)$$

where

M	the quantity of circulating gold units
TP_1	total price of commodities actually circulated with money, i.e., the ratio of commodity values to the value of the unit of money
TP_2	total price of maturing payment obligations actually settled with money
V_1	velocity of money in commodity circulation
V_2	velocity of money in making payments
A_1	set of money units employed in commodity circulation
A_2	set of money units employed in making payments
$n(A_1 \cap A_2)$	the number of money units alternating between the first and second functions

If the specific character of credit intervention in exchange were ignored and all of money's interventions in exchange were considered simply 'transactions', the above would collapse into a form similar to the usual Fisherian formula:

$$(2) \quad M \equiv TP/V$$

where

²³ Marx 1973, p. 187.

²⁴ Conventional economic theory does not distinguish between the two concepts of velocity. Indeed, the legacy of the Cambridge tradition has resulted in treating velocity as an extremely nebulous concept, the ratio of total output price to the total money stock, the latter 'somehow' facilitating the realisation of the former, as, for instance, in M. Friedman 1971, p. 146. It should not therefore be surprising that to explain increases in the money stock at rates faster than those of output price economists often simply say that velocity has fallen. For a comment on this, see B. Friedman 1988, p. 58.

²⁵ Marx 1976b, p. 237.

<i>TP</i>	the total price of 'transactions', i.e. money-exchanged commodity values plus value transferred in payments divided by the value of the unit of money
<i>V</i>	undifferentiated money velocity

There are two main reasons for considering (1) superior to (2). First, it explicitly acknowledges the impact of credit on the circulation of output and hence rejects simple inferences about total output price and money quantity. Output is also exchanged without the intermediation of money. Second, it recognises the qualitatively different factors which influence the velocity of money in its different functions.

b The Character and Circulation of Fiat Money

Marx's analysis of fiat money – typically paper symbols of gold – was unrelated to banknotes and their evolution. Banknotes, as we shall see below, are credit money, qualitatively different from fiat paper money. This is not generally appreciated in Marxist economic theory.²⁶ Marx's analysis of fiat money referred to money issued by the state independently of the credit system and in direct symbolisation of the precious metals. His 'symbols of gold' are fiduciary money similar to Knapp's 'chartalist' money, but unlike Knapp, Marx did not treat these symbols as the creation solely of the arbitrary powers of the state.²⁷ A typical instance of such money was the French Assignats. Marx's conclusions about the potential of such money to create hyperinflation were not, by the same token, immediately applicable to the circulation of the modern banknote. His schema of hyperinflation, which we will consider very briefly below, has to be adapted to the peculiarities of credit money before it can begin to give insights into modern hyperinflations or, indeed, persistent high inflations.

For Marx, symbolic money arises necessarily out of the process of metallic circulation. It is well-known that gold coins tend to lose part of their gold content because of abrasion and fraud.²⁸ Their value content, therefore, tends to be below their nominal value, a fact that has troubled merchants since time immemorial. To put it differently, the function of means of circulation automatically turns gold money into a symbol of itself. Thus exchange opens by itself the way for the state to intervene and issue proper symbols of metallic money such as base-metal coins and fiat paper money.²⁹ Symbol money, there-

²⁶ For instance, Mandel 1968, ch. 8.

²⁷ As in Knapp 1924.

²⁸ See, for instance, Kindleberger 1984, pp. 19–31.

²⁹ Marx 1970, p. 111.

fore, corresponds to the function of means of circulation and is unrelated to the intervention of the credit system in exchange.

In this chapter we will concentrate on paper money rather than cheap coins, since the peculiarities of fiat money circulation can be completely demonstrated by the former. In contrast to gold, fiat money enters the sphere of exchange at a single point. That typically is the point at which the state pays for civil service salaries, goods, services, subsidies and its other consumption demands. Once in exchange, fiat money follows a path as haphazard as gold, being continually used by its original receivers for purchases, payments, and so on. It thus tends of its own accord to move away from its single point of entry in exchange. It could potentially return to its issuer, the state, if it were explicitly demanded that taxes be paid in such money or if bonds or other financial instruments were bought with fiat money as was done for the Assignats.³⁰ Its return to its point of issue has to be artificially instigated by the state, proof of its own tendency to follow a random path.

Further distinguishing it from gold, fiat money is totally worthless outside circulation. It has social worth as it facilitates exchange, but outside that sphere it simply turns into valueless 'scraps of paper'.³¹ It follows immediately that fiat money cannot be hoarded outside circulation, as gold incessantly is. Together with the lack of any tendency to return to its point of entry in exchange, this means that symbolic fiat money tends to be trapped in the sphere of exchange.

For Marx, the propensity of fiat money to generate hyperinflation results from its tendency to remain in circulation. If, other things being equal, the state persevered with the issue of symbol, metallic money would be expelled from circulation and the quantity of symbol would balloon for lack of an exit. Yet the quantity of precious metal actually symbolised would be unrelated to the expanding quantity of fiat money, and would actually be determined by identity (1). Therefore individual pieces of fiat money would tend to symbolise less and less of the precious metal, as indeed happened to the Assignats.³² The counterpart of this tendency would be ever increasing commodity prices. It is conceivable, but has to be demonstrated historically and concretely, that the state will find itself in a vicious circle, forced to print more and more money to cover its expenditures thus fostering still higher price rises.

30 See, for instance, Levasseur 1894.

31 Marx 1970, p. 119.

32 See, for instance, Hawtrey 1918.

There is an evident, but superficial, similarity of this account with the usual Quantity Theory view. According to the Theory, exogenous increases of the supply of money result in the intensification of the eagerness to spend, hence they boost demand and influence prices and income.³³ Within the Marxian problematic, however, hyperinflations are unrelated to the demand for commodities. Instead they result from money having to continue to assign correct relative prices, given unchanged underlying commodity values and despite its augmented quantity. The fact that a gold coin, other things being equal, is symbolised by, say, twice as many pieces of paper as before simply translates into a blind and automatic tendency to double prices in order to retain the nomenclature of relative prices. To put it differently, on the one hand, the state appears to possess the ability to determine exogenously the quantity of circulating fiat money. Yet, on the other hand, the quantity of the necessary circulating medium is endogenously determined by the process of circulation. The contradiction is resolved through price inflation which reasserts the dominance of the endogenously determined amount of the circulating medium. For Marx, fiat money hyperinflation results from the very endogeneity of monetary circulation. Naturally, this cannot take place instantaneously. It is, rather, a gradual process of one commodity forcing the change onto the price of another through their contact in exchange, starting with the commodities whose path in exchange is closely connected to the source of fresh additions to the quantity of fiat money. Such commodities could conceivably vary from the consumption goods of state employees to armaments.

The last issue to be discussed in this section has already been posed by De Brunhoff:

The analysis of paper money is not clear in *Capital*. Paper fiat money is without any doubt money. But it is hard to tell whether it is ‘false money’ as Pareto was later to say, or true money whose monetary role is entirely derivative from that of gold.³⁴

De Brunhoff’s distinction between ‘true’ and ‘false’ money, however, is misplaced. The problem for theory is not to grade the social validity of the various forms of money, with gold as the benchmark. It is, rather, to demonstrate the path of evolution of the various forms of money, and to examine how adequately these forms correspond to money’s functions. Fiat money –

33 As is typically found in Friedman 1959.

34 See De Brunhoff 1976, p. 35.

it should be stressed again that banknotes are qualitatively different from such money – results from stretching the function of means of circulation to its limits, and in this sense it is as ‘true’ a form of money as gold. Nevertheless, fiat money presupposes no credit relations; as a result it arises at a rather low level of exchange where the credit system plays no overwhelming role. The development of the credit system supersedes fiat money by generalising the use of credit money, as we shall see below. By the same token, fiat money could also emerge if the credit system were extraordinarily shaken, e.g. in time of war. The limits of its social adequacy for the circulating function are demonstrated precisely in the tendency to hyperinflation, a testament to the inherent instability of such money as well as the pathological way in which money’s ability to express value is restored by the process of exchange.

II The Derivation and Characteristics of Credit Money

The Impact of Credit on the Forms and Functions of Money

We have so far considered the elementary forms of money-proper, based on Marx’s own analysis. In this section we will extend this analysis to include more advanced and, it will be argued, specifically capitalist forms of money. The latter we will call credit money to indicate the determining influence of credit relations on the character of capitalist money. Two forms of credit money are of particular importance: banknotes, and deposit money. It is contended here that these forms of money and the functions which they perform assume their specific character as a result of two trends in capitalist exchange: (a) the generalisation of commercial (or circulation) credit relations; (b) the generalisation of monetary (or banking) credit relations. As we shall see, these relations materially influence the endogenous character of the monetary mediation of capitalist exchange.

The issues of credit and the credit system are by no means uncontroversial in Marxist economics.³⁵ However, it will suffice for our purposes simply to distinguish between commercial and monetary credit. The former, which we have already introduced, is the advance of commodities against a promise to pay rather than money. The latter is the lending of money with a view to earning interest. Regular advance of monetary credit is the special province of interest-bearing capital, i.e. capital specifically lent and borrowed and distinct from industrial and merchants’ capital.³⁶

35 See, for instance, Harris 1976 and Fine 1985–6.

36 For further analysis, see Hilferding 1981, ch. 5.

Two further premises, well established within Marxist literature, are necessary at this point. The first is that the specificity of capitalist exchange derives from the fact that the money and commodities continually exchanging within it are also forms of capital; hence their interaction contains the realisation and distribution of surplus value (more accurately, profit).³⁷ The second is that the participating units of capital are under external competitive pressure to shorten their circulation time (time spent in the sphere of exchange), to realise their surplus value and to start new circuits as rapidly as possible.³⁸ In addition to the above, it was already stated that commercial credit connects the circuits of different capitals without the intervention of money. Surplus value is realised and production restarted against promises to pay, i.e. without the need for prior possession of money. Thus, circulation time is reduced and the completion of the circuits of individual capitals is accelerated.³⁹ Marx identified the speeding up of the circuits of individual capitals, and thus of the total social capital, as the social role of commercial credit in capitalist exchange, such credit becoming a condition for rapid accumulation.⁴⁰

The resultant generalisation of commercial credit profoundly affects the functioning of money in capitalist exchange in two distinct but related ways. First, commercial credit directly replaces money in transactions with mere promises to pay and thus negates money's role as means of circulation. It follows that the latter function loses its significance in capitalist exchange commensurately with the permeation of such exchange by commercial credit relations. Second, the existence of commercial debts immediately poses the need for debt settlement. In general, when commercial debts mature, despite widespread cancellation against each other, some money will have to enter exchange to settle residual obligations. Thus, as commercial credit permeates exchange, the function of means of payment is propelled into dominance. So our first result is that in capitalist exchange, in contradistinction to simple exchange, there is a trend for money to settle debts rather than to circulate

37 See Weeks 1981, ch. 2.

38 Marx 1978, ch. 14; see also Fine 1975, p. 47.

39 Commercial credit relations also emerge in the expenditure of workers' income, i.e. hire purchase, buying on tick; in American usage, the instalment plan. Since, however, we are not concerned with the impact of credit on particular areas of exchange (such as the private consumption of workers), we would gain in clarity by assuming that such relations exist solely between capitalists, i.e. in the general exchange of capitals. This is analogous to Marx's assumption that interest-bearing capital is advanced solely between capitalists. For exposition on the latter, see Fine 1985–6.

40 Marx 1976b, p. 567.

commodities. As we shall argue below, the gradual elevation of means of payment into the dominant function of money corresponds to the emergence of specifically capitalist money, i.e. credit money.

The second trend that is important for our purposes is the generalisation of monetary (banking) credit relations in capitalist exchange. Our analysis departs from the systematic generation of hoards of money as individual capitals traverse their circuits. Such hoards result from retained profits, amortised fixed capital, the shortening of circulation time, and so on.⁴¹ Together with personal savings, such stagnant money provides the raw material and the potential for the growth of banking. For Marxist monetary theory, a defining aspect of banking is the collection of society's hoarded money, its transformation into interest-bearing capital, and its subsequent advance as monetary credit. In principle, borrowing capitalists use the funds borrowed to expand existing circuits and to start new circuits of capital, or simply to meet payment requirements. The recycling of these funds augments the accumulation of the total social capital. The function of money central to this process is the formation of hoards which provide the basis for monetary credit. To the degree to which the real accumulation of capital fosters the growth of banking, the function of hoard formation becomes increasingly dominant. We will consider this in more detail later.

The emergence of banknote and deposit credit money is closely connected to the dominance of the payment and hoarding functions in capitalist exchange. We will first consider banknote credit money and then turn to deposit money. The starting point here is the constant need of capitals to possess means of payment for debt settlement. This need brings functioning capitals to banks as controllers of money for loan. Now, a major aspect of commercial credit is the generalised use of bills of exchange (written drafts on commercial debtors), the term used here in a generic sense to denote all forms of commercial IOU. At the simplest level, functioning capitalists find the requisite means of payment in the form of banknotes supplied by banks against the discounting of bills of exchange. Credit money emerges as promises to pay are made by the banks (i.e. as claims by the public on banks) which are issued by the banks for use as means of payment. For the banks this advance is in reality the advance of their interest-bearing capital, commanding the payment of the rate of interest as expressed in the discount rate. Thus, treated as abstractly as possible, credit money in the form of the banknote emerges at the point at which commercial credit is articulated with monetary credit.

41 See Hilferding 1981, ch. 5.

A methodological comment is necessary here. It is not particularly profound to observe that the modern banknote is not the product of discounting bills with banks. This, however, does not at all imply that the above derivation is an irrelevant exercise in economic history. The method of Marxist economics is to demonstrate the contradictory nature of economic categories at their purest and simplest level. In the case of banknote credit money, its emergence has to be understood as the outcome of the fundamental operations of the credit system, and not as a result of arbitrary state-controlled central bank intervention in the issuing of money. Thus we have to assume conditions of competitive issue of credit money by several banks. If we cannot analyse the fundamental traits of credit money under such conditions, we certainly cannot analyse them under the more developed conditions of central bank monopoly in banknote issue. Below we will examine those traits and consider some of the implications of state intervention in the issuing of credit money.

Characteristics of Credit Money Circulation

In Section 1, we considered the path and quantity of gold and fiat money in circulation, given the dominance of the function of means of circulation. Below I will argue that the determination of these aspects for banknotes – and deposit money – is qualitatively different. Perhaps the most important result is the greater complexity of the endogenous character of the mediation of exchange by credit money.

At the simplest level, that of competitive issue of banknote credit money, a multitude of points of entry into exchange exists as banks perform their customary discounting operations. Once in exchange, credit money follows a circular path, contrary to money-proper. To put it differently, credit money tends to return to its points of entry and regularly to vacate the sphere of exchange. Two factors induce this type of movement. First, the maturing of debts owing to banks by the public, such as bills, other IOUs and outright loans. The continuous settlement of such debts ensures the equally continuous return of part of the circulating banknotes to the banks per period. This type of movement was elegantly summarised by Fullarton as the ‘law of the reflux’ of the banknote.⁴² Secondly, banknotes also return to their issuers as hoards

42 See Fullarton 1969, pp. 67–8. Fullarton’s law is often thought of, rather anachronistically, as another version of the ‘real bills fallacy’, and as such it has been treated with relative scorn in the literature; for example, Morgan 1943, pp. 131–2. This is not the place to discuss the celebrated ‘fallacy’; however, as far as I am aware, none of the subsequent researchers into the real bills doctrine has ever attempted to disprove the existence of the reflux of credit money. Various theorists have indeed argued that the reflux is no guarantee that the

of money are created across the sphere of exchange. The gathering of hoarded money by banks tends to bring banknotes back to the banks to be deposited.⁴³ In this way claims held against banks in the form of banknotes are transformed into deposited money, a different type of claim on banks. The result of those two tendencies is that the path of credit money in exchange is circular, a characteristic which it retains under central bank control of its issue. The circular path of credit money has only been hinted at by Marx.⁴⁴ Its circular path distinguishes the banknote from gold, which follows a totally random path in exchange.

As regards its quantity in circulation, banknote credit money is again distinct in its properties from money-proper. At one remove, its quantity per period is determined by the antithetical processes of issue and withdrawal from exchange. In contrast to gold, however, these flows are not determined directly and solely by internal exchange factors – such as commodity values and money velocity – which constantly attract and repel money from hoards. Rather, the flows are also the residual of credit operations that take place as real capital accumulation proceeds. The endogenous factors that determine the quantity of such credit money, therefore, are substantially more complex than those influencing the flows of metallic money and their complete study belongs to credit theory.

Purely as an indication of the type of endogenous factors involved, note that the size of credit money outflow depends on the availability of commercial credit and the latter's variability over the trade cycle. It also depends on the cyclical behaviour of bank advances for discounting. By the same token, the size of credit money reflux depends on the regularity of industrial sales which allow

quantity of banknotes in circulation will not become excessive if, for instance, banks issue banknotes much faster than the rate at which the notes return to them; for example, Viner 1955, p. 237. That may or may not be so; it does not, however, in the least invalidate the law as the clearest theoretical statement of the qualitative difference between gold and credit-money circulation. This dimension of Fullarton's law has been ignored in the literature precisely because the theorists tend generally to disregard the qualitative differences among the forms of money.

43 There is no analogy with fiat paper money as regards the hoarding of banknotes. Lack of own value prevents fiat money from forming durable hoards outside exchange and it might appear that this also holds for banknotes. The crucial difference, however, is that banknotes are already claims on banks, and thus need a mere change of form in order to turn into a hoard. The participants in exchange do not create money hoards in banknotes as such, but merely use the banknotes to establish claims of a different form on the hoards held by banks.

44 See Rosdolsky 1977, p. 144, n. 11.

debt settlement and hoarding with banks. This again is a factor that varies with the trade cycle. In addition to trade-cycle considerations, historical and institutional factors also affect the flows of credit money. The extent of penetration of exchange by the banking system and the latter's efficiency in clearing debts and gathering hoards are historically conditioned, and cannot be assumed at the outset. Above all, credit money is still a social convention and as such admits of state interference with its flows. Legislative, administrative or purely financial intervention in the operations of the credit system affect the determination of its circulating quantity. Influences such as the above are unrelated to the internal logic of exchange and are substantially broader than the latter. For this reason, the quantity of credit money in circulation does not admit of as precise a theoretical determination as the one we have given for gold. Credit money is certainly not fiat money, permanently trapped in exchange. Nevertheless, the magnitude and regularity of its flows are conditional on the articulation of credit with real accumulation and on the institutional development of the credit system.

The question of the link between the flows of credit money and the rate of interest arises at this point. In orthodox economic theory, endogeneity of the supply of money is usually taken to mean its functional dependence on the rate of interest. It should be noted that for Marx – and Ricardo⁴⁵ – determination of the quantity of money-proper is unrelated to the rate of interest. The rate of interest is determined by the movement of interest-bearing capital, the analysis of which has to be done at a considerably less abstract level than that of monetary circulation. For credit money, however, the issue of the link with the rate of interest emerges precisely because credit money is organically connected to the movement of interest-bearing capital.

There are two important points to be made here. First, as far as the general features of credit money are concerned – primarily its circular path – the rate of interest is analytically irrelevant. These features are derived by reference to the elementary properties of credit, i.e. advance and repayment. Second, the analysis of the connection between the rate of interest and the flows of credit money has to be informed by Marx's rejection of the concept of a 'natural rate' of interest, and by his argument that the rate of interest is determined entirely by the contingent forces of demand for and supply of interest-bearing capital.⁴⁶ The structural determinants of the latter – such as the tendency to hoard, the movement of the rate of profit, the cyclical behaviour of commercial credit – lie

45 See Ricardo 1951b.

46 See Marx 1976b, p. 478.

within the process of real accumulation and have to be analysed first. For our purposes, the resultant movement of interest-bearing capital is also, and at the same time, the creation of credit money. Thus, at the start of the analysis, the rate of interest and the flows of credit money should be seen as simultaneously determined by prior factors within real accumulation, and not as the former determining the latter. What, therefore, matters at this level of abstraction is to indicate factors endogenous to the process of accumulation, such as the ones already mentioned above, which generally influence the supply of and demand for credit money. The rate of interest need not appear at all in the analysis.

An important consequence follows from posing the issue of credit money flows in these terms. In every period the sphere of exchange faces a definite requirement for circulating money according to identity (1). Credit money might meet all or part of this, together with other circulating money. Yet the quantity of credit money that in actuality finds itself in circulation is also determined by credit operations, in a manner quite independent of narrow internal exchange factors. Whether this quantity achieves regularity in its determination, and if so at the desired level, cannot be generally guaranteed at the outset. Its proportionate relationship to gold, and hence the stability of the nomenclature of prices, is constantly re-established by the credit system. Institutional weaknesses of the credit system, for instance in clearing debts and in vetting discounts, could arbitrarily alter the circulating quantity. Plain state tampering with issue and reflux could have the same result. Unscrupulous issue of credit money and problematic reflux would swell the amount in circulation and result in price upsets similar to those for fiat money. Credit money, in other words, is inherently unstable in its relationship to the gold it replaces, based as it is on the volatile integration of credit with real accumulation, as was fleetingly suggested by Marx.⁴⁷ This instability exists even without state interference in the flows of credit money; however, careless state intervention – for instance in order to pay for state consumption – could potentially increase it. For countries at a lower level of capitalist development, with substantial budget deficits and heavily reliant on extensive banknote circulation in particular, regular price inflation might result from interfering with the circulation of credit money.⁴⁸

47 See Marx 1973, p. 131.

48 Latin American inflations of the order of several hundred percentage points annually, not necessarily leading to exponential increases of the price level and collapse of the monetary system, could be profitably studied from the viewpoint of state-induced irregularities in the supply of credit money.

The Further Development of Credit Money

Two related issues have to be tackled at this point in order to establish the relevance of the preceding analysis for modern credit money. First, the analysis has to be able to explain the increasing centralisation of the issue of banknote credit money. The significance of the monopoly of banknote issue by the central bank, closely monitored by the state, has to be examined. Second, we have to discuss the increasing predominance of deposit credit money in terms of the characteristics of the latter and in terms of the reduced role of the banknote in advanced capitalist exchange. We cannot hope to analyse these fully, but we can sketch the pattern of development and point out areas for future work.

a Central Bank Monopoly of Banknotes

In the vein of the preceding analysis, the emergence of such monopoly has to be explained as the result of banknote circulation processes themselves, rather than as an arbitrary event. The fundamental cause of the emergence of this monopoly is the contradiction in banknote circulation between the universality inherent in means of payment, and the particularity of private banknotes. On the one hand, the means of payment have adequately to transfer value among capitalists at all times and all places. As means of payment, money meets obligations by appearing in exchange from without; its actual presence is the all-important thing. Money as such has to be received in order for debts to be settled finally; hence money has to have a general rather than a particular aspect. To be adequate to the social task of making payments, money as money has to be universally acceptable. On the other hand, the private banknote invariably has a narrow ambit; its generality is circumscribed by limited geographical circulation and its necessarily doubtful acceptability outside each bank's immediate circle of economic influence. The private banknote is, after all, a mere private promise to pay by a bank, the creditworthiness of which cannot be immediately general. Its narrowly local character, therefore, cannot but continually frustrate its attempt to play a general role in exchange. A contradiction arises between the required generality of the banknote and the narrow ambit of the private banknote.

Capitalist exchange seeks a practical resolution to this real contradiction. The practical resolution is a single banknote which can transcend narrow private limits and become the universally acceptable means of payment. Seen in this manner the process of exchange has to turn the issue of one bank into the general means of payment. It is clear that this bank should have exceptional creditworthiness, which will give its promises to pay general acceptability. Thus, Bank of England notes were the recognised means of payment in the

London markets – a privilege afforded in the Bank's original Charter – as well as in the industrial areas of England, long before the enactment of its formal monopoly of issue and its gradual transformation into a central bank. The process of exchange by itself tends to isolate one bank's promises to pay, and this opens the way for the state to back those promises with its own creditworthiness. State backing of banknote issue overcomes the banknote's particularity and turns it into a general means of payment.

The contradiction in the circulation of the private banknote becomes sharply apparent during monetary crises. For Marx, such crises are characterised by the paramount need to settle debts and to pay for commercial obligations; hence means of payment becomes money's dominant function.⁴⁹ The private banknote continually faces the limits of its narrow acceptability as it attempts to perform its crisis function. It thus forces exchange to seek one banknote as the universal means of payment. In all the crises of the nineteenth century, the banknotes of the Bank of England, rather than those of other banks, were the absolutely necessary means of payment, which decisively resolved monetary panics.⁵⁰ Monetary crises act as levers for generalising the acceptability of one banknote and strengthening its role as the universal means of payment. This makes it easier for the state to give its backing to one banknote and centralise its issue.

It is apparent at this point that the theory of modern credit money overlaps greatly with the theory of central banking which is not our concern. We simply want to isolate the chief cause of the rise of central bank control over credit money, namely, the tendency of exchange to secure the universality necessary to credit-generated means of payment. It should, nevertheless, be emphasised that central banks which provide such money do not emerge in an unproblematic and simple fashion. The process is laden with political as well as economic complexities and can be agonisingly slow, as in the cases of the USA and Italy.⁵¹

49 See Marx 1976b, pp. 235–6.

50 Two instances will suffice to establish this. First, the story has often been told that in the crisis of 1825 the worst was avoided only when an amount of £1 notes was accidentally discovered in the Bank's vaults. The notes provided the absolutely necessary means of payment and ameliorated the panic. The plausibility of this account has, however, been disputed; see Fetter 1965, pp. 114–15. What is beyond doubt is, second, that the crisis of 1847 threatened to reach disastrous dimensions precisely because the Act of 1844 prevented the Bank from issuing its banknotes in the necessary amounts. As soon as the Act was suspended, and even without the actual issue of banknotes, the panic abated.

51 On Italy, see Sanucci 1898.

How easily particular countries succeed in elevating the issue of one bank into the general means of payment can only be answered concretely and historically.

Abstracting entirely from the effects of the emergence of deposit money, and very schematically, state control has two significant effects on banknotes. First, the points of entry and exit from circulation are reduced to one, the central bank. The flows of credit money begin and end at the central bank and they are given regularity through the co-operation of the banking system. The reflux of banknotes back to the central bank, in particular, becomes one of the regular operations of the banking system as banknotes are concentrated by individual banks and channelled back to the central bank in a generalised system of clearing. The immediate result of this is a degree of stability and regularity in the determination of banknote quantity, closely monitored by the central bank.⁵²

Second, state intervention enhances the possibility of tampering with banknote flows. Direct state interference with the issue of banknotes makes it more likely that the quantity of credit money would be completely out of proportion with the gold it replaces, thus leading to upsets in the nomenclature of prices. This tendency will inevitably be more pronounced in countries where banknotes are a substantial part of the money stock, and where the state runs budget deficits that encourage it to tamper with credit-money issue. Thus state intervention, on the one hand, strengthens the universality of the banknote and, on the other, increases its inherent potential instability.

b Deposit Money

We can now turn to the dominant function of money in the deposit system, and indicate some guidelines for future work. It is argued that deposit money corresponds to the elevation of the hoarding function into dominance. The first step is to show that banknote credit money already contains the possibility of being supplanted by entirely ideal claims on banks, i.e. deposits. Subsequently, it is shown that changes in the articulation of commercial with monetary credit, based on the expansion of branch banking, foster the establishment of a deposit system.

Transactions facilitated by banknotes are essentially premised on the ideal presence of the body of the universal equivalent. When banknotes intervene in exchange, possession of the universal equivalent is transferred between the participants but what actually changes hands is the valueless banknote,

52 See, for instance, BEQB 1978.

a mere promise to pay by a bank, even if it is the central bank. Contained potentially within the transaction is the possibility of an equally ideal transfer of the universal equivalent but without the simultaneous transfer of corporeal promises to pay. In principle, the claim on the bank could be transferred without it necessarily taking the banknote form. However, realisation of this possibility in a socially significant way does not follow directly from the logic of the transaction itself. For the possibility to be realised and the banknote to be superseded, the banking system has to grow sufficiently to propel the hoarding function of money into dominance.

Hoarding of money is a crucial aspect of Marx's monetary theory. Unlike Keynes, Marx treated hoarding not as a residual of individual consumption choices, i.e. as individual saving, but as a systematic aspect of capital accumulation.⁵³ Two examples will suffice to demonstrate the point. Hoards are structurally formed when capitals realise profits in excess of what is required for immediate reinvestment. Hoards are again formed when the circulation time of capital is reduced, releasing funds from particular circuits of capital.⁵⁴ What is important for our purposes is that hoards provide the basis for monetary credit and for the growth of the banking system. As has already been said, banks turn hoards into interest-bearing capital, and so return the money to real accumulation.

Viewed from this standpoint, money deposits are claims against banks which are generated as money hoards are concentrated and lent out.⁵⁵ Now a deposit *system*, i.e. a general systematic process of collecting and utilising temporarily stagnant money, relies on the expansion of branch banking as a precondition. Banks have to be able to reach extensively in the sphere of exchange in order to sustain a general system of collecting hoards. Precisely this development allows the supersession of the banknote as the chief means of payment in advanced capitalism. Given the existence of systematic hoard collection, it is possible to transfer money ideally and without the passage of bank promises to pay. Instead payments can be made by transferring the claims on banks directly as entries in different bank accounts. The immediate corollary of this is that banknotes, indeed all circulating money, are displaced from the sphere of exchange. In terms of the functions of money, the circulating functions are diminished and the hoarding function becomes dominant. Depository money,

53 See De Brunhoff 1976, pp. 38–41; see also Keynes 1930, ch. 3 and 1973, ch. 15.

54 See Marx 1978, p. 355.

55 The term 'hoard' is used to stress the prominent function of money in this connection. It is always interest-bearing capital that is concentrated and lent out, i.e. the transformed hoards.

as money 'stock' now, corresponds to this dominance. The potential for this development has been apparent since the 1840s,⁵⁶ but it was realised only when the actual growth of the banking system established the primary role of the hoarding function in the capitalist economy.

Equally, however, the gradual supersession of banknotes by the deposit mechanism is related to changes in credit practices. Put schematically, the articulation of commercial with monetary credit undergoes a transformation which affects the role of the banknote. The decline of the bill of exchange is well documented and its classic explanation has been explicitly based on the rise of branch banking.⁵⁷ The extension of the system of hoard collection is accompanied by a shift in the articulation of commercial and monetary credit away from discounting bills and towards overdrafts and direct loans by banks. How swift and effective the shift is depends on the sophistication and depth of the banking system. The necessary corollary of this is that the entry of privately created credit money into circulation gradually loses its significance. Payments can now be effected, for example, *via* overdrafts; this pushes the increasingly state-controlled banknote into second place relative to the deposit mechanism.

What are the implications of the above for the fundamental traits of modern deposit money? Some important pointers for the direction of research can be established here. First, since depository money is credit money generated by the advance of banking credit, the study of the determination of its quantity would benefit from the conclusions we have already drawn on the quantity of banknote credit money. Endogenous factors, such as the cyclical behaviour of monetary and commercial credit as well as historical and institutional realities, require prior analysis. Perhaps the most fundamental of these is the systematic structural tendency of capitalist accumulation to generate hoards of money. Furthermore, the issue of the link with the rate of interest has to be dealt with much more complexly than by merely including the latter as an argument in the money supply function. Precisely because the quantity of credit money is subject to a more complex determination than money-proper, issues such as the money multiplier and its instability require prior study of the articulation of credit with the real accumulation of capital. Second, the concept of the path of depository mediation (insofar as a 'path' could be established), and that of the character of the velocity of such money, require closer attention. The advance and cancellation of deposit money, i.e. the cyclicity of its movement in exchange, have not been adequately studied in the literature. It is probable that

56 See Fullarton 1969, ch. 2.

57 See King 1936; see also Nishimura 1971.

the systematic linking of these to the advance and repayment of commercial and monetary credit would yield important conclusions with regard to the quantity of deposit money.

As regards the modern banknote, a fundamental change in its character follows the rise of depository money and hoarding into dominance. It is immediately evident that the banknote no longer bridges commercial and monetary credit and has been supplanted as the chief means of payment by the deposit mechanism. Banknotes in Britain, for example, have been reduced to the function of simple means of circulation, facilitating primarily the exchange of commodities in the area of expenditure of private income. This is established by the multiplicity and small size of transactions mediated by banknotes, together with the strong seasonality in banknote circulation which reflects the seasonal pattern of private consumption.⁵⁸ The entry of banknotes into contemporary capitalist circulation, when not interfered with by the state, is occasioned by the expenditure of private income. Banknotes enter exchange according to how money is demanded for purposes of income realisation; hence, their entry tends to be demand-determined. Furthermore, the reflux tends to take place as hoards out of private income are created, and not as debts to banks are paid. Hoard creation by individuals out of private income brings banknotes back to the banks to be transformed into depository claims. The banking system concentrates the returning flows of credit money, turns them into a single, regular flow and directs the latter to the central bank and out of circulation. The upshot of the rise of depository credit money is to attenuate the links of the modern banknote with the advance and repayment of credit.

The Role of Gold in Advanced Capitalist Exchange

It has so far been argued in this chapter that Marxist theory provides a systematic basis for explaining the changes in the form of money, and that gold is a crucial original form of money. At this point we should briefly consider the role of gold as capitalist exchange develops.

One immediate result from the domestic rise of circulating credit money is to displace gold into hoards outside the sphere of exchange. Depending on the degree of development of the banking system, the gold hoards will tend to be concentrated by the latter as the hoard collector *par excellence*. Hoards of gold were seen by Marx as having both a domestic and an international role.⁵⁹ The domestic role of the gold hoard is to bolster the credit and monetary system

58 See, for instance, BEQB 1982.

59 See Marx 1976b, p. 243; see also Marx 1970, p. 150.

in time of crisis: gold is always acceptable as means of payment; hence, it can always resolve a monetary crisis. However, the development of credit money and its further evolution into deposit money, based on growing sophistication of banking (central banking in particular), reduces the domestic significance of gold. Marx had already noted that this was the case in Scotland in contrast with England.⁶⁰ A stable banking system can increasingly provide its own means of payment in a crisis, either as banknotes or as depository credits. The gold hoard, as a result, is reduced to its external world market role.

In the world market, Marx argued, money functions as ‘world money’, as the internationally acceptable means of payment. This has to be gold, since the national peculiarities of money have to be shed in the world market. Marx’s view of gold drains, as a result, was typically as flows of ‘world money’, invoked by payment obligations abroad which would not admit of credit settlement in the normal operation of the foreign exchange markets.⁶¹ Gold had to be paid by countries to settle balance of payments debts, to buy urgently required food supplies, to fight wars, and so on, functions particularly pronounced in times of crisis. The interesting point for our purposes is that, according to Marx, countries participating in the world market had to have a gold hoard, the size of which indicated a country’s ability to face up to the fluctuations of the world market and to protect its political power.⁶²

The question of the residual role of gold in capitalist exchange thus becomes a question about the evolution of the international hoards of countries participating in the world market. A parallel can usefully be drawn with the evolution of gold hoards in the domestic markets. The world role of gold depends inversely on the internationalisation of the credit system and the ability of banks to provide depository money across frontiers. Insofar as credit-generated means of payment proliferate internationally, the gold hoards will tend to be used only when the credit system has been severely shaken and money as money has to appear. This will typically happen in a major commercial crisis, a war, a natural disaster, and the like. A diminishing role for gold flows and the increasing confinement of the metal in international hoards will be the result. Furthermore, the distribution of gold hoards internationally will reflect the shifting weight of different nation states in the world market, and will retain a strong political character.

60 Marx 1973, p. 133.

61 See Marx 1981, ch. 35.

62 The social and political power of money, an extension of its third function of money as money, was emphasised by Marx (1970, pp. 127–37). Mainstream economic theory, by comparison, almost wholly ignores it.

Conclusion

The main theoretical concern of this chapter has been the qualitative differences among the various forms of money. We related these differences to the functions that money is primarily called upon to perform in exchange. More specifically, economic theory usually assumes that money is anything that functions as means of exchange. The importance of money's circulating function cannot be denied, but in developed capitalist circulation, the paying and hoarding functions are more significant. Whether money is primarily metal, banknotes or deposits depends on which function is dominant. Thus banknotes and deposits correspond to the functions of means of payment and means of hoarding, respectively.

The theory of money proposed by Marx provides a framework for systematic analysis of the forms of money. Within this framework, the functions of measure of value, means of exchange, means of payment and means of hoarding play the dominant role at different levels of the development of exchange. With this in mind, a Quantity of Money identity was derived for the fundamental form of money, i.e. gold. This identity is distinct from the Fisherian and Cambridge versions in that it recognises the different endogenous influences on the circulating and paying functions of money as well as the different velocities of money in the performance of the respective functions.

In specifically capitalist exchange, the circulating functions of money gradually lose their significance, while the hoarding function becomes more important. In accordance with this, banknotes correspond to the function of means of payment, rather than to narrow means of exchange, while deposit money corresponds to the function of means of hoarding. We called banknotes and deposits 'credit money' in order to stress the determining role of credit relations in their characterisation. Money generated by the credit system relies on credit processes for its entry and exit from exchange and this gives it its characteristic circular path, as we saw in some detail for banknotes.

The implications for the analysis of contemporary capitalism are significant. The study of modern deposit money has to commence from the credit relations which underpin the latter. Examination of the structural tendency of real accumulation to create hoards, and the fundamentals of the transformation of those hoards into interest-bearing capital, are preconditions for the study of the behaviour of modern money. The interaction of banking and commercial credit and the institutional development of the credit system shape the supply and cancellation of credit money. Thus the study of the endogeneity of the determination of deposit credit money cannot be posed as a simple functional dependence on the rate of interest. Indeed, at the most basic and highly abstract level, the

rate of interest need not appear in the analysis as a determining influence. The complete examination of the hoarding function as it relates to deposits – and, at a further remove, to world money – is work that remains to be done in order fully to characterise modern capitalist monetary mediation.

The Banking School and the Monetary Thought of Karl Marx*

1 Introduction¹

Extensive research has been carried out on both the Bullion and Currency Controversies since Wicksell's contribution.² In this literature Marx's views on the Controversies have been inadequately explored.³ This is surprising when one considers Marx's theoretical preoccupation with Ricardo, the main exponent of the Bullionists. It is also surprising in view of the fact that Marx did the bulk of his economic research in London just after the peak of the Banking Controversy. Comments on the latter can be found throughout his mature economic work.⁴

Arnon has gone a long way toward filling this gap in the literature.⁵ His central argument is that Marx's mature understanding of money hoards (reserves) as regulators of monetary circulation was influenced by Tooke, the pillar of the Banking School. Arnon also pointed out that Marx was influenced by Tooke's distinction between gold, fiat money and banknotes as qualitatively different forms of money.

Section 2 of this chapter is concerned with the latter point. There is no doubt at all that Marx's analysis of the forms and functions of money was influenced by the views of the Banking School. However, Marx also claimed that

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1 I wish to thank B. Fine, L. Harris and S. Yoshida for helpful comments on the manuscript. All errors are my responsibility.

2 See Wicksell 1905; some seminal contributions in this literature are Viner 1937; Morgan 1943; Fetter 1965.

3 In Western literature, more accurately. Marxist treatments of the Bullion and Currency Controversies, and of the theoretical issues regarding credit money, have been influential in Japanese literature. See, for instance, Aramaki 1957 and 1958; Hirata 1961; Watanabe 1984.

4 For example, Marx 1981, ch. 34, titled 'The Currency Principle and the English Bank Legislation of 1844'.

5 See Arnon 1984b; see also De Brunhoff 1976, Part I, for some illuminating comments.

[n]one of these writers take [sic] a one-sided view of money but deal [sic] with its various aspects, though only from a mechanical angle without paying any attention to the organic relation of these aspects either with one another or with the system of economic categories as a whole.⁶

This chapter argues that Marx's monetary theory attempted to establish the 'organic relation' of the various aspects of money, apparently lacking in the work of the Banking School. Put briefly, Marx started his analysis by positing money as the 'independent form of value', a commodity with its own value, and then proceeded to derive the functions of money. In deriving the latter he linked the evolving forms of money to the performance of particular functions. Thus, gold coin and state fiat money were associated with the function of means of circulation. Credit money, a more developed and advanced type of money, was associated with the function of means of payment. No such theoretical order can be found in the work of the Banking School.

The structured approach preferred by Marx was not a mere fancy of his Germanic philosophical training, alien to the British pragmatism of the Banking School. Theoretical rigour allowed Marx to establish the characteristic behaviour of gold coin and fiat money in circulation (as well as to ascertain the tendency of fiat money to generate price inflation), whilst retaining his original view that money is a commodity. By the same token, for Marx, the feature that qualitatively distinguished credit money from gold and fiat money was the fact that credit money returned to its point of issue (a cyclical path in circulation). The influence of the 'law of the reflux', the much-maligned theoretical innovation of the Banking School, can be detected here.⁷

This type of analysis is far from irrelevant for contemporary theory. Marx's procedure suggests that the unqualified inclusion of depository money, banknotes and coin in a uniform monetary aggregate is problematic. It also suggests that the theoretical connection of depository money with money's functions – means of payment and store of value – should be more fully explored with a view to establishing the specific way in which different types of depository

6 See Marx 1970, p. 186; see also Marx 1976b, p. 225, n. 35.

7 But see Skaggs 1991 for an unusually sympathetic account of Fullarton's law, influenced by the recent free-banking debate. Skaggs finds the law an 'essential part of a genuine theory of competitive banking' (1991, p. 459) and lays heavy emphasis on what he thinks is a clear distinction between the Reflux and the Real Bills Doctrine. He agrees with 'standard texts' that the latter is a fallacy, but insists that in the actual work of Fullarton there is '[e]vidence against the claim that he subscribed to the Real Bills Doctrine in the form in which it is usually stated' (Skaggs 1991, p. 471).

money intervene in the sphere of exchange. The spirit of Marx's analysis would lead us to expect significant qualitative differences among the various types of depository money, as well as significant qualitative differences between deposits and other forms of money.

There are further issues of substance in the theoretical relationship between Marx and the Banking School. Wicksell found that much of the critique of the Quantity Theory offered by the writers of the Banking School was 'excellent'.⁸ Yet, according to him, most of their theory was of a negative character: they powerfully criticised the Quantity Theory views of the Currency School, but offered no satisfactory positive arguments on how the presumed alternative direction of determination, i.e. from prices to money, actually worked. In more recent literature, Green has argued that the critique of the Quantity Theory by the Banking School and Marx was internally inconsistent on the grounds that both implicitly accepted Say's Law.⁹

Section 3 of this article turns to Marx's critique of the Quantity Theory and examines its implications for Marx's own monetary theory. The monetary analysis in the second volume of Marx's *Capital* is important in this connection. That part of Marx's work is mostly concerned with analysing the fundamental exchanges between producers of producer goods, producers of consumer goods and workers. The primary concern of the complex schemata of reproduction developed by Marx was to establish theoretical feasibility conditions for the material and the value reproduction of the total social capital. Nevertheless, the analysis also contains developed elements of a theory of monetary circulation – building blocks for the 'alternative' theory of the connection between aggregate prices and quantity of money. In the second volume of *Capital*, Marx went some way toward constructing a model in which the movement of money is subsidiary to the movement of capital. In this model money hoarding appeared as a vital element of the reproduction of capital.

Arnon is, in my view, right to argue that Marx borrowed insights from Tooke on the issue of monetary hoards. However, Marx turned these insights into the foundations of a theory of circulating and hoarded money which went beyond the work of the Banking School. Marx's work was indeed in the anti-Quantity Theory tradition of Stuart, Tooke and Fullarton, but it was also a significant development of that tradition.¹⁰

8 See Wicksell 1905, vol. II, ch. IV, sec. 7.

9 See Green 1982.

10 See Stuart 1767; Tooke 1959; and Fullarton 1845.

2 The Banking School and Marx's View of the Forms and Functions of Money

According to Marx, a characteristic flaw of Ricardo's monetary theory was its disregard of money's functions other than as a medium of circulation.¹¹ Put simply, the whole of the money of a country at any moment in time is assumed to be in circulation, actively facilitating the realisation of output. This implicit assumption allowed Ricardo to put forward his version of the Quantity Theory of Money, treating the issue of banknotes by the Bank of England as tantamount to gold production.¹² Ricardo was thus able to argue that increases in prices and decreases in the sterling exchange rate during the Napoleonic Wars resulted mainly from increases in the quantity of the notes provided by the banking system.

Marx's own monetary theory had a highly structured view of the functions of money.¹³ His theory started with the essence of money (the 'universal equivalent' or 'independent form of value') posited as the practical resolution of the contradictions between use value and exchange value.¹⁴ From this point of departure, three functions were derived in strict logical sequence: measure of value, means of circulation, and money as money (which includes the dimensions of money as hoard, as means of payment and as international money).¹⁵

A logical (and historical) thread ran through Marx's analysis, establishing the point that money is not what money does, but, on the contrary, what money does is a consequence of what money is. The derivation, put extremely sketchily, went as follows: the commodity 'universal equivalent' becomes established because other commodities express their value in its substance, hence its first function is to measure values and set prices. Once prices have been set, they also have to be 'realised' in the market, therefore, the measure of value must pass from hand to hand and therefore the 'universal equivalent' functions as means of circulation.¹⁶ Thus, the first two functions of money follow from the fundamentals of market processes; they are (for lack of a better term) internal to market processes.

However, regular and developed commodity exchange also poses the requirement that the 'independent form of value' should intervene in the mar-

¹¹ Marx 1970, p. 174.

¹² See Ricardo 1951.

¹³ See Rosdolsky 1977, pp. 135–6.

¹⁴ See Marx 1976b, ch. 1.

¹⁵ See Marx 1976b, ch. 3.

¹⁶ See Marx 1970, pp. 86–7.

kets from without, as it were. Circumstances regularly appear in which the ‘universal equivalent’ is called upon to confront exchange as an external social force; specifically, agents have to be able to buy and sell at all times, deferred payments have to be completed, international transactions have to be settled. Money’s third function is to operate ‘as money’ while answering these needs.

The order of Marx’s derivation is related to the development of the process of exchange: while measure of value corresponds to rudimentary exchange and means of circulation to generalised market processes, the full functioning of money as money takes place in advanced capitalist exchange.¹⁷ The development of the form of money is also central to Marx’s argument: the ‘universal equivalent’ is one commodity among the many and measures value in units of its substance, e.g. bags of salt, ounces of gold; performing the function of means of circulation leads to the emergence of metallic coin, and of state fiat money which symbolises and replaces metallic money naturally worn out in the act of circulation; performing the function of money as money leads to the emergence of credit money (banknotes),¹⁸ a point which I shall develop below.

Close association of form with function allowed Marx to derive strong conclusions, entirely consistent with his premise that money is initially a commodity. Thus, state fiat money suffers from a key weakness, i.e. it is means of circulation *par excellence*, belongs exclusively to the sphere of circulation, and has no value outside it:

Once the notes are in circulation it is impossible to drive them out, for the frontiers of the country limit their movement, on the one hand, and on the other hand they lose all value, both use-value and exchange-value, *outside* the sphere of circulation. Apart from their function they are useless scraps of paper.¹⁹

The lack of an obvious way out of domestic circulation gives to the quantity of circulating fiat money a peculiar determination: the state appears capable of augmenting this quantity at will, but has difficulty in making downward adjustments. This peculiarity of Prussian paper Thalers, Russian paper Roubles and, above all, French Assignats, was central to Marx’s understanding of the hyperinflation of the eighteenth century. Repeated and frequent issues of such money

17 The connection between form and function of money, the spontaneous emergence of symbol money and the function of store of value are more fully analysed in Lapavitsas 1991.

18 See Marx 1976b, pp. 221–2 and 1970, p. 116.

19 See Marx, 1970, p. 119, original emphasis.

(other things being roughly equal, such as commodity values, metal value and velocity of money) led to a collapse of its exchange ratio against commodities. The reason was that, unable to exit from circulation, the quantity of fiat money ballooned while the quantity of metallic money replaced by it (and determined by commodity values and velocity) remained unaffected. Therefore, each unit of fiat money tended to symbolise less and less of metallic money.²⁰ Since commodity prices (expressing unchanged labour time) were denominated in units of fiat money, it followed that, for their nomenclature to be preserved, prices had to rise commensurately with the depreciation of fiat money.

There was no presumption in Marx's analysis that increases in the quantity of money led to a rising eagerness to spend and thus, eventually, to higher prices. Despite formal similarities with the Quantity Theory, Marx did not argue that increases in fiat money represented fresh money demand, other things being equal. Rapid fiat money inflation was instead seen as the outcome of a blind, ineluctable process of readjusting the measurement of value. This was a process similar to the turbulence precipitated by a change in the value of the monetary metal:

[I]f that value fell, the fall would first appear as a change in the prices of the commodities directly exchanged with the precious metals at their source. The greater part of all other commodities would continue for a long time to be estimated in terms of the former value of the measure of value, even if that had become antiquated and illusory (especially when bourgeois society was still at a less developed stage). Nevertheless, one commodity would infect another through their common value-relation so that their prices, expressed in gold or silver, would gradually settle down into the proportions determined by comparative values, until finally the values of all commodities would be estimated in terms of the new value of the monetary metal.²¹

From this perspective, inflation caused by fiat money is the way in which the disturbed measure of value becomes once again compatible with the function of means of circulation. Through inflation, commodity circulation reasserts its pre-eminence over the state's apparent ability to determine at will the quantity of fiat money.²²

20 See Marx 1976b, pp. 224–5.

21 See Marx 1976b, p. 214.

22 See Marx 1970, pp. 118–22.

This theoretical treatment of fiat money immediately reveals how much Marx owed to the Banking School, but also shows the superior explanatory power of his approach. Tooke (and Fullarton) clearly distinguished between Assignat-type money and banknotes (typically those of the Bank of England, but also of country banks). Tooke accused his opponents of not understanding the difference between these two types of money and, thus, trying to impute Assignat-like tendencies to banknote credit money.²³ The Banking School generally argued that Assignat-type money was unrelated to credit processes and could well generate sustained price inflation. However, they did not account for the mechanism of such inflation with precision that was equal to Marx's, and similarly free from the notion that more money creates fresh demand.

Arnon noted that the mature Tooke had an 'income theory of prices', a barely elaborated view which held that aggregate money prices ('general prices' in Tooke's terminology) were determined by the sum of money which constitutes the income of consumers, hence effective demand.²⁴ Fluctuations in the amount of convertible banknotes stood for mere changes in the composition of such demand; fluctuations in the amount of inconvertible fiat money represented changes in the level of demand. Thus, Tooke argued: 'A compulsory government paper, on the other hand, while it is in the course of augmentation, acts directly as an originating cause on prices and incomes, constituting a fresh source of demand in money, depreciated in value as compared with gold, but of the same nominal value as before.'²⁵

This is a partial return to the Quantity Theory, the result of, first, Tooke's lack of a theory linking money's essence to its forms and functions, and second, his rudimentary theory of price formation. There is no such lapse in Marx.

Be that as it may, the relationship between Marx and the Banking School is substantially more complex when it comes to credit money. For the Banking School, banknotes were a way of advancing bank credit, primarily in the discount of bills. Precisely because they were a type of bank credit, banknotes also tended to flow back to the banks as customers repaid their debts, purchased gold, or opened deposits.²⁶ On the basis of this 'law of the reflux', the Bank-

23 See Tooke 1959, ch. III. It is worth noting that Arnon (1984a and 1991) has done much more justice to the great man's views than Gregory (1928). Arnon offers an informative and balanced account of the mature views of Tooke as well as of the path of Tooke's mental development.

24 See Arnon 1991, pp. 110–12.

25 See Tooke 1959, pp. 70–1.

26 The clearest exposition of 'the law of the reflux' was given by Fullarton 1969, pp. 67–8.

ing School countered the Ricardian theory of ‘overissue’ of banknotes as the explanation for price rises and exchange rate falls.

The Banking School view that credit money differs qualitatively from other forms of money was echoed by Marx: ‘*Credit money* belongs to a more advanced state of the social process of production and conforms to very different laws.’²⁷ Marx, however, also related credit money to the functions of money. Money functions as means of payment in the settlement of debt, i.e. in relations of credit and in the supersession of simple buying and selling; for Marx this is where credit money ‘takes root’:

But it may be noted in passing that just as true paper money arises out of the function of money as the circulating medium, so does credit money take root spontaneously in the function of money as the means of payment. Thus, while state fiat money is plain means of circulation, banknotes are a complex form of money related to credit operations and to the function of money as money (means of payment).²⁸

It is not unreasonable to surmise that some version of the ‘law of the reflux’ underpinned Marx’s view of what constitutes the distinctiveness of credit money. There are several pointers in this direction. Thus, Marx himself attributed the discovery of the ‘law’ to Sir James Steuart:²⁹ ‘The second law discovered by *Steuart* is that currency based on credit returns to its point of departure’.³⁰ Rosdolsky has also noted that in the *Grundrisse* Marx mentioned the tendency of banknotes to return to their point of issue – the ‘bent-back on itself’ character of their movement.³¹ More significantly, only in the light of the ‘law of the reflux’ can it be understood why Marx devoted such great effort to elaborating the movement of gold money in circulation, stressing that gold coin tended to move farther and farther away from its point of entry in circulation, its path having a random shape.³² The random path of metallic money stands in stark contrast to the cyclical path of the banknote, indicating a qualitative difference between these two forms of money.

Associating credit money with the function of means of payment is an appealing aspect of Marx’s theory, but it should be stressed that credit money

27 See Marx 1970, p. 116.

28 See Marx 1976b, p. 224.

29 See Steuart 1767.

30 See Marx 1970, p. 116, original emphasis.

31 See Rosdolsky 1977, p. 144, ch. 11.

32 See Marx 1970, p. 102; see also 1976b, p. 210.

was not analysed by him in a manner comparable to fiat money; the ‘very different laws’, alluded to by Marx, were left largely untheorised in the corpus of his work. Presumably, Marx’s method dictated that the analysis of credit money should follow that of interest-bearing capital and banking, work which he left unfinished in the third volume of *Capital*. Whatever the reason for it, this lacuna weakens the power of Marx’s discussion of monetary and credit crises in the same volume of *Capital*. In this respect, and despite the lesser rigour of their theorising, the Banking School have left a fuller legacy for monetary theory.

Modern monetary theory is not particularly interested in the path of money in circulation: different types of deposit, banknotes and coin are indistinguishable *qua* means of circulation. Marx’s analysis suggests that credit money (primarily deposits in the modern banking system) should be systematically related to the function of money as money, particularly means of payment and store of value. If a cyclical movement is indeed the *differentia specifica* of credit money, there is surely some significance to the fact that modern central banks have the monopoly of banknote issue (collapsing all points of entry and exit from circulation into one), as well as to the fact that modern banknotes are not issued in bill discount. Furthermore, the cyclical movement of depository money (involving the cancellation of such money as debt is repaid) could also be fruitfully examined as part of the study of the supply of money and of the money multiplier. In this respect, the functional equivalence between different types of deposits, typically assumed by mainstream theory, has to be demonstrated and cannot be taken for granted.

3 Monetary Circulation and the Role of Money Hoards in the Accumulation of Capital

Exogenous Changes in M

It is well known that Marx and the Banking School writers rejected the Quantity Theory of Money: the direction of determination runs from prices to money and not vice versa. This is tantamount to stating that the quantity of money is the endogenous, dependent variable of the process of exchange. For this assertion to have any theoretical weight – particularly under conditions of metallic money in circulation – it must also be argued that the whole of the money stock of the economy is divided into an actively circulating part and a hoarded part. Hoards are then the repository of money which becomes disengaged from circulation as well as the source from which fresh money is added to circulation. The existence of hoards makes it possible for determination to run from

prices to money as the money stock is appropriately and continually readjusted between hoard and circulation. Of necessity the Banking School stressed the existence of hoards and emphasised the hoarding function of money.³³

Money hoarding is also very important to Marx's analysis of domestic monetary circulation, hoards acting as regulators of the circulating quantity of money by constantly absorbing and releasing money.³⁴ Arnon has pointed out that, in this respect too, Marx was influenced by the Banking School, while Green makes much the same point.³⁵ It is worth stressing that, similarly to Tooke and Fullarton, Marx also emphasised the role of money hoards in international trade and in the settlement of foreign balances. A unique and extremely interesting feature of Marx's monetary theory, moreover, was to discuss hoards as a repository of social power in class societies.³⁶

In an influential article, Green has argued that the classical opponents of the Quantity Theory (in which he includes mainly the Banking School and Marx) accepted Say's Law of Markets and assumed that saving and investment were identical.³⁷ According to Green, Marx thought that '[o]utput simply expressed the stage of accumulation' and consequently failed to provide an analytical mechanism identifying the level to which output would tend in the event of a crisis of overproduction.³⁸ Green, following Garegnani, further argued that Ricardo, the main advocate of the Quantity Theory in the nineteenth century, also accepted the identity of saving and investment.³⁹ Thus, for Green, neither the supporters nor the opponents of the Quantity Theory were in a position to develop a theory of output determination.

To demonstrate the significance of this for monetary theory, Green has employed the $MV = PY$ form of the equation of exchange, Y being total output rather than the number of commodity transactions. Naturally, velocity v '[n]o longer reflects the circulation of a stock of commodities but the rate of expenditure of a flow of income (corresponding to a flow of output)'.⁴⁰ Say's Law implies that both Y and v are fixed exogenously. For the opponents of the Quantity Theory, furthermore, P was determined independently (on the basis of the law of value), therefore M was the dependent variable in the equation.

33 See, for instance, Tooke 1959, ch. II; Fullarton 1845, ch. IV.

34 See, for instance, Marx 1976b, pp. 231–2.

35 See Arnon 1984b and Green 1982.

36 See Marx 1970, pp. 126–36.

37 See Green 1982.

38 Green 1982, p. 62.

39 See Garegnani 1978–9.

40 See Green 1982, p. 63.

The problems, as Green sees them, appear when theory has to analyse exogenous increases in the money supply. Since Y is constant, either P or V will have to adjust to a change in M . The Banking School and Marx argued that V rather than P would do so (through hoarding or dishoarding). Given, however, that they had failed to rebut Say's Law, and so implicitly accepted an exogenously determined V , their opposition lacked 'logical consistency'. Ricardo's argument that P would adjust to the change in M , at least possessed consistency. Marx and the Banking School should have provided a theory of saving and investment determination if they wanted to be consistent. Green sees this as the crucial flaw of their attack on the Quantity Theory.

The claim that Marx's critique of the Quantity Theory was internally inconsistent on account of his acceptance of Say's Law is surprising. It is well known that Marx unequivocally rejected Say's Law, 'childish babble' unworthy of a Ricardo, and dismissed its 'insipid' originator.⁴¹ Say's Law was not important to Marx's monetary analysis, either explicitly or implicitly, to establish what we consider to be the monetary dimension of Marx's capitalist reproduction schemata. Green observes in passing that the reproduction schemata developed by Marx are evidence that he accepted Say's Law.⁴² I shall argue below that those models actually demonstrate the remarkable consistency of Marx's monetary work.

Marx's opposition to the Quantity Theory had little to do directly with the velocity of money. The nebulous concept of 'income velocity' (i.e. money income somehow realised by the whole of the money stock and accorded an abstract rate of expenditure) was alien to Marx's analysis. There is no evidence at all that Marx used the concept of income velocity (a mere analytical device derived *ex post facto* by the simple division of income by money), much less that his analysis implied its constancy. For Marx, and typically for the classical economists, velocity referred to circulating money and was determined *ex ante* by the institutional, technical, geographical and other features of production and exchange.⁴³ Hoarding and dishoarding do not affect the velocity of circulating money, but its quantity. The spirit and method of Marx's monetary analysis was, rather, to question the very concept of an 'exogenous' increase in the money supply. This is clear from the scorn he reserves for Mill's 'arbitrary and trite' assumptions in increasing, *ceteris paribus*, the quantity of money and postulating proportionate increases in prices: '[t]hen it is indeed "evident" that one

41 See, respectively, Marx 1969, p. 502, and Marx 1970, p. 168.

42 See Green 1982, p. 62.

43 See, for instance, Marx 1973, p. 187.

has assumed what one has pretended to prove'.⁴⁴ Theoretical exercises based on the identity of exchange were seen as pointless by Marx.

The same point emerges even more clearly from Marx's critique of Ricardo's Quantity Theory.⁴⁵ Marx agreed with Ricardo's initial premise that money is a commodity with its own value.⁴⁶ This he saw as an advance on Hume's view of money as mere symbol having 'chiefly a fictitious value'.⁴⁷ However, Marx powerfully criticised Ricardo for abandoning his own premise as soon as he had to ascertain its implications for the determination of the quantity of money in circulation. Instead of doing this, Ricardo took flight in the complexities of the price-specie-flow mechanism and tried to relate presumed exogenous changes in the quantity of money to changes in domestic prices and the rate of exchange. For Marx, this was a theoretical retrogression toward Hume's position.

Only if money were a symbol and not a commodity with its own value could Ricardo argue that circulating money (including gold) would depreciate if its quantity (exogenously) grew beyond the bounds dictated by the 'needs of commerce'. Ricardo's assertion implied that '[t]he gold in circulation is a token of value representing either a larger or a smaller value than it actually possesses. It can become an appreciated or depreciated token of itself'.⁴⁸ Since Ricardo effectively took money to be a symbol of value (despite being gold) he also had a resolution for the disequilibrium close to hand: domestically depreciating gold would be exported thereby reducing the quantity of money until the depreciation was annulled. The symbol of value would once again have an exchange rate with commodities consonant with the 'needs of commerce'.

Marx's specific criticisms of the price-specie-flow mechanism are not material to our purposes, but his methodological point is of critical importance. To Marx's mind, Ricardo should have proceeded to tackle the difficult theoretical problem of specifying how commodity money enters and leaves the sphere of circulation as the material reproduction of society takes place. Ricardo instead chose to deal with exogenous increases in the quantity of money, thus developing what Marx saw as a wrong theory in the price-specie-flow mechanism and implicitly abandoning the correct assumption that money has its own value.

44 See Marx 1970, p. 181.

45 As found in Ricardo 1951.

46 See Marx 1970, pp. 171–2.

47 See Hume 1875, vol. 1, pp. 312 and 321.

48 See Marx 1970, p. 173.

The structure of Marx's monetary work in *Capital* reflects his own view about what he assumed to be the correct procedure. The opening chapters of the first volume of *Capital* contain a detailed discussion of money's functions and forms in circulation, Marx's own complex version of the identity of exchange, and an analysis of hoarding as regulator of circulation. Marx established these results for 'simple circulation', i.e. for market processes analysed in abstraction from the complexities and implications of capitalist production.⁴⁹ Phenomena such as the exploitation of labour, the equalisation of the rate of profit, the formation of prices of production distinct from values, were assumed not to have a bearing on the general results concerning the functions, forms and quantity of circulating money. There is no analysis of monetary phenomena in the rest of the first volume of *Capital* – there is certainly no attempt to analyse the impact of an exogenous increase in the quantity of money on either prices or output.

Monetary analysis reappears when Marx turns to capitalist reproduction as a whole in the second volume of *Capital*, but it does so in a way which is easy to misread or to ignore. In the second volume of *Capital*, the 'simple circulation' results from the first volume were taken for granted, and were assumed to apply uniformly in capitalist circulation.⁵⁰ Commodity and money capital, regardless of their manifold peculiarities, are, after all, commodities and money: 'However, none of the laws put forward with respect to the quantity of money circulating for the purpose of commodity circulation (Volume 1, Chapter 3) are in any way altered by the capitalist character of the production process'.⁵¹

These 'laws', though, still did not specify the economic factors which initiate commodity flows and elicit the entry and exit of money from the sphere of circulation. Furthermore, they provided no theory of how the re-division of a country's monetary stock between circulating and hoarded money takes place. These are the questions which, for Marx, should have been dealt with by Ricardo.

Marx began to tackle these issues and I shall summarise his results below, but it is easy to overlook this aspect of his work. The reason is, I think, that monetary phenomena were treated by Marx as a secondary aspect of the process of capitalist reproduction. Pride of place in his analysis in the second volume of *Capital* was given to commodity flows necessary for the material reproduction of society. Flows and hoards of money were posited as by-products of the flows

49 See De Brunhoff 1976, part 1.

50 See Marx 1978, pp. 261 and 400.

51 Marx 1978, p. 406.

of capital and of the economic decisions initiating the latter. The monetary function of the hoards, for instance, was not posited as the reason for their formation. Rather, hoards were shown to emerge for reasons specific to the process of real accumulation, the re-division of a country's monetary stock being an inevitable side-effect. The argument (against the Quantity Theory) that monetary phenomena are subsidiary to the circulation of commodities was consistently applied throughout Marx's work.⁵²

These points have a bearing on Green's critique of Marx. Contrary to what Green argues, for Marx the monetary analysis of simple commodity exchange reaches a dead end when the identity of exchange, $MV = PT$ is posited. All that can be said about monetary phenomena from the study of plain commodities and money has been said. Theoretical exercises based on exogenous changes in M are meaningless and potentially misleading. Nowhere in his work does Marx undertake such a pointless labour. Even less does he try to demonstrate that the velocity of money takes the strain of an exogenous increase in M . Instead, and perfectly consistently with the logic of the economic categories, Marx undertakes the examination of capital circulation and begins to derive monetary processes from the fundamentals of such circulation. The entire model of capitalist reproduction constructed by Marx in the second volume of *Capital* is also an abstract representation of monetary circulation elicited by the circulation of commodities (more accurately, of commodity capital). It is a painstaking demonstration of how M enters and leaves the sphere of circulation under conditions of capitalist exchange.

The influence of the Banking School on Marx's work can be seen in this respect too, although Tooke and the others did not achieve a similarly accurate theoretical formulation of the issues involved. Tooke's monumental *History of Prices* was not, on the whole, concerned with exploring the effect on prices of exogenous changes in the money supply. In his mature anti-Quantity Theory work, Tooke explained actual changes in the money supply, which could have been construed as exogenous and thus as the initiators of price fluctuations, in terms of prior price changes. His normal practice was to establish the reasons for the latter through the examination of the conditions of demand and supply obtaining in the major markets, mainly the markets for agricultural produce. With enormous empirical knowledge of prices and markets – which so impressed his contemporaries – and with an equally enormous facility for mundane, repetitive work, he investigated in this manner the changes in the English money supply during two-thirds of a century.⁵³

52 See, for instance, Marx 1970, p. 103.

53 Subsequent literature has pointed out that the absence of index number analysis and the

Money Flows and Hoards in the Reproduction of Capital

Marx's reproduction models in the second volume of *Capital* represent a closed system of capitalist reproduction (i.e. only the capitalist and the working class are assumed to exist and there is no mode of production outside the capitalist one). The modern concept of equilibrium is not applicable to the schemata of reproduction and there is no level of output toward which the system tends. The schemata are, rather, theoretical examinations of the feasibility of capitalist reproduction as a closed system. Our aim in going over this well-trodden ground is very narrow: to summarise Marx's monetary results and to show that they develop further the previous analysis of simple commodity exchange. These issues are relatively neglected in the modern literature.⁵⁴

We shall be concerned with the movement of the total social capital rather than individual capitals. To further the discussion we will employ the concept of the circuit of capital (best thought of as a circular flow diagram):⁵⁵

$$M - c - (lp+mp) \dots P \dots c' - M' - (M+\delta M)$$

M is the total money capital advanced by the bourgeois class in order to purchase the social output of means of production, mp , and to employ labour power, lp , (together comprising commodity capital, c). Exploitation at the point of production, P , results in the generation of surplus value (contained in commodity capital c'), the money form of which is aggregate profit δM . Surplus value could be unproductively consumed by the bourgeois class, thus leading to the simple reproduction of capital, or it could be partly reinvested leading to

lack of modern econometric techniques seriously weaken the validity of Tooke's work as far as the relationship between the aggregate price level and the money supply is concerned. It is beyond the purpose of this chapter to examine this further, but two points should be made. First, on the basis of Tooke's figures, Arnon has estimated price and money indices and established econometric relations consistent with the claims of the Banking School (Arnon 1991). Second, it is the case, perhaps, that the vast improvement in technical sophistication has not actually increased our insight into these questions. Econometric demonstrations of causality are not necessarily superior to Tooke's concrete historical and institutional treatment of empirical questions.

54 The most notable exception is De Brunhoff 1976. De Brunhoff has incisively analysed the financial requirements for equilibrium in Marx's reproduction schema and assigned to hoards a key role in the process. However, she did not discuss the import of this analysis for monetary circulation. In other words, the relevance of the reproduction schema to the discussion of the Quantity Theory of money and the process of hoarding as a re-division of the money stock at the macro level were not analysed.

55 See Fine 1975, p. 47.

expanded reproduction and the generation of more profit in the next turnover. The return to the money form at the end of $c' - M'$ takes place as capitalists purchase the requisite means of production, and as both capitalists and workers purchase their means of consumption out of the output of the last turnover. The division of the total social capital into competing individual capitals is not significant in this connection. The appropriate distinctions are those which Marx himself employed in his analysis, namely, first, the distinction between the bourgeois class and the working class, and second, the distinction between Department I, the production of the means of production, and Department II, the production of the means of consumption.

The monetary side of Marx's analysis of capitalist reproduction was characterised by preoccupation with two issues. The first was to specify the economic decisions which set money in motion – decisions which 'precipitate' money into circulation, but also remove it from the sphere of circulation. The second was to elaborate the creation and the role of money hoards as the fundamental exchanges take place in the model. At all times, these objectives took second place to the main task of theoretically demonstrating the feasibility of the reproduction of the total capital. The monetary analysis presupposed the results of simple circulation, particularly the determination of the quantity of circulating money as well as the constant re-division of the monetary stock of a country.

Money Flows

With regard to money flows, Marx identified four types of economic decisions which initiate the movement of money in the sphere of circulation; (i) the purchase of constant capital from Department I by all capitalists; (ii) the hiring of workers by all capitalists; (iii) the subsequent purchase of consumption goods by workers from Department II; and (iv) the purchase of consumption goods from Department II by capitalists engaged in unproductive consumption.

There is substantial complexity to these fundamental exchanges and Marx's equilibrium results do not concern us here. What is important for our purposes is that, in all the above instances, money's initial entry into circulation is triggered by capitalists who have to undertake reproduction steps. This is consistent with Marx's claim that all the money which enters circulation has its ultimate source in the bourgeois class.⁵⁶ The size of the monetary advances in the model – hence the magnitude of the flows of circulating money – is already determined by the value-forming processes connected with production. The

56 See Marx 1978, pp. 407–9.

advance of variable capital for the hiring of workers, for instance, has its size already determined by the given values of labour power and of the money unit.

From the study of the fundamental exchanges, Marx drew the following result regarding the nature of money's movement in capitalist circulation:

The general conclusion that follows, as far as concerns the money that the industrial capitalists cast into circulation to mediate their own commodity circulation, is that whether this is advanced on account of the constant value portion of their commodities, or on account of the surplus-value existing in those commodities in so far as it is spent as revenue, the same amount flows back to the respective capitalists as they themselves advanced for monetary circulation.⁵⁷

In short, the characteristic of the circulation of money in capitalist exchange, insofar as it can be surmised from the exchanges of capital reproduction, is its broadly cyclical form.

One of the sets of fundamental exchanges analysed by Marx will suffice to clarify the typical movement of money in the course of the reproduction of capital.⁵⁸ Department I capitalists advance their variable capital to hire workers; these workers proceed to purchase means of consumption from Department II capitalists; the latter now have the money to purchase means of production from Department I and in so doing they return this money to the initiators of the process. Thus, the advance of variable capital by Department I capitalists anticipates the purchase of means of production by Department II capitalists. This basic pattern is constantly repeated in the fundamental exchanges which complete the reproduction of the social capital. By moving cyclically, money connects different sections of the total social capital, and enables those sections continually to realise their own output as well as facilitating the realisation of the output of others.

It is important to stress, that the cyclical aspect of the circulation of money in the reproduction of capital should not be confused with the reflux, and so the cyclical movement, of credit money. It is a much more fundamental movement reflecting the underlying movement of the total social capital. The point simply is that the various sections of the bourgeois class constantly alternate between advancing and receiving money as capital is reproduced. This constant alternation of roles imparts to the circulation of money its underlying cyclical aspect.

57 Marx 1978, p. 477.

58 Marx 1978, pp. 477–8.

The old problem of the 'realisation' of the surplus, which has in the past exercised Marxist economists, exemplifies further Marx's general approach to the issue of monetary circulation.⁵⁹ The point about the cyclical nature of monetary circulation, incidentally, was missed by Bukharin in his critique of Luxemburg's resolution of the 'realisation' problem by creating a third Department producing the monetary metal, gold.⁶⁰ The question asked by Marx – which 'neither Tooke nor anyone else has yet answered' – was: where does the extra money come from in order to realise the profit of the capitalist class?⁶¹ Following the spirit of Marx's analysis, the answer must be found with the velocity of money assumed constant because velocity is determined by conditions exogenous to the model of capital reproduction. Equally, the answer must be found without reference to credit – i.e. by postulating that the capitalists borrow the extra money from banks, or some other source – since the reproduction of the capitalist mode of production is not necessarily predicated upon the existence of a developed credit system.

It should be stressed, as De Brunhoff notes, that the issue does not exist as a separate financial or monetary problem.⁶² At both stages $M - C$ and $C' - M'$ the general results of simple circulation still apply, and so the quantity of money will be commensurate with commodity prices, money velocity, and so on. Thus, the origin of the money 'realising' surplus value will be the same as that of all other money. At most, 'realisation' would be a variant of the more general problem that is dealt with throughout the second volume of *Capital*, namely, what are the economic decisions that activate the entry of 'extra' money in the sphere of circulation?

Marx naturally resolves the problem in its general form and argues that capitalists themselves have to provide more money funds at stage $C' - M'$ than they took out of circulation at stage $M - C$. A flow of money sufficient for the purchase of total surplus value will have to come out of hoards or from returning money capital, its movement triggered by the purchase of capitalist consumption goods and/or investment goods. Even in dealing with this 'non-question', Marx provides the answer in distinctly anti-Quantity Theory terms of a macroeconomic activity (consumption of surplus value) which triggers the entry of money into circulation and a size of monetary flow determined by profit, in turn determined in production.

59 See Luxemburg 1951; Luxemburg and Bukharin 1972.

60 See Luxemburg and Bukharin 1972, ch. 2.

61 See Marx 1978, p. 405.

62 See De Brunhoff 1976, p. 61.

Money Hoards

The second monetary issue elaborated in the schemata of reproduction was the role of money hoards. Marx's approach throughout the second volume of *Capital* was to demonstrate the emergence of such hoards as an inevitable by-product of the process of reproduction. Money hoards emerge when surplus value is stored until it reaches a size sufficient for reinvestment; from the sale of the final product over a long period of time; from the amortisation of the value of constant capital; from the output of the gold producers which is immediately money; as reserve funds which capitalists possess when they commence the circuit of capital.⁶³ These hoards enable the various sections of the bourgeois class to supplement the re-advance of returning money capital, to start fresh circuits, to turn buyer and payer without having sold first. Money hoarding is both inevitable and necessary in capitalist reproduction.

It was clear to Marx that the hoarding and dishoarding actions, undertaken independently by various sections of the bourgeois class, must come to an equilibrium for reproduction to be possible. He stressed that unilateral purchases by one section of the bourgeois class (dishoarding) were a necessary counterpart to unilateral sales (hoarding) by another section.⁶⁴ Thus, a permanent tension and a need for balance exist between hoarding and dishoarding. As De Brunhoff noted, this 'balance of hoarding' should be distinguished from the saving and investment balance necessary for material reproduction.⁶⁵

De Brunhoff's point is most clearly seen in the context of Marx's analysis of the replacement of fixed capital and the expansion of reproduction through the reinvestment of surplus value.⁶⁶ Consider the replacement of fixed capital: at some stage in the course of the reproduction of capital, a section of the bourgeois class would throw a previously accumulated, additional lump sum of money into circulation, seeking to replenish its fixed capital. If, for ease of exposition, we assume simple reproduction, the extra money would represent a money demand above the normal output of Department I. It follows that reproduction would certainly be disrupted unless the money capital hoarded by the sections of the bourgeois class which would be amortising their depreciating fixed capital would actually balance out the sudden injection. The same point could also be made regarding the exchanges of expanded reproduction. In general, some capitalists would not be expanding reproduction, therefore they would be hoarding realised surplus value. The dishoarding sections, on

63 See, respectively, Marx 1978, pp. 158–9 and 162–4; p. 566; pp. 572–4; pp. 410–12; pp. 164–5.

64 See Fine 1980, p. 20, for a diagram which makes this point easier to follow.

65 See De Brunhoff 1976, p. 69.

66 See Marx 1978, pp. 524–5.

the other hand, must be able to throw enough fresh money into circulation to purchase the additional producer goods which already contain surplus value and which would allow the expansion of reproduction.⁶⁷

Such unilateral decisions to hoard and dishoard by different sections of the bourgeois class would not immediately and automatically balance each other out. The monetary implications are profound, as Marx constantly reminds the reader:

In the first volume (Chapter 3, 3, a) it was shown that although part of the money present in a society always lies fallow in the form of a hoard, while another part functions as means of circulation or as an immediate reserve fund of directly circulating money, the proportion in which the total quantity of money is divided between hoard and means of circulation constantly alters. In our present case, money that has to be accumulated on a large scale as a hoard in the hands of a big capitalist is thrown in circulation all at once on the purchase of fixed capital. It is then divided up again in the society between means of circulation and hoard. By way of the amortization fund in which the value of the fixed capital flows back to its starting point in proportion to the wear and tear, a part of the money in circulation again forms a hoard – for a longer or shorter period of time – in the hands of the same capitalist whose hoards was transformed into the means of circulation and separated from him in the acquisition of fixed capital.⁶⁸

To rephrase, as the capitalist class continually readjusts its money hoards, and for reasons entirely unrelated to the monetary functions of hoards, society's monetary stock is re-divided between circulating and hoarded money, thus enabling the endogenous determination of the quantity money in circulation.

In sum, Marx's analysis of the reproduction schemata gradually elaborates the hoarding processes and the generation of money flows which are instrumental to the determination of the quantity of money in circulation. Therefore, the monetary analysis in the second volume of *Capital* is the necessary supplement of the first volume of *Capital* and of the *Contribution*. Marx, as Arnon has pointed out, was indeed influenced by the Banking School's view of the monetary role of hoards, but he also attempted to establish the structural reasons for hoarding independently of the simplicities of commodity exchange or the ver-

67 See Marx 1978, pp. 572–7.

68 Marx 1978, p. 261.

ities of the identity of exchange. Neither Tooke nor Fullarton had comparable theoretical insights to offer. Marx, therefore, gave necessary depth to the anti-Quantity Theory tradition. Wicksell seems not to have appreciated this aspect of Marx's work when he attacked his treatment of money velocity as 'absurd'.⁶⁹ Far from Marx's monetary thought being inconsistent, it actually exhibits a remarkable consistency throughout his economic work.

It is not pretended here that Marx's analysis was complete, especially as regards the significance of trade and banking credit for the hoarding process, the role of banks in transforming stagnant money into loanable capital, the implications of the emergence of bank-generated credit money for the form of capitalist hoards, and, above all, the role of the state in the process of monetary circulation. However, Marx's work provides useful guidelines for the examination of those questions insofar as it treats the processes which bring money into circulation, and the processes which create money hoards, as endogenous to the accumulation of capital and determined outside the sphere of exchange. There are no concessions here to exogenous shocks representing changes in money demand. The movement of money is inherently cyclical: it obeys the logic of the circulation of commodity capital and is elicited by the latter.

Conclusion

This chapter has claimed that while Marx as a monetary economist was significantly influenced by the anti-Quantity Theory tradition, his own work provided necessary foundations for the arguments of that tradition. In this respect, Marx's monetary writings remain significant sources of learning for monetary economists. I have attempted to demonstrate the main argument in two different but closely related ways. First, it was shown that Marx was indeed influenced by the views of the Banking School on the multiplicity of money's functions, particularly the significance of the hoarding function. Yet, and I believe this to be characteristic of Marx's general approach to economic theory, Marx proceeded to incorporate these functions into a monetary theory which cohered closely with the theory of value. The Banking School recognised neither a clear order nor the existence of logical and real connections among the functions of money. As a result, their analysis of the connection between money and prices did not have the coherence and consistency of that of Marx.

69 See Wicksell 1905, Vol. II, p. 150.

Second, and perhaps more important, Marx agreed with the Banking School on its anti-Quantity Theory stance, but went beyond it by providing theoretical foundations for the view that determination runs from prices to money and not vice versa. This was not done by analysing the impact of an exogenous increase in the money supply, which for Marx was a nonsensical way to proceed. Instead, he deduced the key features of capitalist monetary circulation whilst undertaking the analysis of the reproduction of capital. The entry of money into the sphere of exchange was shown to be endogenous to the theoretical schema and elicited by commodity circulation. The re-division of the total monetary stock between hoarded and circulating money was built into the model, and the path of the flows of money in the reproduction of capital was shown to be fundamentally cyclical.

The Classical Adjustment Mechanism of International Balances: Marx's Critique*

1 Introduction¹

The work of Henry Thornton was rediscovered by Jacob Viner in the course of his study of the classical mechanism of the adjustment of the balance of payments.² Thornton stands out in the classical literature because, contrary to Ricardo who believed that money is exported from a country only when its quantity is excessive or redundant domestically, he held the view that money export could also be induced by balance of trade deficits, or, analogously, by capital transfers abroad. The substance of the matter is today considered settled in favour of Thornton.

However, there is much less agreement on why Ricardo, the most rational of political economists, should have argued something so patently fallacious. Mere scanning of the literature reveals a variety of opinions. For Sayers, Ricardo had insufficient knowledge of the realities of production in the British economy; Mason thought that he was concerned with long-run analysis and neglected the income effects of money transfers, though Grubel believed that Ricardo did not neglect income effects; Hollander was of the opinion that Ricardo emphasised exchange rate changes and alterations in the structure rather than the level of prices.³

The point of departure for this chapter is the observation that in Marx's monetary writings Ricardo's domestic quantity theory of money and his theory of international adjustment were criticised in a way that challenged the

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1 I am grateful to Makoto Itoh for generous help with this chapter. I have also benefited from discussions with Hiroshi Yoshikawa and John Weeks. All errors are my own responsibility.

2 See Viner 1924. Thornton's obscurity was such that he did not even rate a mention in Seligman's acclaimed 1903 study of 'neglected' contemporaries and successors of Ricardo, which included Torrens.

3 See, respectively, Sayers 1953; Mason 1957 and Grubel 1961; Hollander 1979.

very foundations of the Ricardian price-level-specie-flow model.⁴ Nonetheless, debate between different economic currents being what it is, Viner was able fully to ignore Marx's critique of Ricardo's theory whilst faithfully recording the musings of several muddle-headed pamphleteers.⁵ In contrast, this chapter draws explicitly on Marx's work to demonstrate that Ricardo's fallacious argument regarding the international export of money is a corollary of a key assumption, namely, that money is a 'simple' commodity indistinguishable from all others.

Ricardo's assumption, moreover, is closely related to his fundamental view that money has intrinsic quantity-of-labour value. It is an intriguing point in the history of economic thought that Marx, who had a labour theory of value similar to Ricardo's, actually combined it with a totally different monetary analysis. It is shown in this chapter that Marx was able to follow this path precisely because he stressed the 'special' character of money in domestic and international exchange. To be specific, contrary to Ricardo, Marx laid considerable emphasis on money functioning as reliable store of value, means of debt settlement, means of extraordinary payments, and medium of wealth transfer. On these grounds he was able to reject the domestic quantity theory of money and the related international adjustment mechanism, even though he continued to cling to the view that money is a commodity with its own labour-value.⁶ The price that Marx paid, however, was that his monetary analysis had neither the elegance nor the deceptive persuasiveness of Ricardo's theory.

4 At the same time, Thornton's work was, to all intents and purposes, ignored by Marx.

5 That seemed to have been a conscious choice, for there is evidence that Viner, whose scholarship was justly famous, had read even obscure works of Marx; see, for instance, Viner 1991, pp. 152–3.

6 Green has also discussed the relationship between the classical economists and Marx on these issues (see Green 1982 and 1992). Green treats Marx as the last of the classical economists and sympathises with Marx's critique of the quantity theory of money. However, he also argues that Marx essentially accepted Say's Law, and since the quantity theory of money is a corollary of Say's Law, Marx's opposition to the theory was, for Green, not logically satisfactory. What is missing is a short-run theory of the determination of output. It is indeed true that the reproduction schemata of the second volume of *Capital* are instances of supply generating its own demand, and that Marx has left no fully worked out theory of short-run output, but it is stretching a point to claim on those grounds that Marx accepted Say's Law. I have elsewhere (see Lapavistas 1994) argued that Green has overlooked the significance of the endogeneity of the supply of money in Marx's critique of the quantity theory of money. Above all, however, it seems to me that the issue of the validity of the quantity theory of money hinges more on whether money possesses its own labour-value and less on the short-run determination of output. Ricardo attempted to hold on to the quantity theory of money as well as the view that

From this perspective, a vital difference between Thornton and Ricardo is that the former treated money as both a simple and a special commodity without being aware of a theoretical problem.⁷ Thornton's inconsistency might be related to his underlying view – as Hicks has persuasively argued – that a balance of payments disequilibrium caused, for instance, by a bad harvest is a short-run phenomenon, whilst a disequilibrium due to an excessive quantity of money is a long-run phenomenon.⁸ Nonetheless, there is little doubt that the difference between Thornton and Ricardo also related to the theoretical consistency of the classical mechanism and to the underlying treatment of value. In his own work, Viner overlooked the importance of value theory in interpreting Ricardo's concept of money excess; thus, he was able to claim that Thornton had provided a better exposition of the classical mechanism than Ricardo. It is shown here that things are considerably more complex when value theory is taken explicitly into consideration, thus putting Viner's argument in a different light.

2 Hume's and Ricardo's Automatic Mechanism

As is well-known, for David Hume money has a purely 'fictitious' value.⁹ Indeed, not only is money intrinsically valueless, but '[i]t is indeed evident, that money is nothing but the representation of labour and commodities, and serves only as a method of rating or estimating them'.¹⁰ Marx observed that, as a result of this fundamental view, Hume '[n]ever mentions the value of commodities and the value of gold, but speaks only of their reciprocal quantity'.¹¹ Thus, if money lacks intrinsic value, it follows that it only has relative exchange value, which is inevitably expressed as the proportion of the aggregate quantity of

money has its own labour-value. It might be true, as Green (1982) has claimed, that Ricardo's work was logically consistent, but, as this chapter shows, Ricardo was thereby led to argue some quite absurd things about the role of money in a capitalist economy.

7 A certain inconsistency in Thornton's thought was admitted – with reservations – by Hayek (1939, p. 46), despite his enormous admiration for Thornton.

8 See Hicks 1967.

9 See Hume 1955, p. 48. Green (1992, p. 37) rightly stresses this part of Hume's work and counterposes it to Smith's and Ricardo's derivation of money as a commodity with its own value. The point is, however, that if money is a commodity with its own value, implications would follow which would be incompatible with the quantity theory of money.

10 See Hume 1955, p. 37.

11 See Marx 1970, p. 164.

commodities to the aggregate quantity of money in circulation. In terms of contemporary economics, the exchange value of money is reflected in the price level, which is determined by the quantitative proportions of commodities to money.

To facilitate further analysis, it is useful to deploy some Fisher-type equations of exchange, simplified (without losing any generality) by assuming unit velocity and pure commodity money (gold). Hume's view was essentially that the 'fictitious' value of money is given by

$$(1) \quad Y / M = v / P$$

where M is the quantity of gold money, Y is real output circulated, Y/M is the exchange value of money, and P is an index of the price level. To derive a theory of the relationship between the quantity and the exchange value of money on this basis, it would obviously also be necessary to have a view on what determines M . But then, to ascertain what determines the quantity of money, it would be necessary to have a view of the functions of money. In this vein, Hume believed that money functions as means of circulation alone; money is '[o]nly the instrument which men have agreed upon to facilitate the exchange of one commodity for another'.¹²

The importance of this assumption would become even clearer if we were reminded of Marx's analysis of money's functions.¹³ For Marx, when money functions as means of circulation it belongs to, and remains exclusively within, the sphere of exchange; this would be in contrast to stored money which exits the sphere of exchange. If Marx's view is right, then the entire money stock of a country, M^T , would be equal to the quantity of money in circulation, i.e. $M^T = M$, only if money functioned solely as means of circulation. In other words, for M^T to be equal to M it would have to be assumed that fresh money supplies inexorably finished in circulation, thus continually expanding the country's active quantity of money. Only on this basis could Hume plausibly argue that the exchange value of money and the quantity of money were inversely related.¹⁴

12 See Hume 1955, p. 33. Note that Hume (1955, p. 41) also remarked that only active money, which was not 'locked up in chests', and only commodities which came to the market, and were not 'hoarded in magazines and granaries', participated in the determination of money's value. However, this implicit recognition of the function of hoarding played no role in his monetary theory.

13 See Marx 1976b, ch. 3, pt. 2.

14 When Hume's theory is approached in this manner, very little weight would be attached

The international aspect of Hume's theory was an outgrowth of his domestic monetary analysis: money which is means of circulation domestically is also means of circulation internationally. Complex money functions, such as hoarding (reserve formation), play no significant role in international transactions. Indeed, in Hume's famous analogy, money flows between nations in the manner of water between vessels, and seeks the same 'level' in all countries.¹⁵ Disturbances of the domestic quantitative proportions of commodities to money result in money having the wrong value in a particular country. Too much money, for instance, would lower money's value (raise prices); hence, it would encourage the import and discourage the export of commodities; thus, it would lead to the outflow of money. The adjustment would stop when the outflow of money would re-establish the correct 'level' among countries. The mechanism is automatic and smooth, and emphasises the lack of a special role for money in international transactions.

Ricardo differed profoundly from Hume insofar as he assumed that money and commodities actually had intrinsic value:

Gold and silver, like other commodities, have an intrinsic value, which is not arbitrary, but is dependent on their scarcity, the quantity of labour bestowed in procuring them, and the value of the capital employed in the mines which produce them.¹⁶

The same argument can also be found in Ricardo's more mature economic writings.¹⁷ Marx approved of it, and, as we shall see below, made it a foundation of his own monetary theory.¹⁸

From this starting point, Ricardo derived a complex version of the equation of exchange,¹⁹ which may be summarised as

to his celebrated 'transmission mechanism' which dealt with short-run real effects resulting from changes in the quantity of money, despite the emphasis accorded to it in the literature (see, for instance, Duke 1979, Mayer 1980, and Perlman 1987). Thus, Marx treated Hume's theory of the inverse relation between money and prices essentially as a black box, the 'transmission mechanism' being a mere embellishment (see Marx 1970, p. 161, footnote).

15 See Hume 1955, pp. 64–5.

16 See Ricardo 1951a, p. 52.

17 For instance, Ricardo 1951e, p. 352.

18 See Marx 1970, p. 170.

19 See Ricardo 1951d, pp. 55–8.

$$(2) \quad M = f(m, yY, v)$$

where M is the quantity of metallic money, m is the intrinsic value of money, y is the intrinsic value of real output per unit, Y is real output, and v is the velocity of money. For Ricardo, M varies inversely with m and v , and directly with the total value of transactions, yY .²⁰

As Hume had already argued, however, money also has exchange value, i.e. Y/M . Relating the intrinsic value of money, m , to its exchange value, Y/M (i.e. relating the intrinsic value of commodity money to the price level) is the most intractable problem faced by a monetary theory that is explicitly based on the labour theory of value. Suppose, for instance, that, other things being equal, the total value of output, yY , rose due to an increase in real output, Y (per unit value remaining the same). Then, according to Ricardo,

the value of money will rise on account of the increased use which will be made of it, and will continue permanently above the value of bullion, unless the quantity be increased, either by the addition of paper, or by procuring bullion to be coined into money. There will be more commodities bought and sold, but at lower prices; so that the same money will still be adequate to the increased number of transactions, by passing in each transaction at a higher value. The value of money then does not wholly depend upon its absolute quantity, but on its quantity relatively to the payments which it has to accomplish;²¹

Thus, for Ricardo, if the required M was not forthcoming to meet the needs posed by the increase in yY , the value of money, Y/M , would, 'on account of increased use', permanently exceed the intrinsic value of bullion, m .²² In his own terms, money would pass in exchange for a value higher than its intrinsic one, i.e. commodity prices would fall. In other words, for Ricardo, the value

20 Green stresses the importance of this relationship for the classical economists, and he calls it 'the law of monetary circulation' (see, for instance, 1992, p. 15). He considers the relationship as determining the quantity, or the supply of money. However, it makes more sense to think of it as a demand for money, i.e. as a quantity necessitated by the 'needs of trade'. With this in mind, the 'value' of money which, according to Ricardo, falls when money's quantity overflows circulation – as Green notes (1992, p. 85) – is actually money's exchange value.

21 See Ricardo 1951d, p. 56.

22 There is, inevitably, a problem of dimensions in directly comparing price to value, but the point made by Ricardo is clear.

of money in exchange (hence the level of prices) depended on the quantity of money relative to the quantity of commodities. That much, however, had already been said by Hume. The real problem for Ricardo was whether the putative divergence between Y/M and m would persist, given the presence of money's intrinsic value in the system. Alternatively, would the commodity value of money, m , act as an anchor for its exchange value, Y/M (the price level)?

Ricardo reconciled putative divergences between Y/M and m by relying on, first, the existence of undisturbed convertibility between coin and bullion, and, second, the absence of any role for money in exchange other than as means of circulation. Thus, in the case of an increase in Y , other things being equal, the fact that Y/M would presumably come to exceed m (i.e. commodity prices would fall) implies that gold bullion would be coined to its owner's advantage. Coining gold bullion would restore equilibrium in two ways; first, the available bullion would become more scarce, hence the value of bullion, i.e. m , would rise; second, the quantity of coin, M , would increase, and hence Y/M would fall (i.e. prices would rise).²³ The rise in m and the fall in Y/M would eventually re-establish equilibrium. This also makes certain that the price level would not be independent of the intrinsic value of money. For Ricardo, falls in Y , changes in M , and so on, could be analysed analogously. However, if convertibility between coin and bullion (or convertibility between circulating paper money and bullion, as during Ricardo's time) were interrupted, the equilibrating mechanism would simply not work. In that case, the exchange value of coin would become independent of the intrinsic value of bullion; therefore, the quantity of gold coin would permanently dictate prices.²⁴

It is apparent that forming money hoards, settling residual debt, making extraordinary purchases, and other 'special' functions of money, would be problematic for Ricardo's schema. The existence of hoards of metallic money would imply that economic agents are holding on to a particular monetary form of value, a process that would be at odds with the continuous and smooth readjustment of the value of bullion that is fundamental to Ricardo's schema. Similarly, the need to make sudden payments and purchases would entail the abrupt intervention of money in exchange, as would happen, for instance, if debts

23 See Ricardo 1951d, pp. 56–7.

24 This element of Ricardo's quantity theory appears to have influenced Marx's account of fiat money inflation (see Marx 1970, pp. 118–22). In Marx's account, the quantity of paper money 'passed for', or 'symbolised', a certain quantity of commodity money required by circulation. This view was predicated on the assumption that fiat paper money could not be hoarded, becoming 'useless scraps of paper' when not functioning as means of circulation (Marx 1970, p. 119).

were called up and no credit was forthcoming, or if natural disasters destroyed means of production and consumption. On such occasions, money would seem to be employed by economic agents because it has a generally acceptable social value, rather than because it is to someone's pecuniary advantage to use it. In sum, hoarding, paying, transferring wealth, and so on, constantly reassert the practical importance for economic agents to possess specifically money rather than commodities in general.

Allowing for international transactions did not materially alter Ricardo's analysis. At international equilibrium, commodity money is divided among nations according to the value of domestic transactions and money's velocity, so that it 'preserved everywhere the same value.'²⁵ Ricardo immediately added that commodity money, 'like other commodities' has its own intrinsic value.²⁶ Therefore, at international equilibrium there would be no divergence between Y/M and m . Since money would have the same value everywhere, there would be no advantage to merchants in shifting money between nations. Therefore, international equilibrium would be balance of trade equilibrium; trade among nations would be, in effect, barter.²⁷

The discovery of gold, or the supply of fresh money by banks of issue, other things being equal, would increase M , hence it would lower the exchange value of money, Y/M (i.e. it would raise the domestic price level). Since the value of bullion would remain temporarily the same, it would become advantageous to melt coin into bullion. This would make the domestically available bullion more abundant, and it would thus lead to a fall in the domestic intrinsic value of money. Since, however, the value of money abroad (both its intrinsic value and its value relative to commodities) would have remained unchanged, it would become possible to export bullion to a merchant's advantage. Export of bullion, however, was tantamount to a deficit in the balance of trade (indeed it was in and of itself a balance of trade deficit).

The export of bullion would lower the exchange value of money abroad (it would raise foreign prices); it would also raise money's domestic exchange value (it would lower domestic prices); thus, it would tend to return the system to equilibrium. The process would stop when the original excess

25 See Ricardo 1951a, p. 52.

26 Ricardo 1951a, p. 52.

27 In the *Principles*, Ricardo stated that the value of money could differ among countries (see 1817, p. 143). This, however, arose from perfectly explicable causes, such as tax, transactions costs, and so on, and did not lead to any problematic conclusions about the movement of money in general. At international equilibrium, money might have a different value between England and Poland, but it still did not move between the two countries.

quantity of money would be eliminated and trade equilibrium would be re-established. Equilibrium in the value of money would be restored at a slightly lowered level globally (slightly raised prices) reflecting the increase in the global amount of money. Ricardo considered this outcome to be a weakness of a purely metallic money. Thus, he advocated replacing gold with paper money whose quantity could be managed to keep money's value constant.²⁸

Ricardo's international adjustment mechanism also relies on the assumption that money has no special role to play in international exchange. Money moves between countries as a simple commodity, i.e. only when disparities between money's domestic and international value create the possibility of making a pecuniary gain by sending money abroad. Such disparities in value necessarily imply that the quantity of money is excessive (redundant) in one or more countries. The disparities would be eliminated by re-establishing the proper proportions between commodities and money across the world. By this token, a balance of trade deficit is the result of excessive money in circulation, and it would be automatically corrected by exporting the excess of money.

The problem with Ricardo's (and Hume's) theory is that, in practice, the export of money frequently appears to be the result of necessity and not at all of choice for both individuals and countries. At a further remove, international payment imbalances also frequently appear to be unrelated to a putative excess of money over commodities domestically. Bad harvests, for instance, would induce a balance of trade deficit, thus necessitating the outflow of gold to make payments abroad. To Ricardo's contemporaries, therefore, it seemed not at all unreasonable to assume that money was a special commodity, required for its unique ability to pay and to transfer value, rather than an ordinary commodity traded only when merchants could make a pecuniary profit from value divergences.

Ricardo, however, could not accommodate a special role for money within his automatic mechanism. If, for whatever reason, nations found it *necessary* to use money in their commercial transactions, it would follow that, on those occasions, the movement of money would not be caused by disparities among the value of money in different countries. By the same token, the proportionate division of money among the nations of the world, and its domestic proportions relative to commodities, would not be sufficient to explain the export of money, if the latter seemed to be obligatory for a nation. If countries found it *necessary* to export gold, it was conceivable that countries were *compelled* to do

28 See Ricardo 1951d, p. 57.

so even in situations in which the putative equilibrium in the balance of trade and in the division of commodity money across the world actually held. But then the mechanism would lose its generality.

Ricardo was alive to the importance of this point: he asked Thornton to explain why foreigners should refuse to accept English goods and would demand money instead; he cut down the hapless Bosanquet for daring to suggest that England was ‘compelled’ to import corn when the harvest was bad; he employed his remarkable analytical powers to befuddle Malthus, who knew that there was something wrong but could not tell exactly what.²⁹ In a revealing part of his correspondence with Malthus, Ricardo insisted that international flows of money should be explained in a way compatible with economic principles, i.e. by treating money as an ordinary commodity.³⁰ The adjustment mechanism, in other words, must assume that money is exported solely because it is advantageous to do so. For Ricardo, this applies even when debts have to be settled abroad, as he tells Malthus:

It rests with you therefore to prove that a case can exist when it may become the *interest* of a nation to pay a debt by the transmission of money rather than in any other mode, when money is not the cheapest exportable commodity, – when money (taking into account all expences which may attend the exportation of different commodities as well as money) will not purchase more goods abroad than it will at home.³¹

In sum, it was fundamental to Ricardo’s theory to assume that the export of money is to be explained ultimately by the pecuniary interest of merchants. But for such an interest to exist, the value of money at home has to be lower than its value abroad. Therefore, the original state of equilibrium in the value of money must have been necessarily disturbed. It follows, *ipso facto*, that money’s domestic quantity is too large relative to commodities, and it is the excess of money which is exported. This is logical proof; do not defend yourself by arguing that people cannot see what is in their interests, Ricardo declared to Malthus, because that statement could apply to all propositions of political economy.³²

Despite his egregious analytical and debating powers, Ricardo did not resolve the problem, and on occasion he had to retreat. Thus, he admitted to

29 See, respectively, Ricardo 1951a, p. 61; Ricardo 1951c, p. 208; Ricardo 1951f, p. 26.

30 See Ricardo 1951f, pp. 64–5.

31 Ricardo 1951f, p. 64, original emphasis.

32 See Ricardo 1951f, p. 64.

Malthus that payment of a money subsidy abroad could lead to the outflow of money, if the subsidy was large.³³ More significantly, in deriving his celebrated law of comparative advantage in international trade, he accepted that, in the case of a two country two good model, it is possible that the export of money could take place, if technical change had occurred that had upset the balance of trade and created a trade surplus in favour of one country. He was quick to add, though, that if the model was expanded to include more commodities, then the flows of exported money would be small. The implication is that the export of money under such conditions is insignificant.³⁴

3 Marx's Analysis of Domestic and International Adjustment

The contrast between Ricardo and Marx is pronounced in this respect. In his monetary analysis Marx assumed, similarly to Ricardo, that money (and commodities) have intrinsic value (labour time).³⁵ Prices are the ratio of commodity values to the per unit value of money.³⁶ Thus, the commodities that circulate per period have a total price, P^T , which is defined by the value of total output and the per unit value of the money commodity, i.e. $P^T = Y / m$. On this basis, also assuming that there are no delayed obligations to be settled and that money's velocity in circulating commodities is v , the equation of exchange that could be written for Marx looks similar to that for Ricardo,³⁷

33 Ricardo 1951f, p. 73.

34 See Ricardo 1817, p. 141.

35 Ricardo's and Marx's labour theories of value are not identical. For Ricardo, quantities of labour embodied in commodities do not determine their 'absolute' or 'real' value, but 'govern' their exchange ratios, or relative prices. By this token, variations in relative prices which are not temporary indicate alterations in values, as Schumpeter has noted (1954, p. 597). This argument has a bearing on Ricardo's account of the implications of changes in the intrinsic value of money: increases in the available quantity of bullion would reduce the scarcity of bullion, hence would lower its value. For Marx, the quantity of labour embodied in commodities is their absolute value. Changes in relative market prices do not necessarily indicate changes in the level of absolute value. Furthermore, according to Marx (1969, pp. 164–72), Ricardo was concerned merely with determining the quantity of value (i.e. the exchange ratios among commodities) and did not specify the social forms of value that are separate from value's labour substance. Marx in his own analysis (as in 1976b, ch. 1) took pains to demonstrate the necessary connection between the forms of value and money, indeed to show that money is the independent form of absolute value.

36 See Marx 1976b, chs. 1, 2, 3.

37 For a fuller discussion of this, see Lapavistas 1991.

$$(3) \quad M = P^T / v = yY / Vm$$

Since money's velocity is a technical and institutional datum of the process of exchange and given that labour values are determined in production, the equation of exchange merely signifies the amount of money that is socially necessary in the sphere of circulation for every level of output. By rearranging and assuming unit velocity, the exchange value of money for Marx may thus be written as:

$$(4) \quad Y / M = m / y$$

Furthermore, as was argued above, for both Hume and Ricardo, the entire money stock functions as means of circulation, and thus $M^T = M$. However, for Marx, hoarded money, M^H , does not belong to circulation.³⁸ Consequently, $M^T = M + M^H$, and the issue for theory becomes how to specify the division of M^T into its component parts so that M corresponds to the necessary amount of money in circulation.³⁹ For Marx, the special role played by money in the economy is a vital factor in tackling this issue: 'The hoards thus act as channels for the supply or withdrawal of circulating money, so that the amount of money circulating as coin is always just adequate to the immediate requirements of circulation'.⁴⁰ Marx did not develop a complete theory of the money supply along these lines, but he did provide the elements of an answer by locating several sources of hoarding in the reproduction of the total social capital.⁴¹

As I have argued, for Ricardo, furthermore, it is important to this type of analysis to establish that the intrinsic value of money provides an anchor for money's exchange value (i.e. for prices). At one remove, the problem is implicitly resolved in (4) by posing Y/M as equal to m/y . It is evident, however, that this is only tenable if commodities and money always exchange at value. If, for instance, the price and the value of commodities diverge as a result of short-term fluctuations of market demand and supply, the exchange value of money

38 See Marx 1976b, pp. 231–2.

39 The similarities between Marx's analysis and the Cambridge approach to monetary theory are apparent in the emphasis on hoarding. The Cambridge tradition, however, treats hoarding as a factor determining the velocity of the total money stock rather than its division. This is the approach which Green (1982 and 1992) has also adopted with reference to Marx's theory.

40 See Marx 1970, p. 136.

41 See, for instance, Marx 1978, pp. 423–4 and 568–9.

would also diverge from its intrinsic value, as Marx was fully aware.⁴² The price level and the value of the money commodity could move in ways that would not be directly related to each other.

Ricardo's solution for this problem, as we have already seen, took the form of an elaborate automatic mechanism based on, firstly, free convertibility between coin and bullion, and secondly, money functioning solely as means of circulation. Insofar as a solution can be found in Marx's work (by no means a full one), the indications are that Marx, unlike Ricardo, tended to think of such divergences as regular phenomena of the trade cycle. With the benefit of observing the intervening half-century, during which the trade cycle had emerged as a fixture of the world market, Marx did not treat pronounced short-term fluctuations in the exchange value of money as extraordinary monetary events, similar to those of the Wars with France, which were the phenomena that concerned Ricardo. On the contrary, Marx tended to see such fluctuations as an aspect of the general tendency of the capitalist economy to economic crisis, the roots of which are to be found in the dynamic of capitalist production itself. Equally significantly, for Marx, the analysis of how the value of money is rebalanced could not be done without explicitly considering the flows of credit, an element that is entirely absent from Ricardo's theoretical abstractions.⁴³

A typical instance of the fluctuations in the value of money that Marx considered important would be given by the behaviour of prices in the course of a boom. Thus, during a boom, demand would grow, sustained by the expansion of credit, leading to the rise of prices and thus reducing the exchange value of money.⁴⁴ The turning point of the boom, which for Marx is connected to industrial overproduction and a lowering of the profit rate, is inevitably accompanied by credit deflation, and a rush for cash. A commercial crisis might follow in which money would be universally demanded as means of payment,

42 See Marx 1981, pp. 279–301.

43 The discussion below is in substantial agreement with Green's claim that Marx left no complete theory of the short-run determination of output (Green 1992). One point worth emphasising, however, is that within the Marxian framework such a theory requires the prior analysis of the role of credit in underpinning capitalist production and exchange. By this token, the analysis of regular short-run price movements requires the prior analysis of credit. Purely money-based theories of short-run output under conditions of developed capitalist production are not satisfactory. This is a weakness of Keynesian theories of effective demand, admired by Green (for instance, 1992, p. xi).

44 For a developed contemporary Marxist analysis of the cyclical behaviour of capitalist accumulation, the role of credit and the significance of price level fluctuations in restoring the exchange value of money, see Itoh 1988, ch. 9.

as well as being hoarded for reasons of precaution and speculation. As the rush for cash would unfold, commodity prices would collapse, thus raising the exchange value of money. In short, the readjustment of the value of money under a commodity money system would necessarily entail pronounced – and even violent – price fluctuations. The readjustment of money's value would have real costs, such as company bankruptcies and unemployment, mostly inflicted through the deflation of credit. Furthermore, there would be no *a priori* guarantee that the rise in the exchange value of money during a slump would accurately compensate for its fall during a boom.

The specifically monetary dimensions of this process of readjustment would be related precisely to those special roles and functions of money that were so problematic for Ricardo's monetary theory. The sudden rise into prominence of money acting as an element of hoard, of debt settlement, and of performing generally acceptable transfers of value would be a characteristic result of the contraction of credit. Money would be catapulted into prominence and its exchange rate with commodities would be changed because credit would collapse. At such times the possession and use of money would be perceived by economic agents as a dire social *necessity* and not at all a matter of choice:

The bourgeois, drunk with prosperity and arrogantly certain of himself, has just declared that money is a purely imaginary creation. 'Commodities alone are money', he said. But now the opposite cry resounds over the markets of the world: only money is a commodity. As the hart pants after fresh water, so pants his soul after money, the only wealth.⁴⁵

Marx left no precise theoretical formulation of how the swing to cash allows the intrinsic value of money to provide a 'centre of gravity' for money's exchange value. He emphasised mostly the abrupt nature of the process, as well as its close connection to trade cycles and to economic crises originating in production. This, on a theoretical plane, contrasts poorly with Ricardo's elaborate and elegant resolution. It is, however, to Marx's credit that he incorporated some clearly important functions of money as well as some well-recognised patterns of monetary crisis into his theoretical system.

In a similar vein, Ricardo's automatic mechanism of international adjustment was also rejected by Marx. The gist of Marx's critique is that money is a special commodity in the international sphere, as it is in the domestic sphere.

45 See Marx 1976b, p. 236.

Money in the international arena is ‘world money’ acting as the means of payment settling trade imbalances among nations, as well as in other instances in which ‘the customary equilibrium’ between nations is disturbed. ‘World money’ is also used to effect capital and other wealth transfers in the world market, ‘[w]henver it is not a matter of buying or paying, but of transferring wealth from one country to another, and whenever its transfer in the form of commodities is ruled out, either by the conjuncture of the market, or by the purpose of the transfer itself’.⁴⁶

In order to participate in world trade, countries have to possess a reserve of world money, which is not to be confused with the domestic reserve aiming at the needs of domestic circulation.⁴⁷ Marx’s underlying view is that no automatic balancing mechanism among nations in the world markets exists at all. Indeed, he repeatedly pointed out that balance of payments crises, and the attendant drain of gold in his time, tend to involve all capitalist countries successively. To Marx, this indicated that ‘the root of the problem is actually not the balance of payments at all’, but rather ‘overproduction, fostered by credit and the accompanying general inflation in prices’.⁴⁸ ‘Real’, rather than monetary, factors typically cause balance of payments disequilibria. Credit deflation is characteristic of the resulting international crises, and compulsory international movements of money take place in the settlement of balances between nations.

Finally, Marx criticised Ricardo for ‘arbitrarily arranging’ the actual economic phenomena of the period of the Restriction of convertibility of Bank of England notes during 1797–1821 to refute the existence of ‘real’ destabilising influences on the balance of trade (such as harvest failure) and to ascribe price phenomena exclusively to monetary excess. By the same token, Marx, unlike other classical political economists, did not disparage the emphasis laid by the Mercantilists on the exceptional role played by gold in international capitalist trade.⁴⁹

However, it is notable that Marx’s work does not contain a theoretical mechanism connecting international to domestic monetary phenomena on the basis of the labour theory of value. The relation between domestic means of circulation and reserves to international means of payment and reserves, was suggested rather than analysed by Marx. No proper theoretical analysis of the behaviour of ‘world money’ and its connection to domestic money on a global

46 See Marx 1976b, pp. 242–3.

47 See Marx 1981, pp. 701–2.

48 See Marx 1981, pp. 622–3.

49 See Marx 1970, pp. 158–9.

scale is to be found in Marx's work. This is, once again, in poor contrast to Ricardo's polished theoretical treatment of these questions. Even so, the tenor of Marx's discussion implies that a narrow monetary model resolving the issues in the manner of Ricardo would mislead rather than clarify. Marx's stress on the special character and functions of money in capitalist circulation indicates that broader theories, incorporating the analysis of production itself and the role of credit (as well as the significance of the economic role of the nation state) are necessary in order to connect domestic to international monetary phenomena.

4 Thornton's Analysis and Viner's Reconstruction of the Adjustment Mechanism

Thornton's analysis of the effect of 'real', as distinct from monetary, factors on the balance of trade, the rate of exchange and the price of gold, is to be found in chapter v of his book. It should be stressed that in that chapter Thornton did not employ Hume's mechanism, though he clearly knew it.⁵⁰ Thornton's argument was, rather, that imports and exports naturally balance in the long run because it is simply not possible for any country either to accumulate debt or to lose bullion indefinitely.⁵¹ In the short run, however, the natural balance could be disturbed. Bad harvests could lead to a balance of trade deficit, which could not be promptly eliminated either by economising on imports, or by expanding exports. The volume of bills on the importing country would rise, hence the exchange rate would fall. Thus, the demand for gold to send abroad would rise, leading to a higher market price for gold. This would create an incentive to evade the law which forbade the melting down of coin, and, as melting took place, the Bank of England would inevitably lose bullion reserves. Thornton, however, did not suggest that the export of gold would, through either price or income effects, restore equilibrium in the manner of Hume.

Contractionary policy by the Bank of England, according to Thornton, could arrest short-run drains of gold caused by 'real' factors, and thus restore external payments equilibrium. In making this claim, and partly in relation to Adam Smith's discussion of monetary circulation, Thornton put forth the following idea:

50 See Perlman 1986.

51 See Thornton 1939, p. 145.

At the time of a very unfavourable balance of trade (an event which Dr Smith leaves totally out of his consideration), it is very possible, as I apprehend, that the excess of paper, if such is to be called, is merely an excess above that very low and reduced quantity to which it is necessary that it should be brought down, in order to prevent the existence of an excess of the market price above the mint price of gold.⁵²

Thus, for Thornton, an excess of paper, 'if such is to be called', is not part of an automatic mechanism for re-establishing the value of money. Rather, Thornton made the important practical point that contractionary monetary policy would correct the external imbalance regardless of cause. Even so, he further argued that a sharp contraction should be avoided on the grounds that it would cause great damage to production in the country. It would be better for Britain simply to possess a large hoard of gold, and to sit out the drain by tolerating a reduction in the Bank of England's reserve ratio.⁵³ Viner adopted Thornton's tentative notion of excess of money under the above conditions, incorporated it into the automatic mechanism, and proceeded to apply it to deficits arising out of capital transfers which Thornton never explicitly discussed.

Thornton's analysis in chapter v of his book contained some confusion on the behaviour of the money price of gold expressed in gold coin in the course of international adjustment (noted in a different context by Horner), and Ricardo was quick to pounce: Thornton had made a simple error when he suggested that a rise in gold demand could increase the gold price of gold.⁵⁴ Nonetheless, the fact that Ricardo was concerned to find supplementary arguments to rebut precisely this part of Thornton's work indicated that a sensitive point had been touched. Thus, Ricardo asked Thornton to explain why foreigners should refuse to accept English goods and demand money instead.⁵⁵ Far from providing better foundations for the mechanism of international adjustment, Thornton had actually argued something quite problematic for it: money behaved as a special commodity in international capitalist exchange:

The country, therefore, which has the favourable balance, being, to a certain degree, eager for payment, but not in immediate want of all that supply of goods which would be necessary to pay the balance, prefers gold

52 Thornton 1939, pp. 150–1.

53 Thornton 1939, p. 152.

54 See Horner 1957, pp. 36–40; Ricardo 1951a, p. 60.

55 Ricardo 1951a, p. 61.

as part, at least, of the payment; for gold can always be turned to a more beneficial use than a very great overplus of any other commodity.⁵⁶

In chapters VIII and IX of his book, Thornton analysed fluctuations in the money supply, and expounded a mechanism very similar to Hume's. He gave a rightly lauded account of how expansion of credit money could have 'real' effects on capital accumulation, but could also lead to a balance of trade deficit and to a fall in the exchange rate through higher domestic expenditure and prices. But these claims by Thornton were not problematic for Ricardo. His fire was attracted by Thornton's non-Humean discussion of 'real' factors operating on the balance of trade, and the resulting necessity to send money abroad. Such factors, and the resultant role of money, were theoretically intractable within Ricardo's mechanism of international adjustment. Thornton, however, was not even aware of the theoretical problem.

Viner's opinion, namely that Thornton had applied 'the Hume type of explanation generally to any type of disturbance of the balance of payments', has been influential in providing a classical pedigree for modern theories of automatic adjustment of international balances.⁵⁷ Viner summarised Ricardo's theory of international monetary circulation as follows:

- (1) Gold will be exported only if it is relatively redundant as compared to other countries.
- (2) An export of gold is always the *cause*, never the *effect*, of an unfavourable balance of trade.
- (3) A failure of the harvest, or the grant of a subsidy or loan to a foreign country, does not create a redundancy of currency, that is, does not make the existing level of prices in the country suffering the failure of the harvest, or granting the subsidy or loan, too high, and, therefore, does not result in the export of gold.⁵⁸

It has been a key point of this chapter that redundancy, or excess of money relative to domestic commodities, was indeed fundamental to Ricardo's (and Hume's) mechanism. However, it has also been argued that if excess of money

56 See Thornton 1939, p. 151. Thornton also offered an insightful discussion of hoarding and the variability of velocity in chapter III of his book. Thornton's stress on hoarding was quoted approvingly by Marx (1987, p. 195).

57 See Viner 1937, p. 295.

58 See Viner 1924, p. 196, original emphasis.

is a fundamental part of the automatic classical mechanism, there is a fundamental theoretical problem in reconciling the idea of money redundancy with occasions in which money appeared to be exported out of necessity. The problem is particularly acute on occasions when 'real' factors, such as bad harvests, cause balance of trade deficits. Viner's resolution for this problem, elaborating on Thornton's aside on money excess, is worth quoting at length:

The first of these propositions is unquestionably sound. But it requires more careful definition than is given to it by Ricardo. Two countries have the proper amounts of currency relative to each other if the relative price levels in the two countries are such that trade between the countries results in an even balance of international payments. Any cause which makes the price level of a country too high to bring about an even balance of international payments, whether it be an over-issue of paper currency, or a crop failure, or the grant of a foreign loan, or a sudden decline in the relative demand of foreign countries for its products as compared to its demand for foreign commodities, makes currency redundant in that country.⁵⁹

For Viner, then, the 'proper' quantity of money is determined entirely by reference to the balance of payments, using the intervening step of the price level. He evidently thought of this point as the true general principle of the automatic mechanism.⁶⁰ If a country could not balance its payments it followed that its price level was too high, which meant that its quantity of money was too large. Arguing backwards, as it were, Viner identified a common element between 'real' and monetary factors operating on the balance of international transactions, i.e. the very existence of a deficit. Consequently, the domestic price level was too high in all such instances, and the quantity of money too large.

Viner's rejection of Ricardo's second and third propositions relied on the above view of the 'wrong' level of prices. Prices were 'wrong' if there was a balance of payments disequilibrium, and if they remained 'wrong', foreign

59 Ibid.

60 Viner has been criticised for making price levels the key variable of the adjustment mechanism (for a summary, see Staley 1976). By his own admission, he underestimated the role of reallocation of domestic resources in restoring external equilibrium (see Viner 1937, p. 306). Mason, who agreed with Viner's opinion on Thornton, has shown that price levels were not the only variable to be found in the classical writings on the mechanism (Mason 1956). Nevertheless, there is little doubt that price level changes were the main factor for the classical economists.

loans or external shocks could not be made good by changes in the volume of exports and imports.⁶¹ Therefore, appropriate money movements had to take place, correcting the price levels and restoring equilibrium, and thus the automatic mechanism retained its general applicability. Viner finally argued that, perhaps, Ricardo had 'an exaggerated notion' of the difficulty of exporting gold, and did not appreciate that gold could settle debts promptly and at the same nominal value.⁶²

However, if we think of Viner's argument in the classical terms of the value of money, it becomes evident that he solved Ricardo's problem by making the exchange value of money unrelated to the domestic proportions of commodities to money. The exchange value of money would be 'wrong' if the trade balance was in deficit, even though the domestic proportion of commodities to money could be 'right' relative to the rest of the world. The problem is that, if Viner's argument holds, it would follow that the equilibrium of the global system would have no necessary connection to the underlying reality of output levels and velocities in each country. Yet, the presumed necessary connection was of vital importance to both Hume and Ricardo, as we have seen. Specifically, in Ricardo's schema, international equilibrium implies the establishment of the correct proportion of commodities to money for each country of the world, which also means that the exchange value of money is brought in line with its intrinsic value across the world. Similarly, in Hume's schema, money seeks its proper 'level', consonant with the proper quantitative division of commodities to money across the world. In Viner's formulation, in contrast, there is no foundation for the globally 'correct' exchange value of money, other than the unexplained fact of the existence of balance of trade equilibrium. That is not an effective defence of the classical automatic mechanism of international adjustment.

Conclusion

Hume and Ricardo attempted to construct a theoretical mechanism through which the domestically established exchange value of money found a common level across the world market. The mechanism equalised the domestic proportions of commodities and money for different countries, and adjusted international balances. This theoretical edifice functioned satisfactorily, provided

61 See Viner 1924, pp. 196–8.

62 Viner 1924, pp. 198–200.

that money was a simple commodity and a plain means of circulation. On this basis, Ricardo was also able to make the equilibrium exchange value of money consonant with the money's intrinsic, quantity-of-labour value.

The classical mechanism inevitably faced difficulties in accommodating phenomena in which money functioned as a special commodity, for instance, in hoard formation, in international value transfers, and in international and domestic debt settlement. Ricardo's bizarre insistence that money is exported only when its quantity is excessive domestically, is a corollary of the need to treat money as a simple commodity to support the coherence of the mechanism. Ricardo attacked Thornton because he stressed the special role of money in international exchange, thus highlighting the underlying theoretical weakness of the mechanism. Viner ignored entirely the value dimension of Ricardo's analysis, and corrected the weakness of the mechanism by assuming it away.

Marx, despite also starting from a commodity money with its own labour-quantity-value, rejected Ricardo's domestic quantity theory of money as well as the automatic mechanism of international adjustment. In doing so, Marx's work lost the elegance and apparent completeness of that of Ricardo. However, Marx's analysis was able to stress precisely the monetary phenomena which Ricardo found so difficult to incorporate into his theory. Marx further indicated that a broader theory, incorporating an analysis of instability of production and fluctuations of credit would be necessary to explain imbalances in international transactions. For this reason, his less elegant monetary work retains more relevance than Ricardo's.

Money and the Analysis of Capitalism: The Significance of Commodity Money*

1 Introduction¹

In Marx's work, money is the universal equivalent; in the first instance, this is one commodity that comes to represent value through the spontaneous action of the other commodities. Marx put forth this view despite being fully aware of non-commodity forms of money. After all, by the time he began to write on monetary issues, John Law's experiments with credit money were more than a century old, the experience of the French Assignats had been widely analysed, and the Banking-Currency controversy had for long delved into the nature of credit money.

There has been criticism of Marx's approach to money in recent years on the grounds that it burdens monetary analysis with the 'ghost of gold', or that it identifies the value of money with the value embodied in the money commodity.² In contrast, this chapter emphasises the continuing relevance of the analytical premise of commodity money, i.e. money that has value determined in production as embodied abstract labour (intrinsic value). Part 2 of the chapter shows that with commodity money as the starting point, analysis of non-commodity money could be undertaken without contradicting the labour theory of value. Specifically, it is shown that the roots of non-commodity money – fiat and credit – are found in the nature and functions of commodity money. Performing the functions of money encourages the development of money's form, leading to the emergence of several types of non-commodity money.

Part 3, in turn, discusses the significance of the development of the form of money for determining the exchange value of money (the inverse of the price level). The aim is to establish theoretically the adequacy of non-commodity

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1 Thanks are due to B. Fine, M. Itoh, A. Saad-Filho and M. Nishibe for comments on the manuscript. All errors are my responsibility.

2 See, for the former, Lavoie 1986 and Wolfson 1988; for the latter, see Foley 1982a and 1983b.

forms of money for the function of means of exchange. Analysis of the relationship of the value (abstract labour) of commodity money to its exchange value provides guidelines for determining the exchange value of non-commodity forms of money. Moreover, the value (abstract labour) of commodity money could act as anchor for the exchange value of non-commodity money.

Nonetheless, it is also shown below that anchoring the exchange value of non-commodity money takes place in very different ways for fiat and credit money. This issue is explored by considering the factors determining the quantity of, respectively, fiat and credit money in circulation; it is demonstrated that differences in quantity determination have important implications for their respective exchange values, and for the regulating role played by commodity money. In this respect, the validity of the quantity theory of money needs to be reconsidered under certain conditions.

2 **Intrinsic Value of Money: Adequacy of Commodity Money for Performance of Money's Functions and Evolution of the Form of Money**

Commodity money (for the purposes of this chapter, gold) possesses intrinsic value determined by socially necessary abstract labour embodied in it in the process of production.³ Gold's possession of intrinsic value is critical to its ability to perform the functions of the universal equivalent.

2.1 *Measure of Value*

The money commodity functions as measure of value of other commodities; at a further remove, the conventional division of gold into standard coins (units of account) allows values to be expressed as prices. Throughout this chapter, whenever the value of money is referred to without qualification, the intrinsic value of a standard gold coin, m , is implied. If it is further assumed that commodities exchange at value (relative prices are proportionate to ratios of embodied labour), a commodity's money price would be the ratio of commodity value to the value of money (i.e. its direct, or 'value' price).

Moreover, the money price of total commodity output would be equal to the ratio of the value of output to the value of money. From this perspective

3 The discussion of whether value is created in production or in exchange, and the conceptual subtleties involved, are entirely outside our remit. However, this chapter obviously adopts an 'orthodox' view, namely that abstract labour is the substance of value that is created in production under capitalist conditions (see Fine and Harris 1979, ch. 2, or Itoh 1988, ch. 4).

ive, the measurement of value at the aggregate level would not be qualitatively different from its measurement at the individual level. Since commodity and money values are determined in production, it follows that commodities have direct prices before they come to market, a point which Marx thought of paramount importance in his critique of the quantity theory of money.⁴

If, in contrast, money did not possess intrinsic value (we shall call all such forms of money valueless) it would be evident that money prices could not result from the simple division of commodity and money values. The analysis of valueless money would appear to reach an impasse quite quickly, if the measurement of value took its cue from commodity money. However, further analysis of the performance of value measurement by commodity money reveals that this appearance is deceptive – there would be no fundamental problem with value measurement, if money became valueless.

Specifically, and at one remove, under conditions of capitalist production and with differing compositions of capital, it is clear that commodities could not actually exchange at direct prices, if all capitals are tendentially to earn the same rate of profit. For profit rates to equalise across sectors, the appropriate rendering of commodity values into price must take place through forming prices of production, rather than direct prices. The point is, though, that forming prices of production is determined by production costs and the general rate of profit, rather than by the intrinsic value of the money commodity.

Put differently, the incessant movement of capital in search of higher profit (which is the real process behind the formation of prices of production) could potentially occur for prices set in terms of valueless money, as well as for prices set in commodity money. The intrinsic value of the latter is not a determining aspect of the rendering of commodity value as price of production. The conclusion to draw at this stage is that expressing value as price under expressly capitalist conditions must be understood as complex process, rather than as simple (and highly abstract) division of commodity value by money value. By this token, the fact that a certain form of money would not possess intrinsic value would not be, in itself, reason enough why such money would not be able to render commodity value into price.

An immediate objection might be that under capitalist conditions, commodity money would still render value into price through a simple division except that this would happen at the aggregate level, i.e. the total price of production would be total value divided by the value of money. At the risk of

4 See Marx 1976b, ch. 2.

running into the quicksand of the 'transformation problem', there are two reasons why this objection would still not be valid.

First, if gold functioned as money, the value of the output of the gold industry would also be subject to the transformation of value into price. However, the process of value transformation would in this case be highly peculiar. The first point to note is that since the gold producer could simply buy with the (coined) output, the problem of transforming the value of gold output into price would not arise at the point of output sale.⁵ The problem would still exist, however, for the value of the inputs and of the labour power that would be bought by the gold producer: their prices would still not correspond directly to their values.

It follows immediately that the gold industry would not be exempt from the general tendency toward the equalisation of profit rates: on average, the surplus gold output extracted through each completion of the circuit of capital employed in the gold industry would tend to reflect the average rate of profit, rather than the surplus value embodied in the process of production. Consequently, a price of production would be implicit for gold, even though its money price (in terms of itself) would obviously be one. It also follows that, in general, the total price of production would still not result from the simple division of total value by the value of commodity money.

Second, and at a still lower level of abstraction, in capitalist circulation commodities do not exchange at prices of production, but at market prices (without even considering the existence of monopolies, rent, taxes, financial asset prices, and so on). There is no reason at all why the market price of output should at all times equal the value of output divided by the value of money. The most that one could argue would be that prices of production would act as the centre of gravity (perhaps an average) for market prices. How the averaging mechanism would work, however, is still an unresolved issue in political economy, and it might involve the destruction of capital and commodities.⁶ For the purposes of this chapter, the fundamental conclusion would, however, remain: even if money were a commodity, the rendering of the value of total output into price would never be the result of simple division of commodity value by the value of money.

In sum, there are successive levels of meaning to the measurement of value and to its rendering into price. These correspond, at least, to forming direct

5 The problem of seigniorage could be set aside without loss of generality; the problem of ground rent (absolute and differential) could also be ignored since it does not contradict the general argument regarding value and price put forth in this chapter.

6 See, for instance, Itoh 1988, ch. 9.

prices, prices of production, and market prices. The important conclusion for our purposes is that the intrinsic value of the money commodity would not be critical to the rendering of value into price under capitalist conditions. There is no reason why valueless money could not, in principle, facilitate the process of expressing value into price in capitalist circulation.

2.2 *Means of Exchange*

The universal equivalent must also circulate commodities, i.e. it must function as means of exchange.⁷ Given that Marx derived money as the commodity *par excellence*, it might sound paradoxical to state that commodity money is less than fully adequate for performance of the circulating function. And yet the reason for its deficiency is evident: circulation of gold coin would inevitably entail loss of substance through abrasion, and might also encourage sweating, or clipping and rubbing of coins. Consequently, circulating commodity would necessarily possess less material substance – and therefore less value – than it purports to. This inherent weakness demonstrates clearly and simply that a pure commodity money is not necessarily, and at all times, the most adequate independent form of value.⁸

The actual performance of the function of means of exchange by commodity money indicates the path of development of the form of money, and roots the emergence of symbolic fiat money in commodity money. Metallic money, as even a cursory glance at monetary history shows, is able to continue circulating goods despite its inevitable degradation through use. Marx pointed out that this phenomenon emerges because, in the act of exchange, money appears fleetingly between two commodities, hence its material substance is unimportant.⁹ Consequently, degraded gold coins are still able to function as full-weight coins in circulation – in effect degraded coins symbolising full-weight coins. In

7 Marx (1976b, chs. 2 and 3) differentiates between narrow means of circulation and broad means of exchange; the latter also includes means of payment. This section of the chapter is concerned exclusively with narrow means of circulation, though immediately below means of payment will also be considered.

8 Throughout the eighteenth century (a period of intense circulation of commodity money), monetary theory was heavily preoccupied with the various problems implicit in ‘circulation’ of low quality, primarily those regarding the rate of exchange between two national currencies. Monetary practice tried to avoid these problems by sewing up money in purses, or, ultimately, by creating institutions such as the Bank of Amsterdam, which issued deposits fully backed by reserves of precious metals and settled transactions through the transfer of entries among deposits.

9 See Marx 1976b, pp. 226–7.

other words, symbolic money emerges spontaneously in commodity exchange and in the first instance it is simply commodity money that is degraded through use. The symbolisation of commodity money by itself opens a path for the state to issue paper money (or base metal money) containing negligible intrinsic value. Such valueless money properly symbolises metallic money and avoids the problems of degradation of commodity money's substance.¹⁰

Nonetheless, the adequacy of valueless fiat money for the task of circulating the total output of a capitalist economy is far from being immediately obvious. Its adequacy would depend, above all, on the manner in which the exchange value of fiat money (i.e. the inverse of the price level) would be determined. It is shown in Part 3 below that the intrinsic value of commodity money provides the foundations for theoretically determining the exchange value of fiat money. For the broader purposes of this chapter, it is apparent that commodity money helps explain the spontaneous emergence of fiat money in a capitalist economy. As is shown below, commodity money also grounds the exchange value of fiat money in the abstract labour embodied in commodities in the process of production.

2.3 *Money as Money*

The most complex issues regarding the adequacy of money's form for the performance of money's functions arise in connection with hoarding, transfer of value in settlement of obligations (typically debt), and international payments. These functions of money were subsumed by Marx under the rubric 'money as money'.¹¹ It is clear at the outset that commodity money which possesses intrinsic value is immediately adequate for the purposes of being hoarded, transferring value, and settling balances among nations at all times. However, this does not mean that only commodity money is capable of performing these functions. Valueless money could also act 'as money', but – and this is where the analytical difficulties lie – broader circumstances must be suitable for, indeed they must necessitate, the functioning of valueless money 'as money'.

Note that Marx reserved a special place for gold in this context.

[Gold] [f]unctions as money when its function, whether performed in person or by a representative, causes it to be fixed as the sole form of value,

10 As Adam Smith showed, lack of intrinsic value also means that society is spared the labour costs of extracting the means of exchange from the bowels of the earth (Smith 1904, vol. I, bk. II, ch. II, pp. 301–10). The gain to society is substantial, considering that means of exchange simply facilitates the circulation of revenue without adding to it.

11 See Marx 1976b, p. 227.

or, in other words, as the only adequate form of existence of exchange value in the face of all the other commodities, here playing the role of use values pure and simple.¹²

Thus, Marx himself acknowledged that a 'representative' of gold could also act as the 'sole form of value'. To appreciate the functioning of the 'representative' of gold in such a context, it is important to be reminded of some well-known incidents from early English monetary history that provide the historical backdrop to Marx's rather tangled subordinate clauses. Thus, in the crisis of 1825, the 'sole form of value', instrumental to avoiding a credit collapse, included a quantity of one pound notes fortuitously discovered in the vaults of the Bank of England; in the crisis of 1839, the 'sole form of value' included a loan advanced to the Bank of England by the Bank of France; and in the crisis of 1847, the 'sole form of value' included the banknotes of the Bank of England, which could resume their role as 'money as money' only after the Bank Act of 1844 was suspended. On those occasions, valueless banknotes (credit money) acted as the 'sole form of value' for reasons fully dependent on institutional structure, legislation, and economic conjuncture. It is apparent, therefore, that in principle valueless money could adequately perform the function of 'money as money', as Marx was well aware.¹³

Similarly to fiat money, the further development of the form of money would be demonstrated by the performance of the function of 'money as money' by commodity money itself. Since commodity money possesses intrinsic value, it could allow for obligations to be deferred, adequately settling them later. Consequently, commodity money makes it possible for commercial (or trade) credit to emerge, subsequently giving rise to several forms of credit instruments, most notably bills of exchange. At a further remove, the ability of commodity money to settle debts (and the prior existence of commercial credit instruments and institutions) also makes it possible for the systematic advance of banking (or monetary) credit to emerge, i.e. it makes it possible to have the systematic lending of money on condition of repayment (plus interest). Commercial and banking credit relations, which pivot on (and are structured by) the process of industrial and commercial accumulation, are the mainstay of the capitalist credit system.¹⁴

The most prominent form of money in advanced capitalism, i.e. valueless credit money such as banknotes and bank deposits, emerges spontaneously

¹² Ibid.

¹³ Marx 1976b, pp. 236–7.

¹⁴ This issue is fully analysed in Itoh and Lapavistas 1998, ch. 4.

out of the operations of the credit system and its interaction with capitalist accumulation. In its simplest, original form, credit money that is generated by banks takes the form of a private banknote issued to acquire financial assets, such as bills of exchange. Deposit credit money is not qualitatively different from private banknotes – it is merely another type of bank liability issued in the normal course of a bank's business to acquire financial assets.

The adequacy of credit money for the function of 'money as money' cannot be taken for granted at the outset, and has to be established continually and in practice. Purely as an indication of the issues involved in establishing the adequacy of credit money 'as money', note that factors which are of vital importance would include the volumes and the prices of credit flows (commercial and banking), and at further remove, the interaction of credit flows with the production of surplus value. If the projected returns from accumulation failed to materialise, the assets of an individual bank could be devalued, thus making its liabilities (i.e. credit money) inadequate for the purposes of hoarding and making payments. It is also conceivable that such phenomena could spread generally among banks. At a still further remove, the adequacy with which credit money as a whole functions 'as money' would depend on the institutional structure of the credit system, and the policies adopted by monetary authorities.

Does the analytical foundation of commodity money afford any advantages in examining the adequacy of credit money 'as money'? When economic theory focuses narrowly on hoarding and debt settlement, it is clear that commodity money does not offer any decisive advantages in analysing credit money. Rather, what matters is to analyse the operation of the credit system (particularly banks), the interaction of credit with industrial accumulation, and the effect of monetary and credit policies on both the credit system and the process of accumulation. Put plainly, to ascertain the adequacy of credit money as means of hoarding and payment, it is much more important to possess a theory of banking than a theory of commodity money. On the other hand, it is equally true that when monetary theory commences with commodity money, no analytical advantages are lost in this connection. In no sense is commodity money a hindrance to analysis of credit and banks, quite apart from the fact that it affords a structured explanation for credit money's emergence.

However, when the adequacy of credit money for the function of means of exchange discussed in section 2.2 is also considered, the analytical foundation of commodity money proves of critical importance. Analogously to fiat money, the adequacy of credit money for this function corresponds broadly to its ability adequately to circulate commodity output, which hinges on determining prices individually and in the aggregate. The point is that determining the exchange

value of credit money (i.e. the inverse of the price level) is considerably more complex than for valueless fiat money, and closely connected to the intrinsic value of commodity money, as is shown in part 3 below.

3 Determining the Exchange Value of Money: The Contrast between Commodity Money and Valueless Money

To discuss the determination of money's exchange value it is first necessary to clarify some aspects of the methodological approach adopted. The primary concern of this chapter is to undertake an analysis of the content and interplay of fundamental economic categories relevant to money. Examination of the relationship between form and function of money has shown that, first, the form of money tends to evolve as money's functions are performed and, second, that commodity money plays a critical role in the evolution of money's forms. The driving notion was the adequacy of form for function, and thus much attention was paid to the adequacy of valueless forms of money for their functions. In this light, the main concern of this section is to analyse the adequacy of valueless money for the function of means of exchange.

The issue that arises at this point is the relationship between the logical and the historical evolution of the money form. Clearly, there has to be a broad correspondence between the two. It would not be very persuasive, for instance, logically to identify commodity money as the original form of money, if evidence existed of the historical precedence of credit money. Fortunately, no such evidence exists.¹⁵ At the same time, there is no reason at all to expect money's historical evolution to exhibit either the clarity or the order of its logical evolution. This point holds for all valueless money, but it is most easily seen in the case of credit money for the simple reason that, of all forms of money, credit money is the most heavily dependent on institutional arrangements, particularly those of the credit system. Thus, historical and institutional developments are occasionally referred to below in order to substantiate salient points of logical analysis, and to identify, in a stylised way, monetary phenomena that call for theoretical explanation.

The imperfect correspondence of the logical and historical evolution of the form of money makes it necessary to consider some aspects of the evolution of the history of economic thought to gain further clarity on this issue. It is worth stressing that the purpose of turning to the history of thought is not at all to

15 See Itoh and Lapavistas 1998, ch. 2.

establish historical precedence of writers and ideas. Rather, the reason is that the development of economic theory tends to reflect the material reality within which theory was produced. Moreover, as was argued above, institutional and historical factors have a peculiarly strong influence on the conduct of fiat and credit money. By considering the development of economic thought, it could be shown how monetary thought reflected these influences, helped specify them more precisely, and also shaped them.

3.1 *Determining the Exchange Value of Money*

In individual transactions, money's exchange value is the inverse of a commodity's price. If money is a commodity and commodities exchange at value, it also follows that money's exchange value is equal to the ratio of the value of money over the value of the commodity. However, and this need not detain us further, under capitalist conditions and with unequal compositions of capital, the inverse of a commodity's price bears no immediate and direct relationship to the ratio of labour embodied in money and in the commodity.

Determination of money's exchange value in general, on the other hand, requires consideration of the totality of the sphere of exchange, and leads directly to the equation of exchange. In the sphere of exchange as a whole, money is characterised by velocity and quantity.¹⁶ Average velocity during a given period of time is defined in this chapter as the price realised per unit of money. Money quantity in every period is the quantity that is made necessary by the total price of the quantity of commodities seeking sale and of maturing debt obligations; money quantity varies inversely with velocity.

For simplicity, it is assumed that money is means of exchange, unless otherwise stated; the velocity of money is constant and equal to unity; the quantity of commodities to be circulated equals total commodity output. None of these assumptions is critical for the conclusions reached here. By analogy with individual transactions, the general exchange value of money is the average rate at which the quantity of money, M , exchanges for the quantity of commodity output, Y . This average rate is also the inverse of the price level, P . In other words, the exchange value of money is given by the expression $Y/M = 1/P$, which is basically the equation of exchange for velocity equal to unity.

If commodities exchange at value, by analogy with the exchange value of money in individual transactions, the exchange value of money is equal to the

16 The character of money's motion in performing the functions of means of circulation and means of payment was analysed in detail by Marx (1970, pp. 98–107 and 137–48; see also Lapavistas 1991).

ratio of the value of money, m , to the per unit value of commodity output, y .¹⁷ That is, $Y/M = m/y$ (since velocity is equal to unity). In short, as long as commodities exchanged at value, the ratio of intrinsic values would provide a point of reference for the exchange value of money. On the other hand, if production was undertaken by many capitals that have to earn the same rate of profit and compete in a free market, there could not be any guarantee that the equality $Y/M = m/y$ would hold at all times, since prices would necessarily diverge from values.

Thus, for aggregate capitalist exchange, it could not be immediately assumed that the ratio of intrinsic values of output and money would provide a reference point for the exchange value of money. In this light, the analysis of the exchange value of money under capitalist conditions would involve two issues of paramount importance (given that velocity has been assumed constant): first, the process of determination of the quantities M and Y must be outlined; second, the nature of the relationship of Y/M to m/y must be specified. For both of these, as is made clear below, there is a world of difference between commodity money and valueless money.

3.2 *The Exchange Value of Money when Money is a Commodity*

With regard to commodity money, two possible ways exist to resolve the theoretical problem of determining its exchange value, both of which were clearly outlined by classical political economists.

There is, first, the quantity theory of money, with Hume and Ricardo as the most prominent of its partisans, though an important difference also exists between them. For Hume, neither money nor commodities possess intrinsic value.¹⁸ Therefore, by definition, there could be no inherent relationship between Y/M and m/y . Furthermore, for Hume, determining the quantity of money, M , is fairly straightforward: M could change independently of the quan-

17 The problem of aggregation of use values inevitably emerges when a per unit intrinsic value of output is postulated, i.e. a general 'value level'. However, the same problem is inherent in any formulation of the general price level, a concept very widely employed in economic theory. The conceptual problems of aggregation should not prevent us from gaining the insight that the concept can afford. Thus, the exchange value of money, Y/M , should be thought of as a ratio of physical quantities, i.e. 'physical output per physical unit money'. That, as we shall see, was the original understanding of the ratio by quantity theorists. It is also worth stressing that both Y and M are here taken as stocks present in the sphere of exchange, since analysis is undertaken for a given period of time and it was assumed that the quantity of commodities to be circulated equals output for the period.

18 See Hume 1955, p. 37 and p. 48.

ity of output, Y , e.g. due to mine discoveries. In modern parlance, the supply of commodity money to the sphere of circulation would be exogenous. For Hume, then, the exchange value of commodity money is determined independently of the money commodity's intrinsic value, through what might be called a pure quantity theory of money.¹⁹

There is no doubt that Hume's pure quantity theory is an elegant logical schema. However, if it were postulated that commodities and money also possess intrinsic value (embodied labour), it would become evident that a much more elaborate theoretical determination of the exchange value of commodity money would be necessary. In terms of the formulation introduced above, it would follow immediately that the relationship of Y/M to m/y would have to be explicitly considered. This was precisely the additional difficulty that Ricardo faced compared to Hume. The solution he proposed – while holding on to both the labour theory of value and the quantity theory of money – was definitive.

One example would be enough to convey the gist of Ricardo's argument. Interestingly enough, it refers to an exogenous change in output, not in the quantity of money, which is the variable that is usually assumed to change in discussing the quantity theory. Thus, for Ricardo, if Y rose, other things being equal, the exchange value of commodity money ($1/P$) would also rise (prices would fall):

There will be more commodities bought and sold, but at lower prices; so that the same money will be adequate to the increased number of transactions, by passing in each transaction at a higher value. The value of money, then, does not wholly depend upon its absolute quantity, but on its quantity relatively to the payments which its has to accomplish.²⁰

The subsequent train of events for Ricardo is also logical and clear. The rise in the exchange value of money, given unchanged intrinsic values of gold and commodities (i.e. in the difficulty of production for both), means that holders (or producers) of gold bullion (domestically and abroad) could engage

19 However, Hume also postulated a common 'level' for the exchange value of money across the world and this introduced an equilibrating element in his schema. If, for instance, m rose as a result of gold discoveries, other things being equal, the domestic exchange value of money would fall relative to the world. This would induce the export of money and the import of commodities until equilibrium with the global rate was again established. The exchange value of commodity money is thus regulated through a global quantity theory of money, what is usually called the 'price-level-specie-flow' mechanism.

20 See Ricardo 1951d, p. 120.

in profitable arbitrage. They could put metal in circulation, taking advantage of the more beneficial relation of gold to commodities that is implicit in (the risen) Y/M compared to (the unchanged) m/y . By so doing, they would be raising M , and thus offsetting the initial increase in Y/M , which was the shock to the initial equilibrium position. Equivalently, if the exchange value of gold coin fell as a result of a sudden decline in output (i.e. prices rose), the holders of coin could benefit by melting and exporting coin as bullion; in the process, they would lower M and thus offset the initial fall in Y/M ; equilibrium would again be restored.

In sum, quantity changes in either Y or M , *ceteris paribus*, would alter the exchange value of money, and thus set in train a process of arbitrage that would be based on the unchanged intrinsic values of money, m , and output, y . Arbitrage would continue as long as Y/M and m/y remained incompatible. The result would be that the quantity of commodity money, M , would adjust, thus eventually eliminating the original disturbance in the exchange value of money. The intrinsic value of commodity money, m , would act as an anchor for money's exchange value, provided that the quantity of commodity money in circulation could be freely adjusted.

The assumption that allowed Ricardo theoretically to anchor the exchange value of commodity money on money's intrinsic value was the unimpeded exit (and entry) of commodity money from circulation until the quantity of money adjusted to the required level. By this token, if the flows of commodity money in or out of circulation were impeded and the quantity of money in circulation became arbitrarily determined, the mechanism would break down. In that case, the exchange value of commodity money would be entirely determined by the quantity of money and the quantity of commodities that actually found themselves in the sphere of circulation. Thus, the exchange value of commodity money would become independent of commodity money's intrinsic value. In other words, if the quantity of commodity money in circulation became arbitrarily ('exogenously') and permanently altered, the intrinsic value of commodity money would cease to play its anchoring role for the exchange value of money. A pure quantity theory of money would hold, determining the exchange value of money. This conclusion was also fundamental to Ricardo's monetary theory.

An alternative treatment of the exchange value of commodity money was provided by the anti-quantity-theory, and Marx was one of its most prominent exponents. Before considering it, it should be stressed that both Ricardo and Marx (and the currents to which they belonged) would accept that the intrinsic value of money (labour embodied) would act as anchor for the exchange value of money. Moreover, they would have no dispute on the point that if

the quantity of circulating money could become arbitrarily (and permanently) altered, the exchange value of commodity money would indeed be determined by the quantity of commodities and the quantity of money, independently of money's intrinsic value.

The difference between Ricardo and Marx lay, rather, in the complete rejection by Marx of Ricardo's theoretical mechanism for anchoring the exchange value of commodity money onto money's intrinsic value (i.e. the quantity theory of money). Marx offered a trenchant argument on this point, the substance of which was that Ricardo's treatment leaves no room for the 'money as money' functions of commodity money, since it concentrates exclusively on the function of means of exchange.²¹ If the adjustment of the quantity of money relied on the ceaseless conversion of coin into bullion and back into coin (both movements initiated by merchants aiming to take advantage of profit opportunities), there would be no room for money hoarding in the system. That is an inevitable conclusion since the hoarding of money as economic activity implies that economic agents would cling onto the metallic substance of money irrespective of immediate profit opportunities that might have been created by divergences of the exchange value of money from its intrinsic value.²² Thus, Ricardo's theory of the determination of the exchange value of commodity money precluded the analysis of 'money as money', i.e. precisely of the most interesting and important functions of money in a capitalist economy.

In this vein, Marx stressed that money hoarding and dishoarding were the regulating influences on the quantity of circulating money. The emphasis on the monetary role of hoards is a distinguishing feature of the anti-quantity-theory tradition in general, and Marx adopted it from Steuart and the Banking School.²³ The formation and dissolution of commodity money hoards would jointly determine the circulating quantity of money, thus making the exchange value of money compatible with the intrinsic values of money and commodities. While in the Ricardian model there is a direct relationship between the quantity and the exchange value of commodity money, for Marx this relationship is mediated by money hoarding. Naturally, the following question immediately arises: what determines hoarding and dishoarding?

Marx devoted a large part of the second volume of *Capital* to this issue, and showed that hoard formation and dissolution are integral aspects of the reproduction of capital. The significance for monetary theory of Marx's treatment of

21 See Marx 1970, pp. 169–79.

22 For a fuller treatment of this issue, see Lapavitsas 1996.

23 See Arnon 1984b and Lapavitsas 1994.

hoarding in *Capital* lies in that it locates the forces that influence the quantity of money (above all, hoarding and dishoarding) within the very process of capital accumulation. This is a very different approach from that of Ricardo and of all quantity theorists who typically postulate exogenous changes in the quantity of commodity money, seeking to establish an equilibrating process through the interplay of money's exchange and intrinsic values. Important as Marx's analysis is, however, it does not amount to a precise theory of how hoarding and dishoarding ensures the anchoring of commodity money's exchange value to its intrinsic value. That remains a significant absence in Marx's treatment of commodity money.²⁴

One possible explanation for this absence in Marx's work might be that analysis of commodity money under capitalist conditions eventually confronts a methodological quandary. Theorisation of money hoarding under such conditions quickly runs against the problem of analysing credit, since the accumulated funds of money can be regularly lent at interest. Thus, the analysis of commodity money under specifically capitalist conditions must pretty soon incorporate the lending of hoarded money. However, if one explicitly allowed for credit relations, the processes of hoard formation and dissolution would

24 Not only this, but Marx's treatment leaves a significant lacuna in his theory of the determination of the rate of profit, something which is frequently not appreciated by Marxist economists. For Ricardo, as we have seen, if the quantity of money, M , was below the level required, the exchange value of money would rise (i.e. P would fall), thus making it profitable for bullion holders and gold producers to expand both production and the supply of gold to circulation. The fall in the general price level would be necessary to increase gold profitability and thus to induce an output increase in an industry whose price of production and market price could obviously not diverge from 1 (the gold price of gold). But if the quantity theory is assumed not to hold, how could there be an increased profit rate to encourage gold producers to expand output, given that the gold price would always be fixed at 1? In case this is thought to be a minor quirk of monetary theory, note that the problem would reappear with a vengeance when it would come to forming the general rate of profit across the economy. The equalisation of profit rates would generally work through the movement of capital from low- to high-return sectors, raising the supply of output in the latter and bringing the sectoral price down, thus also lowering the sectoral rate of profit until equilibrium would prevail. But how would that process work for the gold industry, since the price of gold would be permanently 1 by construction? If the quantity theory of money were valid, as Ricardo claimed, the problem would, of course, be trivial because the price level, P , would rise, thus eventually adjusting the profitability of the gold industry downwards. But what would happen if the quantity theory of money did not hold, as Marx claimed? There is no clear answer for this problem in Marx's work, nor in the work of Marxist economists generally.

become subsumed under the processes of bank lending and repayment of loans. Now, to trace the credit-related mechanisms through which the exchange value of commodity money would be anchored in its intrinsic value, one would need a theory of the relation of credit to real accumulation over the business cycle.

Given a theory of credit, it could be possible to show that, in the course of several cycles, the stock of monetary gold would be constantly re-divided between hoard and circulation (also absorbing the fresh gold flows) in line with the intrinsic value of gold.²⁵ At the same time, the exchange value of gold would exhibit strong fluctuations in both directions relative to the intrinsic value of gold. In short, if the quantity theory of money were rejected, the intrinsic value of commodity money would provide an anchor for the exchange value of money only over the course of several business cycles. The process would not be purely monetary and it would be mediated by credit mechanisms, also involving pronounced price level fluctuations characteristic of the business cycle.

To recap, classical political economy presents us with two theoretical paths for determining commodity money's exchange value: the quantity theory, summed up by Ricardo, and the anti-quantity-theory, summed up by Marx. Both currents posit the intrinsic value of commodity money as the anchor of money's exchange value. However, they differ profoundly on the mechanism through which the quantity of commodity money in circulation would be altered to ensure the anchoring of exchange value onto money's intrinsic value.

Ricardo's approach was based on profitable arbitrage between circulating money and the money commodity: if there were an incompatibility between the exchange and the intrinsic value of commodity money, spontaneous arbitrage would regulate the quantity of commodity money, restoring equilibrium. If, for whatever reason, arbitrage became impossible, the exchange value of commodity money would be determined purely by the quantity of money and the quantity of commodities, independently of the intrinsic value of money.

Marx's approach, on the other hand, was based on the hoarding and dishoarding of the money commodity, which would regulate the quantity of commodity money and ensure compatibility of the exchange value with the intrinsic value of money. However, Marx, unlike Ricardo, did not precisely specify how the quantity of commodity money would change in line with its intrinsic value. On the other hand, he was able to stress the 'money as money' functions of commodity money, i.e. hoarding and means of payment, which

25 For further discussion, see Itoh and Lapavistas 1998, ch. 6.

Ricardo was forced to leave out of his schema. Even more importantly, Marx was able to focus on processes that were endogenous (to capital accumulation) in adjusting the quantity of commodity money in circulation.

The difference between the two approaches has important implications for the analysis of the exchange value of other forms of money and its connection with the intrinsic value of commodity money. These issues are considered below.

3.3 *The Exchange Value of Money when Money is Intrinsically Valueless*

For quantity theorists, determination of the exchange value of valueless money does not present any special problems. The fundamental reason is that quantity theorists do not usually differentiate among the various forms of valueless money (fiat and credit): all forms of valueless money are seen as conventions which replace the money commodity.²⁶ The argument that is then typically made is that the quantity of valueless money is determined arbitrarily ('exogenously') by the state or other monetary authorities. This stance is strikingly shallow, particularly with respect to credit money, but it has at least one merit: it solves the question of how the quantity of valueless money is determined by postulating simply that the authorities decide what it is.

From this perspective there are two related possibilities for determining the exchange value of valueless money, within the confines of the quantity theory.

First, if valueless money were freely convertible into the money commodity, it would be trivially true that the intrinsic value of the money commodity would act as an anchor for the exchange value of valueless money. The dumb fact of convertibility would prevent the emergence of a discount or premium for valueless money. By the same token, convertibility would prevent the emergence of, respectively, surpluses or shortages of valueless money relative to the necessary quantity of money in circulation. In other words, convertibility into the money commodity would act as a limiting factor on the arbitrary powers of monetary authorities.

Second, if there were no convertibility into commodity money, the intrinsic value of the money commodity would cease to act as an anchor for the exchange value of valueless money. There would be no limiting factors on the powers of the monetary authorities to change the quantity of valueless money, and hence, the exchange value of the latter would be determined purely through the relation of its quantity to the quantity of commodities in circulation. To take a familiar example, if there was an excessive issue of inconvertible

²⁶ In a narrow and formal sense this is, of course, true.

banknotes, other things being equal, then Y/M would be lowered; if, moreover, the paper money could not be converted into commodity money, it would not be able to leave circulation and the decline in its exchange value (i.e. the rise in prices) would become permanent. Thus, the inconvertibility of valueless money into commodity money would imply that the exchange value of valueless money would become detached from the intrinsic value of commodity money. A pure quantity theory would rule.

For anti-quantity theorists, in sharp contrast, determining the exchange value of intrinsically valueless money is a process of considerable complexity. The starting point, unlike quantity theorists, is to differentiate between state-issued fiat money and credit money. Marx's work can again be taken as reference point for this current's approach with respect to both forms of valueless money.

3.3.1 Determining the Exchange Value of Fiat Money

Fiat money, as was argued in part 2 of this chapter, is a state-issued symbol of commodity money, which arises spontaneously in the sphere of circulation. It is notable that there are no significant differences between the quantity theory and the anti-quantity-theory regarding the determination of the exchange value of fiat money. The quantity of fiat money is determined arbitrarily by the state, and there are no limiting influences on it that are integral to the process of exchange.²⁷ The only systematic regulating influence would be convertibility into the money commodity. Thus, even for the tradition of the anti-quantity-theory, the exchange value of inconvertible fiat money would be determined through mechanisms that are characteristic of the quantity theory. In short, if the state forced ever-greater quantities of inconvertible fiat money into circulation, other things being equal, the exchange value of fiat money would decline without limit (there would be inflation and hyperinflation).

The following two important questions arise in this connection.

First, could the quantity of fiat money be regulated through a hoarding process, analogous to that for commodity money? The answer is simply no, because fiat money is inadequate for the function of hoarding, and (unlike valueless credit money) there are no circumstances that could make amends for its inadequacy. Historic fiat paper money – such as French Assignats or British Treasury Notes – has functioned as a means of circulation arbitrarily created

27 See Marx 1970, pp. 118–19. Some practical limiting influences on the quantity of fiat money could be provided by institutional regulations, such as requiring the payment of taxes, or issuing state bonds payable in such money.

by the state, without having any necessary connection with the credit system. It could function adequately as means of exchange because the substance of money is immaterial when it comes to circulating commodities. However, fiat money could not adequately preserve value outside the sphere of exchange because it neither possesses value nor is it organically connected with the process of real accumulation through the credit system. The mere say-so of the state is good enough to enable fiat money to mediate the process of circulation, but it is not good enough to allow it to preserve value, or satisfactorily to settle past obligations and transfer value at all times. For a valueless money to be adequate for these functions it is necessary, above all, to have an organic connection with the credit system.

Second, does the intrinsic value of commodity money play no role at all in determining exchange value of inconvertible fiat money? It is notable that, for Marx, a definite relationship exists between these two values, arising from the fact that fiat money symbolises commodity money. Since fiat money 'stands for' a definite quantity of commodity money, there would be a definite rate of symbolisation between the ideal quantity of commodity money that would have been in circulation, and the quantity of fiat money that actually is in circulation. The quantity of commodity money that is symbolised by each unit of fiat money clearly also depends on the intrinsic value of commodity money relative to the value of commodities. Thus, the decline in the exchange value of inconvertible fiat money that would take place if its quantity were arbitrarily increased would be commensurate with the decline in the rate of symbolisation of commodity money by each unit of fiat money. In short, the intrinsic value of the money commodity would provide a theoretical reference point for the analysis of the fluctuations of the exchange value of inconvertible fiat money, although it would not act as an anchor for it.

There is, thus, an analytical concurrence between the quantity theory and the anti-quantity-theory of money (conferring validity to the quantity theory) with regard to determining the exchange value of fiat money. But this happens only for fiat money because it is a symbol of commodity money; by no means is there a similar concurrence when it comes to valueless credit money. Credit money is not a symbol of commodity money; its quantity does not replace a definite quantity of gold; its units do not symbolise a certain amount of value. There is no 'shadow of gold' on credit money.²⁸ Unlike fiat money, and despite being valueless, credit money derives its adequacy in exchange

28 This point has not always been appreciated by those who have studied Marx's monetary theory. See, for instance, Lavoie 1986, in an otherwise excellent article.

from its connection with credit processes, and hence, potentially, with real accumulation itself. There are important regulating influences on the quantity of credit money, which are integral to the process of exchange, as is shown below.

3.3.2 Determining the Exchange Value of Credit Money

For the purposes of this chapter, credit money is taken to comprise liabilities of banks, i.e. banknotes and deposits.²⁹ Contemporary bank-issued credit money bears the strong imprint of the state through its links with the central bank. The role of the state is important in two respects: first, the issue of banknotes has, by and large, become the monopoly of the central bank; and second, the creation and elimination of bank deposits is subject to conscious manipulation by the central bank through credit transactions with other banks as well as in the open market for banking credit. The ability of the central bank to undertake such manipulation critically depends on its access to the credit of the state. Since the state has the right to tax the annual revenue, state credit clearly has very different determinants from the credit of capitalist firms (and is not subject to the same limitations).

Methodologically, analysis of credit money needs to be disentangled from the effects of (more or less) conscious state intervention in the sphere of credit. The analysis of state credit policy belongs to a lower, more concrete, level of abstraction. Thus, at the purest and simplest level of analysis, credit money will be taken to comprise bank liabilities issued by many freely competing banks. This assumption is fully compatible with the existence of tendencies within the banking system that lead to the emergence of a central bank, and it does not preclude the possibility that state credit policies would create phenomena that would be quite distinct from the spontaneous operations of the credit system itself. On the other hand, it does imply that the emergence of a central bank and the effects of state credit policy would be fundamentally circumscribed by the underlying nature of the freely operating credit system.

For the purposes of this chapter, the assumption of many competing banks, freely issuing liabilities in the absence of state monetary policy, significantly simplifies the analysis of the exchange value of credit money, with no loss of generality. The issues that immediately arise – as for commodity and fiat money –

29 Analytically and historically, endorsed bills of exchange that were used as means of exchange were the earliest form of circulating credit money. However, we lose little generality by disregarding this early form of credit money, concentrating instead on credit money created by the banking system.

are, first, to identify the factors that determine the quantity of credit money, and second, to establish whether a relationship exists between the exchange value of credit money and the intrinsic value of commodity money.

Analytical guidance can, again, be sought in classical political economy. In this respect, however, the quantity theory of money has very little to offer, since it treats valueless credit money as fiat money, the quantity of which is determined arbitrarily ('exogenously') by the monetary authorities. For the anti-quantity-theory, in contrast, the quantity of credit money is a by-product of the lending (and debt repayment) activities of the credit system (mostly banks). These activities are clearly related to production of commodity output. In short, the quantity of credit money is endogenous to the process of capitalist accumulation.

An original insight was offered by Steuart, who argued that bank money, created through the 'melting down of solid property' (the acquisition of illiquid assets by banks through issuing their liabilities), tends to 'regorge' as the 'melted down' property becomes solid again (i.e., credit money drains away from banks as borrowers repay their bank debts).³⁰ Steuart's work probably influenced Smith, who put forth the argument that bank-issued money, so long as it is created by banks against the purchase of bona fide bills of exchange that have been generated by an actual sale of commodities, could never be in excess of what the 'channel of circulation' would naturally absorb.³¹ Smith's argument, which has become known as the Real Bills Doctrine, is also, and evidently, a prescriptive argument regarding good bank lending policy, i.e. that banks should lend only for 'good' projects that are likely to generate returns.

The weakness in Smith's argument was decisively identified by Thornton, who argued that several 'real' bills could emanate from a single sale of goods, all of which might prove to be less creditworthy than a 'fictitious' bill generated by a well-known merchant (who would evidently have independent means of payment).³² Thornton also stressed that the price at which monetary credit is traded, i.e. the rate of interest, would be critical for determination of the quantity of credit money. The Banking School, chiefly Tooke and Fullarton, resurrected Steuart's 'regorging' argument and gave it the name of the Law of the Reflux.³³ The Law essentially stated that the settlement of debt owed to banks would ensure the reflux to the issuing banks of banknotes that would

30 See Steuart 1805, bk. IV, pt. I, ch. II.

31 See Smith 1904, bk. II, ch. II, pp. 314–24.

32 See Thornton 1939, chs. I and II.

33 See Tooke 1848, ch. II, sec. 5, and Fullarton 1845, ch. III.

be surplus to the needs of circulation. The Banking School also recognised the essential similarity between banknotes and bank deposits as forms of credit money.

Marx spoke admiringly of Steuart, Smith, and the Banking School, and strongly argued that the influences regulating credit money are qualitatively different from those regulating commodity and fiat money.³⁴ Furthermore, as Rosdolsky noted, Marx also referred to the 'bent-back', or cyclical, path of credit money in circulation as its distinguishing feature.³⁵ That is, for Marx, credit money tends to return to its issuer as the debts (assets) against which such money was issued are repaid. This indicates that Marx was sympathetic to at least some aspects of the Law of the Reflux. In a throwaway remark he more or less concurred with the Banking School's claim that the Law of the Reflux, within the institutional framework of the English credit system, guaranteed the stability of the (exchange) value of the banknote 'on the average'.³⁶ At the same time, Marx criticised the Banking School for ignoring the difference between money as money and money as capital in its analysis of monetary phenomena.³⁷

In this light, for Marx, the quantity of credit money would be determined by the processes of issue and reflux, which would in turn reflect the advance and repayment of bank loans. Since bank-created money would have a credit dimension, its creation could not be treated as exogenous to real accumulation, and this is a major difference with fiat money. Bank loans would allow production to expand; value and surplus value would be generated, commodity output would expand; from the increased sales revenue, principal and interest would be paid to the banks; and the return of credit money to its issuer would be thus secured. The advance of bank loans, in short, creates the conditions which make bank money necessary in circulation, while the repayment of bank loans removes bank money from circulation.³⁸ By the same token, credit money

34 See Marx 1970, ch. II, pt. C.

35 See Rosdolsky 1977, p. 144, n. 11.

36 See Marx 1973, p. 131.

37 See Marx 1981, ch. 28.

38 It follows that the formation and dissolution of hoards, which regulate the quantity of commodity money, are processes that would not be directly applicable to credit money. The reason for this, however, is not that banknotes cannot be hoarded. On the contrary, credit money is particularly well-suited for the function of hoarding under capitalist conditions of exchange, since such money is part of the credit system, which, as well as creating fresh credit, systematically concentrates temporarily stagnant money and redirects it to real accumulation. The reason is, rather, that hoard formation and dissolution are sub-

admits of significant institutional and policy manipulation. The clearing of past debts, the timing of the repayment of commercial debts, the methods for ascertaining the creditworthiness of the recipients of fresh loans, and so on, would all be subject to historically specific institutional arrangements, and they would thus affect the quantity of credit money in circulation.

The analytical problem which this approach faces is immediately evident: the advance and repayment of bank loans, which jointly determine the quantity of credit money, would also critically influence the production of commodity output. The same factor – credit – plays a key role in determining both the quantity of money and the quantity of commodities in the sphere of circulation. Put otherwise, the demand for fresh loans would certainly originate in real accumulation, but the advance of credit would ‘stretch’ real accumulation, thus creating conditions that would support the advance of credit. It is, of course, possible that a particular advance of credit would not succeed in generating value and surplus value, thus disrupting the regularity of the reflux of credit money. Indeed, any meaningful theory of capitalist crisis must necessarily incorporate the ‘overstretching’ of both credit and output, which would lead to difficulties in repaying debts, thus disrupting the issue and reflux of credit money.³⁹

It is clear at this point that full theoretical examination of the determination of the quantity of credit money has very demanding requirements, including a theory of banking, a theory of crisis and the business cycle, and a theory of growth. Credit money is, indeed, incomparably more complex than other forms of money. Still, the following assertion does not seem groundless: only accidentally would the quantities of credit money and commodity output fluctuate in harmony with one another, i.e. fluctuations in output due to credit would not necessarily be accompanied by requisite fluctuations in quantity of credit money, and vice versa. Only if one were prepared to argue that banks advance credit that certainly results in production of value and surplus value, thus guaranteeing its own repayment, would it be possible to claim (after complex theoretical argumentation) that the quantity of commodity output and the quantity of credit money would move in harmony with one another.

sumed under the process of loan advance and repayment. It is the advance and repayment of (primarily) bank loans that regulates the quantity of credit money in circulation.

39 It is altogether evident that had we allowed for the existence of a central bank and of state credit, there would have been additional factors influencing the advance and repayment of bank credit (such as its conscious manipulation by the authorities) and hence of the quantity of credit money.

There could be no such guarantee for bank credit, of course, as monetary theorists have known since the time of the critique of the Real Bills Doctrine.

For the purposes of this chapter, therefore, the endogeneity of the quantity of credit money, and its co-determination with output on the basis of the advance and the repayment of credit, imparts a strong element of uncertainty to determining the exchange value of credit money. The question then becomes: is there an anchor for it in the intrinsic value of commodity money? The answer depends on the role that commodity money would play in the credit system, as well as on the existence of convertibility between the two forms of money. The answer is clearly specific to institutional framework, which is hardly surprising considering the importance of credit institutions for the creation and reflux of credit money. The following two cases are treated as representative for reasons that will become clear. First, credit money is assumed to be convertible into commodity money – i.e. a legal obligation exists for credit institutions to exchange their liabilities into commodity money on demand – and both forms of money are in use in exchange. Second, credit money completely dominates capitalist exchange and is inconvertible into commodity money, the latter having no immediate monetary functions.

For freely convertible credit money, as for fiat money, the dumb fact of convertibility would prevent the emergence of a systematic premium or discount relative to commodity money. However, in addition to this passive anchoring principle, the following, equally important, active principle could also be identified. If banks were obliged to convert their liabilities into gold, the money commodity would necessarily be used as a reserve asset for banks, thus sustaining their liabilities. It immediately follows that if banks were required to keep gold reserves, an external constraint would exist on the banking system, which would impose limits on the advance of credit and add urgency to the repayment of loans. The discipline imposed by commodity money reserves would constitute another path through which the intrinsic value of commodity money would be able to exercise a regulating influence on the exchange value of credit money. Full examination of this issue would require a theory of the banking firm and is thus beyond the scope of this chapter, but the following important issue could be broached.

It is arguable that there is a spontaneous tendency toward the centralisation of gold reserves of banks, based on the economies and flexibility that a centralised reserve would confer onto the normal activities of a bank.⁴⁰ This tendency is tantamount to the spontaneous emergence of a central bank, in the vaults of

40 See Itoh and Lapavistas 1999, chs. 4 and 7.

which would reside the main commodity money reserve of the banking system, thus creating a national gold hoard. The hoard would have a domestic role, namely to bolster the monetary and credit system in times of crisis, since gold would always be acceptable as means of payment. The hoard would also have an international role, namely to efficiently settle payments and transfer wealth among nations. The Bretton Woods system prevalent until 1971–3 could indeed be interpreted as a mechanism that instituted a central gold reserve for the international banking system. The need to protect the national hoard, and the concomitant policy actions that the central bank must undertake, would impose further limitations on the advance and repayment of bank credit. Thus, the centralisation of the reserves of commodity money would multiply its limiting power on the quantity of credit money, further anchoring the exchange value of credit money onto gold's intrinsic value.

It should be stressed, nonetheless, that the anchoring influence that would be exercised by commodity money through the centralised banking reserve would operate neither smoothly nor harmoniously. Marx's extensive comments on the business cycle in the third volume of *Capital* offer considerable insight on this point. Thus, the exchange value of credit money would typically fall in the upswing of the economic cycle (i.e. prices would rise), and it would then rise in the ensuing slump (prices would fall). The process through which these fluctuations would occur, however, would not be purely monetary. In a slump, commodity prices would fall as capitalists would be forced to sell their output in order to settle debts and as financial assets would be deflated. Debt deflation would be an absolutely necessary mechanism for the exchange value of money to rise again.

There would be, in other words, an inescapable credit dimension to the fluctuations of the exchange value of credit money, which would also impinge upon real accumulation (firm closure and rising unemployment) and would lead to sharp rises in interest rates. Furthermore, nothing would guarantee that the fall of prices in a slump would simply offset the rise of prices during a boom. Indeed, it is arguable that the fall would overcompensate for the previous rise as the restructuring of capital would be undertaken in full earnest, leading to wholesale destruction of fixed capital. In this context, the functions of the national gold hoard would come to the forefront, as means of payment would become necessary for the domestic operation of banks and, even more importantly, to confront the international payment implications of the swing from boom to slump. Defence of the gold hoard by the central bank would usually require raising interest rates and exacerbating the debt deflation, thus contributing to the violent adjustment of the exchange value of credit money.

The most important point in this context is that fluctuations in the exchange value of valueless credit money would be entirely unrelated to representing gold, or to the quantity theory of money. As the quantity of money rose during a boom, prices would not be rising because each unit of credit money would be representing less gold, hence less value. The process would not be at all comparable to that for fiat money inflation. Prices would be rising because real accumulation would be surging ahead, supported by credit and by the regular flow of returns from trade. By the same token, in the course of a slump, prices would not be falling because the credit money quantity would be contracting, but rather because the inability of capitalists to sell and to accumulate profitably would be inducing debt deflation and forced sales of commodities. The anchoring role of commodity money, furthermore, would operate through actions to defend the national hoard of commodity money, thus exacerbating interest rate movements and price level fluctuations.

To recap, for credit money created by a competitive banking system under conditions of free convertibility into commodity money, there would be two external limiting factors operating on its (endogenously) created quantity. First, and passively, the simple existence of convertibility would prevent the emergence of systematic premia and discounts relative to commodity money. Second, and actively, the requirement to defend the reserves of commodity money held by banks and, above all, of the centralised reserve of the banking system would induce necessitate actions that would lead to price falls. For both, the anchor that would be provided by the intrinsic value of commodity money would operate through constant, and often violent, adjustment of both the quantity of credit money and the level of output. The quantity theory of money would have no explanatory power over this process.

Consider now credit money created by a competitive banking system which would be under no obligation to exchange its liabilities for commodity money, and which would keep no banking reserves of gold. Broadly speaking, such conditions have emerged gradually in the course of the twentieth century, and have become prevalent during the four decades following the collapse of the Bretton Woods system. It is clear that for these conditions to emerge, state action would be necessary, including a formal ban on converting credit money into commodity money. Once these conditions would be in place, the monetary role of commodity money would be reduced to forming a national hoard that would remain largely dormant – i.e. a value reserve of last resort.

The effective absence of commodity money from the monetary, however, would not alter the fact that the quantity of credit money would be created through the advance and repayment of banks loans – i.e. through issue and reflux. Credit money creation would remain endogenous to the process of

capital accumulation. There would be no reason why the earlier analytical results regarding the joint determination of the quantity of money and the quantity of output, hence the uncertainty in determining the exchange value of credit money, would be at all different.

What would be different, however, would be the anchoring of the exchange value of credit money onto the intrinsic value of commodity money. There would be none. Both the passive (convertibility) and the active (bank reserves) limiting roles of commodity money would be precluded. Under such conditions, the quantity theory of money (which was previously irrelevant for credit money) would acquire some relevance. Since there could be no guarantee that the quantity of credit money created through the operations of the banking system would be in harmony with commodity output, it would be possible to have permanent changes in the exchange value of credit money from changes in the quantities of both money and output.

It is also worth noting that this result is not analytically identical to the earlier one for fiat money, even though the quantity theory of money would hold on both occasions. For the changes that would occur in the exchange value of inconvertible credit money would not be equivalent to changes in the rate of symbolisation of commodity money by a unit of valueless money. Rather, they would simply reflect changes in the plain ratio of money to commodities – a pure quantity theory of money would hold in this respect.

On the other hand, the absence of reserves of commodity money would significantly increase the room for conscious manipulation of banking operations by the monetary authorities, hence also the room to manipulate the quantity of credit money. If the reserves of the banking system were unrelated to a produced commodity and ultimately rested on state credit, the monetary authorities would have considerable freedom to create reserves and to influence the creation of credit money. In the absence of gold, discretionary policy with regard to the rate of interest would acquire several degrees of freedom, further increased by the lifting of the need to defend the national gold hoard.

As long as central banks could generate acceptable hard cash in times of crisis and sufficient quantities of liquidity to ease the process of capital restructuring, they would be able to limit the extent to which prices would fall in a slump. The intrinsic value of commodity money would cease to provide a reference point for the exchange value of credit money. The scope for conscious manipulation of the price level would be correspondingly increased, thus enhancing the role of the central bank and of the state in general.

To recap, credit money created by a competitive credit system which has no obligation to convert its liabilities into the money commodity, would not have an anchor for its exchange value in the intrinsic value of commodity

money. The quantity of credit money would remain endogenously determined, but it would be amenable to manipulation by state authorities. Under such conditions, a pure quantity theory of money would be relevant to determining of the exchange value of credit money.

Conclusion

Commodity money and, in particular, Marx's theory of the universal equivalent are firm foundations for the analysis of valueless money. Commodity money is a fundamental, but also elementary, form of money; in performing its functions, it develops into more advanced and typically valueless forms of money. The key to the development of money is the adequacy of each form of money for the functions which it is called to perform in capitalist exchange. Thus, state-issued fiat money is primarily a means of circulation, while bank-issued credit money tends to be a means of payment and hoard element. The emergence of valueless forms of money has profound implications for determining the exchange value of money, a process that is quite distinct for commodity, fiat, and credit money, respectively, particularly with regard to the factors influencing the quantity of each. The quantity of commodity money is regulated by hoarding; the quantity of fiat money depends on arbitrary state action; the quantity of credit money is regulated by credit processes.

The intrinsic value of the money commodity closely regulates the exchange value of commodity money, but plays no anchoring role for the exchange value of inconvertible fiat money. By this token, the quantity theory of money is irrelevant to the former, but has explanatory power over the latter. The relation between the intrinsic value of commodity money and the exchange value of credit money, on the other hand, depends on institutional arrangements. If credit money were convertible into commodity money, which also acted as bank reserve, the intrinsic value of commodity money would anchor the exchange value of credit money through convertibility and bank reserve discipline. The quantity theory of money would have no relevance to this process. If, on the other hand, credit money were inconvertible into commodity money and the latter had no active reserve in the monetary system, there would be no anchoring of the exchange value of credit money onto commodity money. The quantity theory of money would have some explanatory power over the exchange value of such money.

PART 2

*Credit, Interest-Bearing Capital,
and the Hoarding of Money*

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Two Approaches to the Concept of Interest-Bearing Capital*

In recent years, there has been a revival of interest in the issues of credit and finance among radical political economists, reflecting both the remarkable growth and the instability of the international financial system. The revival of interest is especially important because credit and finance have not featured strongly in the renaissance of Anglo-Saxon radical political economy during the last three decades.

The analysis of credit and finance from the standpoint of radical political economy has some distinguishing features, including emphasis on the social relations encapsulated by the monetary system and a strong focus on disequilibrium. Nonetheless, the theoretical underpinnings of much of the recent Marxist and other radical analyses of credit and finance have not been sufficiently differentiated from those of mainstream theory. This is particularly notable with regard to the methodological individualism that underlies the concepts of borrowing and lending, including the demand and supply of loans.

This paper argues that appropriate underpinnings for a radical analysis of credit and finance can be found in Marx's own work, and above all in his concept of interest-bearing (or loanable) capital, i.e. money capital traded as a commodity and commanding the payment of interest. Related to it is Marx's characteristic view that the rate of interest and the rate of profit do not tend to equalisation, a principle that leads to strong theoretical conclusions.

Nevertheless, there is also considerable ambiguity in Marx's analysis of interest-bearing capital. It is argued in this chapter that two approaches to the concept can be identified in Marx's work. The first derives the characteristic features of interest-bearing capital from the relationship between a capitalist who possesses money (the 'monied' capitalist) and a capitalist who possesses an investment project (the 'functioning' capitalist). The second focuses on the generation of idle sums of money in the turnover of the total social capital, which are transformed subsequently into loanable capital by the credit system.

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The two approaches are not mutually compatible and lead to very different theoretical analyses of credit and finance. It is further argued that the latter is much superior to the former.

1 'Monied' Capitalists, 'Functioning' Capitalists, and the Nature of Interest-Bearing Capital

The source and nature of interest as a form of revenue have been extensively disputed in economic theory and still remain relatively obscure. Classical political economy identified three major sources of revenue, linking each of them to the three great classes of capitalist society: profit to capitalists, wages to workers, and ground rent to landlords. For classical economists, interest as a source of revenue was not considered to be on a par with these three, i.e. interest was not considered to define a separate social class of similar weight, nor was it seen to be of equivalent significance for the economic analysis of society.

However, classical economists also identified a distinct social group associated with the accrual of interest, frequently called the 'monied' capitalists.¹ This group actually comprises a section of the capitalist class, and its characteristic feature is that its members, according to Adam Smith, 'could not be at the trouble of employing' their capital by themselves. Thus, they lend it to others at interest.² For classical economists, revenue accruing in the form of interest differentiates 'monied' capitalists from industrial and commercial capitalists. In the same vein, the classical economists tended to treat the category of interest as a share of the profits generated and earned by capital. The rate of profit was typically posited as the 'regulator' of the rate of interest, though the precise nature of such 'regulation' remained ambiguous in the work of the leading classical economists.³

In certain parts of *Capital*, Marx adopted an analytical approach to the concept of interest that was very similar to that of the classical school.⁴ In these chapters, Marx analysed the nature of interest-bearing capital by relying partly on the assumption that lending capitalists (who simply own money) advance loans to borrowing capitalists (who simply possess investment projects). Thus, interest emerges as a fraction of the profits generated by the investment projects of the borrowing capitalists.

1 The classic reference is Smith 1904, vol. II, p. 374.

2 Ibid.

3 See, for instance, Ricardo 1951e, pp. 363–4.

4 See, for instance, Marx 1981, chs. 21, 22, 23, 24.

To pursue Marx's argument further, it is essential to state at this point some of the fundamental relationships of the circuit of industrial capital. The characteristic movement of industrial capital represents the unity of production and circulation, and is usually summarised as the circuit of money capital,

$$M - C (lp, mp) \dots P \dots C - M' (M + \Delta M).$$

At stage $M - C$, money capital M purchases labour power, lp , and means of production, mp . At stage P , these inputs are transformed into finished output, C' , which contains surplus value generated through the exploitation of labour. At stage $C' - M'$, finished output is sold, resulting in the return of the original money capital plus profit, ΔM . Stages $M - C$ and $C' - M'$ together represent the sphere of circulation, and stage P represents the sphere of production. The circuit's capitalist character derives from surplus value. The latter also constitutes the circuit's qualitative difference with the simple circulation of money and commodities, $C - M - C$. The circuit sums up the characteristic movement of either an individual industrial capital, or of the total social capital of an industrial capitalist economy.⁵

Value takes three forms in the circuit: money, commodities, and factors of production (workers and means of production). Money in the circuit is found exclusively in the sphere of circulation, and in this narrow sense money retains a pre-capitalist aspect common to all market processes. Nevertheless, the circuit also organically links money to production; the extraction of surplus value provides a mechanism for the continuous expansion of value in the money form. Under capitalist conditions, therefore, the plain money of commercial transactions becomes money capital, a starting point for the fundamental movement of industrial capital.

The transformation of plain money into money capital has profound implications. Since money is the independent representative of value and can always buy, money is a more general starting point for the circuit than either commodity or productive capital. As long as the circular movement of capital is the characteristic form of society's economic reproduction, money buys means of production, hires workers, and results in the production of profit.

Marx's first approach to interest-bearing capital, summed up in the chapters of *Capital* mentioned in footnote 4 and following the spirit of classical economists, claimed that, under capitalist conditions, money acquires the peculiar use

5 It is instructive to think of the circuit as a circular flow diagram (see Fine 1975, p. 47).

value 'to function as capital'.⁶ This is a purely capitalist 'use value', namely to be able either to initiate the circuit of capital *ab ovo*, or to expand existing circuits, and thus to produce profits. The implications are profound: because it possesses this peculiar use value, money could be traded as a peculiar commodity – in other words, as interest-bearing capital; since it is a peculiar commodity, the price of interest-bearing capital is also peculiar, i.e. it is the rate of interest.⁷

To define the 'peculiar' price of interest-bearing capital with greater precision, it is necessary more fully to specify the 'use value' of interest-bearing capital. This could be simply done as 'the ability of money in general to produce the average profit for its user'. Thus, according to this strand of Marx's work, interest-bearing capital is formed as the 'average-profit-generating capacity' of money is bought and sold. This is a 'peculiar' trade because the ownership of money capital as the bearer of the capacity potentially to generate average profit remains with the seller. Consequently, interest-bearing capital is borrowed and lent rather than bought and sold. The owner's reward for parting with money capital for a specific period of time (i.e. lending it) is a share of the profits generated on average, that is, interest.

Thus, the formula of interest-bearing capital is predicated upon the money form of the formula of industrial capital, as is shown below (where i is the rate of interest),

$$\begin{array}{ccc}
 M & \dots & M'' (M + iM) \\
 \downarrow & & \uparrow \\
 M - C (lp, mp) \dots P \dots C' - M' (M + \Delta M)
 \end{array}$$

To recap, Marx's first approach to interest-bearing capital claims that, under capitalist conditions, money possesses the 'peculiar' use value of being able to generate average profits; hence, the owner of a sum of money could temporarily part with it for a share of the potential profit. As classical economists had argued, the lender advances capital but does not 'take the trouble' of employing it directly in the production of profit. In Marx's own words,

6 See Marx 1981, p. 459.

7 For a very clear presentation of Marx's treatment of interest-bearing capital as a commodity *sui generis*, and the relation between commodity prices and merchants' capital profits, see Fine 1985–6. Note that a principal claim of the present article is that the 'peculiar' use value of money to generate surplus value does not accrue to all money. Only money directly invested in the circuit of industrial capital (either at the beginning of it, or as an addition to it) would possess it. Moreover, this 'peculiar' use value would not exist for the holders of idle money, since they have to lend the money in their possession in order to appropriate surplus value.

The owner of money who wants to valorise this as interest-bearing capital parts with it to someone else, puts it into circulation, makes it into a commodity *as capital*; as capital not only for himself but also for others. It is not simply capital for the person who alienates it, but it is made over to the other person as capital right from the start, as value that possesses the use-value of creating surplus-value or profit.⁸

Within this approach and by using the formula of interest-bearing capital, it could be argued that the 'monied' capitalist advances interest-bearing capital to the 'functioning' capitalist and is rewarded with interest, which is a share of the profits. The remainder accrues to the 'functioning' capitalist and is the 'profit of enterprise'.⁹

Consequently, there would be an opposition between interest and profit of enterprise that would start as a purely quantitative division of total profit, but would then become a qualitative distinction between the two forms of revenue. While interest is revenue that accrues to its recipient purely because of possessing capital, profit of enterprise is revenue that accrues to its recipient purely because of functioning as a capitalist and organising production. Profit of enterprise might even be conceived of as the wages of capitalist management and supervision even though, strictly speaking, that would be incorrect, since profit of enterprise always incorporates surplus value from the exploitation of labor power. In short, and in the spirit of classical economists, Marx treated interest and profit of enterprise as two sources of revenue that give rise to two distinct and antagonistic sections of the capitalist class: the more surplus value that is appropriated by one, the less that would remain for the other.¹⁰

Marx's first approach to interest-bearing capital is problematic for several reasons, including the following fundamental observations about credit and finance in a capitalist economy:¹¹

First, the assumption of a pure 'functioning' capitalist, who simply possesses an investment project but has no money, is ideally abstract. In practice, borrowing capitalists typically possess some of their own capital in addition to what

8 See Marx 1981, pp. 464–5.

9 See Marx 1981, p. 497.

10 Even within this approach, however, the antagonism between interest and profit of enterprise would never be on a par with the antagonism between profit and wages. The former would vanish into thin air when the latter would be sharpened. After all, the production of surplus value is an absolute precondition for the formation of interest as revenue.

11 For further discussion, see Itoh 1988, pp. 257–60.

they borrow. A better assumption is needed that could more easily capture the notion of mixing own and borrowed capital, i.e. of leverage, or gearing.

Second, revenue in the form of interest in practice tends to accrue also to industrial and commercial capitalists, not to mention broad swathes of non-capitalist social layers. There is little evidence that interest actually serves as the exclusive foundation of a social group. Consequently, the separate, and often opposing, interests that undoubtedly exist among lending and borrowing capitalists could not be satisfactorily analysed in terms of the 'functioning' section of the capitalist class presumably confronting the 'monied' section. A better theoretical formulation is necessary to account for these conflicts, but also for the symbiotic relations, among capitalists in the realm of lending money. To this purpose, it would be necessary to consider the creation, advance, and repayment of interest-bearing capital as integral parts of the process of accumulating industrial capital.

Third, and as Marx himself pointed out, interest-bearing capital is an 'antediluvian' form of capital, also found in ancient pre-capitalist societies.¹² Thus, if the nature of interest-bearing capital was analysed by examining the putative relationship between a lending 'monied' capitalist and a borrowing 'functioning' capitalist, it would be hard to identify the difference between the modern and the ancient character of interest-bearing capital. This is not merely a matter of historical analysis, but has relevance for the analysis of interest and credit in developing countries where capitalist relations are not yet entirely dominant.

Fourth, if analysis remained at the level of transactions between two individuals, even when one was taken as a 'monied' and the other as a 'functioning' capitalist, the character of interest-bearing capital would appear largely as a matter of the intentions of the lender and of the understanding of the borrower. Even if we assumed (or interpreted Marx as assuming) that the transaction occurred against the social background of capitalist accumulation, the analysis would still smack of assertion. There is no overwhelming requirement for the borrowing capitalist to be a 'functioning' capitalist deploying the money in creating surplus value to be able to repay. In principle, the borrower could employ the money unproductively but still remain able to return it plus interest, if access to other sources of money was guaranteed. This is common practice in the field of credit and finance.

Fifth, the analytical difficulty would be compounded by the simple observation that if money were assumed generally to possess the use value of being able to generate the average rate of profit, it would hardly be credible for the owner

12 See Marx 1981, ch. 36.

of money not to realise this use value but to remain satisfied with interest. For, after all, deploying the money productively would be another way of 'consuming' this putative 'surplus value' instead of selling it as a loan. What is it that differentiates one type of money owner from another, despite both being capitalists? The answer must be deeper than Smith's evidently superficial argument that the lenders 'could not be at the trouble of employing' their money actively.

In sum, Marx's conjecture that interest-bearing capital is alienated from its owner on condition that it returns having 'realised its use-value of producing surplus-value' is quite impossible to demonstrate logically if analysis focuses on the relation between putative 'monied' and 'functioning' capitalists.¹³ The first approach to credit and interest-bearing capital is seriously deficient.

It is more persuasive to assume that in the lending of money among capitalists, the owner of money does not have exclusive property over the potential to generate surplus value, since the latter already also exists in the business plans of the borrower. Moreover, the money that is lent has probably lain idle in the lender's hands, given that realistic opportunities for average profit making would probably have been exploited, had they existed. Approached in this way, interest would appear to be simply a reward received by the owner of money for parting with his or her property. The possibility of receiving this reward is not specific to capitalist conditions but could be found in many different social systems. This is a better foundation for the second approach to interest-bearing capital in Marx's work.

2 Idle Money, the Turnover of Capital, and Interest-Bearing Capital

The alternative approach to interest-bearing capital in Marx's work is abundantly evident, although it coexists uneasily with the one already discussed. There are two fundamental elements to it.

First, while examining the reproduction of the total social capital in the second volume of *Capital*, Marx showed that concentrations of idle money (money hoards) are systematically generated and held by industrial capitalists and others. They are all purely capitalist forms of money hoarding and include temporarily idle profits, the depreciation funds of fixed capital, precautionary reserves, and reserves that allow for the continuous turnover of capital as production and circulation alternate.

13 See Marx 1981, p. 465.

Second, and also in the second volume of *Capital*, Marx indicated that idle money which is regularly created as the circuit of capital is traversed (i.e. in the course of the turnover of capital) serves as a foundation for the capitalist credit system. The credit system is a set of social mechanisms that mobilise idle money generated in the turnover of capital, transform it into a homogeneous commodity by turning it into interest-bearing (loanable) capital, and redirect it to accumulation. The intentions of lender and borrower, and the uses to which loanable capital is actually put, are entirely irrelevant in this respect.

Put differently, the credit system of a capitalist economy comprises a set of institutions, such as banks and financial markets, that accomplish the reallocation of internally generated spare funds among industrial and commercial capitalists. The money that is lent through the system's mechanisms has already become interest-bearing capital and commands the payment of interest. Given the existence of real accumulation that typically absorbs the bulk of interest-bearing capital advanced by the credit system, interest as a form of revenue acquires an objective social foundation as a share of regularly produced profit.

In this approach, the complex process of lending loanable capital stands for the reallocation of spare funds and the redistribution of surplus value among several 'functioning' capitals, rather than for the advance and remuneration of the capital of the 'monied' section of the capitalist class. Interest payments are a redistribution of surplus value among capitalists, based on the prior generation of idle money by the same capitalists. The motion of the rate of interest reflects the demand for and supply of interest-bearing capital in the normal course of accumulation. Interest could, and does, accrue to all industrial and commercial capitals, and does not provide a foundation for a distinct social group.

Posing the issue in this manner allows for interest-bearing capital also to be created out of the temporarily idle parts of the money revenue of workers and other social groups.¹⁴ The credit system is able to concentrate all spare sums of money across the surface of society precisely because it already is a set of social mechanisms specialising in the concentration and advance of idle money with an objective social basis in the turnover of the total social capital.

Analogously, the advance of interest-bearing capital by the credit system need not be directed exclusively toward real capitalist accumulation but may also be directed toward other activities that do not produce surplus value. Seen broadly, interest is not only a portion of the surplus value generated in accumulation, but also a part of money income accruing to borrowers across

14 Marxist analyses of interest-bearing capital created out of the savings of workers are few. For a coherent treatment, see Harris 1976.

society. If a country contained a sizeable smallholding peasantry as well as a developed capitalist mode of production, for instance, the practices of the credit system could provide a mechanism for the systematic extraction of monetary surpluses from the peasantry.

From this perspective, and despite possessing an objective social foundation in the turnover of capital, interest-bearing capital is theoretically posited at one remove from capitalist accumulation. After all, the transformation of temporarily idle money into interest-bearing capital through the mechanisms of the credit system occurs outside the process of accumulation, despite deriving from and returning to the latter. It follows that the operations of the credit system and the characteristic motion of interest-bearing capital possess a degree of relative autonomy from real accumulation. This autonomy is manifested in the ability of credit institutions to collect spare money from all sections of society, as well as in their ability to continue making profits even if real accumulation faces difficulties. The relative autonomy of the credit system could be an important factor in explaining capitalist economic instability. Nevertheless, despite its relative autonomy, the fact that its objective foundation is provided by the idle money generated by capitalist enterprises means that the operations of the credit system ultimately comply with the requirements of capitalist accumulation.

The second approach to interest-bearing capital in Marx's work has several advantages over the first, including the following:

First, it allows for a structured analysis of the credit system as a set of social mechanisms that systematically form interest-bearing capital in a capitalist society.

Second, it provides a sound theoretical foundation for the analysis of lending for nonproductive purposes to workers, capitalists, and other social classes, which is characteristic of mature capitalism.

Third, it coheres with the casual observation that 'functioning' capitalist enterprises are often able to earn substantial sums of interest by lending their spare funds to others.

Finally, it allows for the analysis of lending that is for investment purposes but might fail to generate the expected returns. Regardless of the use to which the money has actually been put, the lender could still command the payment of interest since the credit system has already transformed the borrowed money into interest-bearing capital. Despite acquiring an objective social foundation in the generation of profit, moreover, interest remains a reward for parting with the lender's property. Thus, interest could be potentially extracted from all money revenues across society, regardless of whether these could be ultimately reduced to surplus value.

3 The Generation of Idle Money in the Turnover of Capital

There are several structural reasons why value systematically abandons the circuit of capital in the normal course of its traverse and becomes idle in the money form. To put it differently, the circuit constantly 'leaks' value, the 'leaks' appearing as sums of money held alongside value traversing the circuit. 'Leaked' (or disengaged) value is a state of rest and approximates a money hoard. Indeed, if it were assumed for the sake of analysis that money was purely metallic and that there was no credit system, value disengaged from the circuit could only be a money hoard.¹⁵

It should be stressed that Marx's approach to money hoarding differs substantially from Keynesian liquidity preference. The latter ultimately relies on unexplained personal and psychological motivations for the hoarding of money.¹⁶ There are no such motivations in Marx's analysis: Hoarding takes place as capital traverses the circuit for objective reasons pertaining to the circuit itself. Furthermore, 'leaks' from the circuit do not imply the shrinking of the flow of value immediately and necessarily. Value is disengaged from the circuit in the money form and for limited periods of time, frequently in order to enable the circular flow as a whole to maintain a given size. Capital can continue to reproduce itself at the same level while regularly forming and dissolving hoards.

In this light, there are four sources of hoarding in the circuit of capital:

First, there are hoards associated purely with circulation. At stage $M - C$, the capitalists have to form precautionary hoards to meet unforeseen payments and purchases, as well as confronting the inevitable price fluctuations of capitalist circulation. These are 'reserve funds', a 'part of the functioning money capital', and a type of money reserve that the capitalist must hold at the very beginning of the circuit.¹⁷ Still, at stages $M - C$ and $C' - M'$, i.e. in the sphere of circulation, the gradual purchase of means of production and labour power and the gradual sale of the finished product also result in money hoards.

Second, there are hoards associated with production. Fixed capital (machinery, plant, and equipment) releases its value gradually and over several repetitions of the turnover of capital. Until a minimum size sufficient for reinvestment would have been reached – for instance, to replace used-up machinery – the disengaged value would form a hoard, i.e. a depreciation fund. For Marx,

15 For the significance of money hoarding in Marx's monetary analysis, see Lapavitsas 1994.

16 As De Brunhoff has pointed out (see 1976, p. 41).

17 See Marx 1978, p. 165.

the most obvious use of these depreciation funds for the individual capitalist would be as a temporary fund from which to accomplish various repairs on the operating fixed capital.¹⁸

Third, and still related to production, money hoards are also formed as profits accrue and become available for reinvestment. Until such profits reached a minimum size consistent with the material characteristics of reproduction, they would accumulate as money funds held by the capitalist. Both depreciation funds and accumulated profits are typically capitalist hoards since they have their roots in capitalist production.

Finally, there are hoards associated with the unity of production and circulation, or with the turnover of capital as a whole. Marx called this type of hoard formation 'the mechanism of the turnover' and devoted considerable effort to ascertaining its technical characteristics, starting with the time dimension of the circuit.¹⁹ Specifically, the stages $M - C$ and $C' - M'$ taken together form the circulation of capital, traversing which would require a definite period of time, called the circulation period; the traverse of stage P would, analogously, give rise to the production period. The part of capital that would be traversing circulation (i.e. commodity output in the process of being sold, and money capital seeking inputs and paying wages) would have temporarily left production and therefore it would not be producing surplus value. The capitalist, however, would be under competitive pressure to keep fixed capital in continuous use and thus to maintain the continuity of production (of both output and surplus value). It follows immediately that at the very start of the turnover of capital, the capitalist must hold money capital aimed at purchasing inputs and paying wages that would be in excess of the requirements of a single production period. Indeed, the capitalist must possess sufficient money capital reserves to continue production until such time as the revenues from commodity output sales would become regular.

It is important to note that in addition to this indisputable conclusion, Marx also attempted to show that parts of the returning sales revenue would become temporarily redundant for the purposes of maintaining the continuity of production is concerned; hence, they tend to accumulate as money hoards.²⁰ Marx called this process the 'mechanism of the turnover'. His discussion of it relied on the analysis of the overlapping patterns of the production period and the circulation period for 'fluid' capital – that is, for cap-

18 See Marx 1978, pp. 248–61.

19 See Marx 1978, ch. 15.

20 See Marx 1978, pp. 353–9.

ital used to purchase labour power and raw materials. His technical substantiation of this argument is incorrect, as is briefly shown below. Nevertheless, the thrust of his argument was both correct and important for our purposes.²¹

To demonstrate the putative operation of the ‘mechanism of the turnover’, Marx assumed that the sale of final output took place ‘at one stroke’, while inputs were purchased gradually.²² The generality of these assumptions is problematic since the sale of final output could very well take place gradually for a broad range of industries. Indeed, it is probably the exception for sales revenue to accrue in one lump sum ‘at a stroke’. Be that as it may, Marx subsequently argued that whenever the circulation period was not an exact multiple of the production period, temporarily idle money would be formed as the sales revenue accrued.²³ The reason would be that under the assumed conditions, the sudden accrual of the sales revenue at the end of each circulation period would necessarily take place after a production period would have already lapsed in part. Hence, it seemed to Marx, a part of the sales revenue would become temporarily unnecessary to finance the continuity of production during that period.

This conclusion is not generally correct, even within the framework of Marx’s assumptions. The value of the sold output (produced in one production period) that accrues ‘at a stroke’ is, by construction, equal to the value of the capital necessary to run one production period. Nevertheless, the accruing money capital is fluid and could be spread over the present and the next period of production. If continuity of production is to be maintained, and given strict regularity of the circulation period (which is assumed by Marx), the lumps of sales revenue accruing at the end of each successive circulation period in the future would be entirely necessary in order to maintain the continuity production and no part of them would be temporarily idle.

Marx is wrong to think that the issue depends on whether the circulation period is an exact multiple of the production period, or not. Indeed, the relative lengths of the production period and the circulation period are altogether irrelevant to maintaining the continuity of production. It is, of course, true that, if the circulation period were highly irregular and uncertain, a part of the lump of sales revenue would probably become temporarily redundant, since capitalists would have used spare funds to keep production continuous in any

21 Engels noted the error in Marx’s demonstration while editing the second volume of *Capital* (see Marx 1978, pp. 359–60). For a full analysis of this issue, see Lapavistas 1992.

22 See Marx 1978, p. 203.

23 See Marx 1978, p. 355.

case. This result, however, would arise from the uncertainty of sales returns and not from the interplay of production and circulation time, which is what Marx had in mind with 'the mechanism of turnover'.

Consequently, uncertainty and irregularity of sales returns would be the way to rescue the valid kernel of Marx's argument, namely that idle money would be formed as a result of maintaining the continuity of the turnover of capital. Capitalists are inevitably confronted with variable and unpredictable flows of sales proceeds, the timing of which would necessarily be different from the scarcely less variable and unpredictable outlays to purchase productive capital (including the payment of wages). Given the competitive pressure to maintain the continuity of production, capitalists would need to hold a precautionary reserve of means of payment to cover shortfalls. This 'turnover reserve' would allow the capitalists to iron out disparities in the timing of flows of receipts and expenditures, sudden changes in production and circulation conditions, and other irregularities. The 'turnover reserve' would not be money 'released' in the course of turnover, as Marx thought, but rather a reserve that must be present at the start of the circuit to ensure the continuity of the turnover of capital.

As has already been noted, the regular disengagement of value from the circuit in the form of various precautionary reserves, as well as temporarily unutilised profits and a depreciation fund, would provide the social foundation for the credit system under capitalist conditions. The credit system collects 'leaked' value, transforms it into interest-bearing capital, and channels it back into real accumulation. By this token, interest-bearing capital does not remain permanently within the circuit of the total social capital. Rather, it is systematically formed outside the circuit, subsequently to enter and exit it continually. The full significance of this point for the remuneration of interest-bearing capital is discussed below, after a brief and necessary digression on Marx's analysis of merchants' capital.

The Rate of Interest and the Rate of Profit

Merchants' capital, comprising commercial and money-dealing capital, is an ancient form of capital closely linked to interest-bearing capital.²⁴ In a capitalist economy, commercial capital buys and sells commodities, remaining entirely within the sphere of exchange. Commercial profit accrues through the resale of commodities originally bought by merchants, rather than through the employment and exploitation of labour power. The social function of commercial capital is to minimise the costs of circulating commodities for capital as

24 See Marx 1981, ch. 20.

a whole.²⁵ Consequently, there are objective grounds for the remuneration of commercial capital out of total surplus value on the same *pro rata* basis as industrial capital (i.e. receiving the average rate of profit).

Along similar lines, money-dealing capital is a form of capital that specialises in managing the money that is necessarily present in the sphere of exchange, and thus it also remains entirely within the sphere of circulation. Given extensive capitalist circulation, accounts have to be kept, deposits have to be safeguarded, sums of money transferred, and, above all, money of one nationality has to be changed into money of another. Money-dealing capital reduces the costs of these activities on a social scale and, consequently, it is remunerated on the same basis as commercial and industrial capital, i.e. it draws the average rate of profit. As the capitalist credit system grows and develops, banks tend to appropriate the functions of money-dealing capital, leading to its disappearance as an independent form of capital.

Both commercial and money-dealing capital (and also banking capital, insofar as it is a developed and altered form of money-dealing capital) are integral parts of the sphere of circulation within the circuit of the total social capital. They minimise the costs of circulation and do not leave the circuit as part of their intrinsic movement. Since they are capitals integral to the circuit, they take part in the redistribution of total surplus value on the same footing as industrial capital. In short, they participate in the formation of the average rate of profit.

Interest-bearing capital, on the other hand, is continually formed outside the circuit, entering and exiting the latter. Put differently, interest-bearing capital mobilises the spare money funds present in the course of accumulation, reallocating these among other capitals integral to the circuit (thus contributing to the social production of surplus value).²⁶ As a result, interest-bearing capital also earns a share of the total surplus value, but not on the same basis as industrial, commercial, and money-dealing (or banking) capital. Interest-bearing capital does not take part in the determination of the average rate of profit but earns interest instead.

25 The operating costs of commercial and money-dealing capital (mostly the costs of purchasing labour power) are net impositions on the total surplus value. Commodity prices, therefore, need not diverge from values on account of merchant's profit. Panico (1980 and 1988) has treated this issue erroneously; see Fine 1985–6 and 1988. The suggestion made by Panico (1980 and 1987), namely that the bankers' reserve of own capital could fall to zero, is also incorrect.

26 For a systematic summary of several of Marx's arguments on the social role of the credit system, see Harvey 1982, pp. 260–72.

This approach to the nature of interest-bearing capital makes it easier to appreciate Marx's claim that the average rate of profit is normally higher than the average rate of interest and usually forms its upper limit (except for some moments of the capitalist business cycle).²⁷ This is a characteristic claim of Marxist economics that is in complete contrast to neoclassicism and Keynesianism, both of which postulate the tendency of the rate of profit and the rate of interest toward equality. For Marxist economics, the inequality of these two rates reflects the structural difference between capital that is integral to the circuit and a capital that enters from the outside and subsequently exits the circuit. It also reflects the ultimate dependence of interest-bearing capital on the spare funds generated by industrial capitals.

For capitals that are integral to the circuit, the principle of the mobility of capital underpins the equalisation of the rate of profit. The social capacity necessary to produce surplus value is constantly reallocated among the different branches of production (including activities specific to circulation) ensuring the *pro rata* remuneration of all capitals participating in the operations of the circuit. In the light of our preceding analysis, it is clear that the principle of capital mobility cannot operate in the same manner between interest-bearing capital and capitals integral to the circuit. To become interest-bearing capital, for instance, a given industrial capital would have to abandon the circuit altogether, thereby removing itself from the social capacity to generate surplus value, rather than merely reallocating this capacity among different tasks. Equivalently, if a sum of interest-bearing capital permanently transformed itself into industrial capital, it would be simultaneously establishing the conditions for its own future reconstitution through the augmentation of the flows of the circuit of the total social capital and thus the generation of idle money.²⁸

27 See Marx 1981, p. 482.

28 Harris (1981) and Fine (1985–6) suggest that a systematic difference between the rate of interest and the rate of profit might arise from the existence of barriers between financial and industrial capitalists, treated as fractions of the capitalist class. However, it is hard to see how such barriers could be sustained as long as financial capitalists could not dictate the actual use to which loans would be put. It would be less problematic to account for the difference between interest and profit in terms of the structurally different location of industrial and interest-bearing capital relative to the circuit of the total social capital. Despite the absence of barriers between the two areas, the mobility of capital would not lead to the equalisation of the rate of profit and the rate of interest.

It is evident, however, that the complete demonstration of the tendency of the rate of interest normally to lie below the rate of profit would require a considerably more complex analysis than these general considerations.²⁹ The following two factors are critically important in this connection.

First, real accumulation inherently moves along a cyclical path, in the course of which the rate of interest and the rate of profit tend to move in opposite directions.³⁰ Suffice it to state here that although the average rate of profit in principle forms an upper limit for the average rate of interest, there are moments in the cycle when interest payments would peak and consume not just the profits but also the very capital of borrowing capitalists. At those moments, the average rate of profit would not form an upper limit for the average rate of interest. In other words, despite its socially beneficial function of mobilising and reallocating spare funds, interest-bearing capital could also eat into the capital of industrial capitalists. This potentially destructive role would be fully in line with the relatively autonomous, partly external, position of interest-bearing capital relative to the circuit of the total social capital.

Second, the institutional structure of the credit system and its operational ability systematically to mobilise funds across society also matter greatly for the determination of the rate of interest relative to the rate of profit. Because the credit system is relatively removed from the material aspects of the reproduction of the total social capital, such as the technology of production and the standard of living of the working class, determination of the flows and prices of credit would depend heavily on the peculiarities and the character of the financial institutions comprising the credit system.

To put it differently, no objective material aspect of social reproduction is reflected in the formation of the rate of interest, and there is no objective material basis for the division of total profit into interest and profit of enterprise. By contrast, the rate of profit captures in a capitalistic way the fundamental process of generating spare resources for reinvestment and the sharing of these resources among competing capitals. There is a material foundation for the rate of profit, namely the organic composition of the participating capitals, the length of the turnover of capital, and the length and the division of the working day. This profound difference lies at the heart of Marx's well-known rejection of the notion of a 'natural' rate of interest.³¹

29 For a discussion, see Itoh and Lapavistas 1998, ch. 6.

30 See also Lianos (1987) on Marx's analysis of the fluctuations of the rate of interest in the course of the business cycle.

31 See Marx 1981, p. 487. Note that Marx certainly did not argue that 'it is impossible to make

The rate of interest simply expresses a division of total profit, based entirely on the balance of demand for and supply of interest-bearing capital. In the course of the capitalist business cycle, regularities can certainly be identified in the motion of the rate of interest, but there would be no more profound foundation for these than the alterations in the market conjuncture. The rate of interest is a pure price without a necessary relationship to the law of value. Precisely because of this, however, the rate of interest achieves a sharp clarity in the markets for interest-bearing capital. In contrast, the rate of profit, expressed as the movement of capital among different branches of production, cannot achieve a similar numerical clarity.³²

Finally, the preceding analysis does not imply that credit in the form of money lending and borrowing amounts solely to concentration and reallocation of idle funds generated in the turnover of capital. Credit is an inherently flexible and pliable social relationship. In a developed credit system, to acquire credit is to possess the liabilities of financial institutions. It is certainly possible that such liabilities could be created within the credit system without idle funds having first accrued from real accumulation. The social role of the credit system is, at one remove, to concentrate money value disengaged from the circuit, but, at a further remove, it is also to take a view on the prospects of real accumulation in order to allocate interest-bearing capital.

Financial institution liabilities could be created purely on the expectation of future returns, and in the hope that these would subsequently validate the liabilities. The credit system is necessarily a repository of elements of rational foresight within the unplanned order of the capitalist system. By the same token, the formation of the rate of interest would also appear to depend on expectations and assessments of the future. In this regard, individual capitalists would not normally borrow funds if the rate of interest exceeded the expected rate of profit on projected activities. That is yet another dimension of Marx's fundamental proposition that the rate of interest would normally lie between zero and the average rate of profit.

Neoclassical Theory of Interest and Optimal Contract Design

It is instructive to juxtapose Marxist analysis of interest-bearing capital with the recent mainstream literature on the analytical foundations of lending and banking that incorporates the economics of information and attempts to pro-

any generalisation about the behaviour of the rate of interest', as Robinson (1966, p. 69) has suggested.

32 As Marx memorably noted (1981, pp. 488–90).

vide theoretical foundations for the influence exercised by the credit system on growth and output fluctuations. The underpinnings of this theory are profoundly neoclassical, characterised by methodological individualism.

The literature has no fundamental quarrel with the Arrow-Debreu general equilibrium analysis of exchange which, since it assumes perfect information available to all market participants, does not significantly differentiate between own capital and borrowed capital, and leaves no room for financial intermediary institutions, such as banks. Rather, the literature's aim is to establish analytical room for credit within a general equilibrium framework, given that information is asymmetrically available to exchange participants.

The original insight in this field goes back to Akerlof's 'lemons' paper, which argues that sellers know more about their used cars than prospective buyers.³³ Consequently, market price reflects the buyer's perception of average quality, and the sellers of poor cars ('lemons') receive a premium at the expense of high-quality cars. This might lead to a collapse of the used car market. Along similar lines, Jaffee and Russell argue that lenders cannot distinguish among 'good' and 'bad' borrowers prior to lending.³⁴ Thus, the interest charged must contain a premium to cover for the bad risks. Since, moreover, the probability of default varies with the size of the loan, adverse selection sets in: 'Good' borrowers prefer small loans whereas 'bad' borrowers prefer large loans.

In a slightly different vein, Leland and Pyle argue that entrepreneurs know more about their projects than the lenders.³⁵ The borrowing entrepreneur signals the true value of the project to the market by dedicating an amount of his or her own capital to the project, varying directly with the project's risk. Gathering information about project riskiness could not be done commercially because the information would become public and thus lose its value soon after it would start being traded. Consequently, financial intermediaries would emerge that collected such information, incorporated it directly into their own assets, reduced their risk by diversifying their assets, and thus had no need to not hold large amounts of their own capital.

Townsend made a significant breakthrough in this debate.³⁶ In an Arrow-Debreu world of perfect information, there would be no room for a typical debt contract – that is, for an agreement to return to the lender a certain sum of money (principal plus interest) that would not be conditional on the actual returns to the borrower's project. In this world, it would be on average more

33 See Akerlof 1970.

34 See Jaffee and Russell 1976.

35 See Leland and Pyle 1977.

36 See Townsend 1979.

beneficial for the owner of money to enter into a partnership-type agreement with the project owner, dividing the actual project proceeds when these materialised, instead of entering into a standard debt contract.³⁷

Townsend's explanation for the existence of money lending is premised on the assumption that the owner of a project would know more about it than the owner of money. An agreement to divide the actual proceeds would give the project owner an incentive to lie and defraud the money owner by concealing some or all of the returns. To avoid this moral hazard, the money owner must monitor the project owner. Since, however, monitoring is a costly process, the optimal contractual arrangement between money owner and project owner is not immediately apparent and must be investigated.

Townsend offered a resolution for this theoretical problem that has been subsequently refined by several others.³⁸ Given the methodological individualism of neoclassicism, the optimal monitoring arrangement would be one that maximised the expected returns (and so the expected utility) of the money owner out of the putative agreement. Monitoring, however, is costly, and thus entails a 'dichotomous' solution based on a fixed return specified for the money owner. If the fixed return was actually received there would be no monitoring of the project owner by the lender, thus avoiding the monitoring costs; if it was not received the project owner would be declared in default (bankruptcy), the actual returns would be monitored, and as much as possible of the original advance would be recouped out of the project's assets. Therefore, in a world of informational asymmetry, the optimal contract between a money owner and a project owner would be debt with possible costly default.

This fundamental analysis of the nature of debt has been used extensively in recent years to derive conclusions about the nature and practice of financial intermediation. If there are many lenders for the same borrower, for instance, the dead-weight costs of monitoring would be multiplied in a socially wasteful way. Thus, for Diamond, financial intermediaries are an endogenously arising, socially superior, solution for the monitoring problem, since it reduces costs.³⁹ Banks are 'delegated monitors'. They write, monitor, and enforce contracts

37 Strictly speaking, it would not be money but an 'endowment' that would be advanced, since general equilibrium analysis faces formidable difficulties in logically incorporating money. There is something decidedly unsatisfactory, not to say odd, about a first-principles analysis of interest-bearing capital that does not explicitly recognise its monetary character.

38 See, for instance, Diamond 1984, Gale and Hellwig 1985, and Williamson 1986. See also Morgan 1994, who gave to the argument an elegant mathematical simplicity.

39 See Diamond 1984.

with ultimate borrowers; they hold well-diversified portfolios; they provide a smoother pattern for the returns on lender assets. Diversification is key since it makes the probability of bank bankruptcy very small. Consequently, while the monitoring costs are not duplicated by the various lenders, the banks need not be monitored themselves. Subsequent extensions of this approach have aimed at establishing reasons why the banks themselves might ration the volume of their lending below the market-clearing levels, a practice that might contribute to business fluctuations if some external shock initially set off such fluctuations.⁴⁰

Marxist political economy has argued for more than a century that interest results from a conventional division of total profit – a division, moreover, that reflects nothing other than the balance of demand and supply of interest-bearing capital. In this regard, the modern literature has rediscovered the wheel, adding some entirely unselfconscious insight into the noxious nature of trust among capitalists.

The mainstream ‘proof’ of the optimality of the debt contract bears all the methodological hallmarks of neoclassicism. What matters is not how the world is, but why it diverges from the ideal model of market interaction among individuals. The institutional and historical background within which such interaction becomes possible is entirely omitted from the equations. The ‘proof’ is only a game in logic, equally applicable to all other instances in which a person with a material resource meets a person with some specialist knowledge, exchange being the only social nexus between the two. That there is nothing specific to debt in the conclusions of this type of analysis is evident from the fact that similar results would (and do) arise from the application of its approach to the labour market.

Analysis based on political economy need not ‘prove’ that a ‘dichotomous’ debt contract is somehow optimal: It is a social and historical datum that the lending of money, aiming at interest, differs generically from direct investment in production, aiming at profit. The point is to specify the precise social content of this difference, as well as the social relations involved in the interaction of profit and interest. With this in mind, the assumption of a pure ‘money owner’ confronting a pure ‘project owner’ is weaker than Marx’s analogous (and problematic) distinction between a ‘monied’ and a ‘functioning’ capitalist. At least Marx’s assumption ascribed a definite social content to this distinction in terms of fractions of the capitalist class sharing out the available surplus value.

40 Gertler (1988) offers an informative overview. See also Bernanke and Gertler 1989, and Morgan 1994.

Nonetheless, as has been argued above, it is still misleading to assume pure 'money owners' and 'project owners'. The capitalist lending of money is best analysed in terms of the mobilisation of idle money generated in the essential motion of accumulation, not least since industrial, 'functioning' capitalists also partake of the advance of 'monied' capital.

In a capitalist economy, moreover, interest is normally a share of total profit. The rate of interest is a pure price that acquires society-wide applicability when a credit system is in place, which concentrates and directs spare money capital toward the social mechanism for the expansion of value. The return of interest-bearing capital to its owner expresses its relative autonomy with respect to real accumulation, its arm's-length relationship with the industrial capital, and hence also its potentially predatory and essentially indifferent attitude to the process of production.

The asymmetry of information between lender and borrower is a poor substitute for the distinction between, on the one hand, idle money becoming interest-bearing capital alongside accumulation and, on the other, capital functioning in the production of surplus value. In neoclassical theory, the richness of social determinations contained in the distinction between interest-bearing capital and industrial capital, and the primacy of production of surplus value in the course of social reproduction, collapse into the banal observation that the lender usually knows little about the business of the borrower.

Conclusion

There are two approaches to interest-bearing capital in Marx's mature work. The first concentrates on the relationship between a 'monied' capitalist, who possesses money, and a 'functioning' capitalist, who possesses an investment project. In this approach, interest-bearing capital is formed as money's capacity to produce the average rate of profit is traded between the two capitalists. Interest is a share of the profits generated on average by 'functioning' capitalists. This approach, which was heavily influenced by the tradition of classical political economy, is problematic for several reasons but primarily because it does not allow for a satisfactory analysis of the separate interests of lending and borrowing capitalists in the course of industrial capitalist accumulation.

The second approach concentrates instead on the generation of idle money in the turnover of the capital, which is subsequently transformed into loanable capital by the credit system. Lending and borrowing of money capital and the payment of interest are thereby treated as the reallocation of spare money funds and the redistribution of surplus value among several 'functioning' capit-

als. This approach also allows for the theoretical treatment of the credit system as a complex set of mechanisms that mobilise idle money and transform it into loanable capital, which operates at one remove from the process of real capital accumulation. This is a more solid basis on which to analyse the motion of the rate of interest as well as Marx's claim that, on average, the rate of interest tends to be below the rate of profit.

On Marx's Analysis of Money Hoarding in the Turnover of Capital*

1 Introduction¹

The hoarding function of money figures prominently in Marx's domestic and international monetary analysis.² In rejecting the Quantity Theory of Money, Marx argued that the money stock of a country is constantly re-divided between a hoarded and a circulating quantity.³ Re-division enables the quantity of circulating money (the velocity of which could remain unchanged) to stay in line with changes in the price level.⁴ Hoarded money, furthermore, comprises a national reserve of international means of payment, necessary for meeting payments on current or capital account.⁵ In this respect, Marx clearly belonged to the anti-Quantity-Theory tradition in monetary theory that goes back at least to Steuart's critique of Hume, and to the work of the Banking School, particularly Tooke and Fullarton.⁶

Money hoarding was also regarded by Keynes 'as a first approximation to the concept of *liquidity-preference*'.⁷ Keynes rejected the Quantity Theory of Money on the basis of the speculative motive to hold money: exogenous increases in the money supply operate on the speculative motive, cause reductions in the rate of interest, and might result in rises in prices or rises in employment, or

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2 See, for instance, Marx 1976b, pp. 227–32, and 1970, pp. 125–37.

3 See Marx 1976b, pp. 231–2.

4 For a fuller analysis of this point, and for a comparison with Cambridge theories of velocity, see Lapavistas 1994.

5 See Marx 1976b, p. 243.

6 See, respectively, Steuart 1966, Bk II, ch. 27; Hume 1955; Tooke 1959, ch. 2; and Fullarton 1969, ch. 4.

7 See Keynes 1973, p. 174.

both.⁸ The income velocity of the entire money stock is variable. Keynesian liquidity preference, although a function of the rate of interest and of price expectations, ultimately results from the psychological time preferences of the rational individual. The psychological element of the Keynesian speculative motive is not completely determined by the functioning of the money market.⁹

Sections 2 and 3 of this chapter show that, for Marx, the sources of money hoarding are to be found in the essential operations of the circuit of capital, the latter being a ceaselessly expanding circular flow of value that incorporates production and circulation. Within that framework, hoards emerge as temporarily immobile quantities of value in the money form.

The sources of hoards are rooted in production, in circulation, and in the articulation of the two, rather than in the psychological motives of individual capitalists. Moreover, insofar as the hoarding tendencies could be expressed as individual motives to hoard, these would be fully explicable in terms of the properties of money within the circuit of capital. Section 3 also shows that Marx's analysis of hoard formation due to the articulation of capitalist circulation and production suffers from some serious technical weaknesses. Finally, Section 4 examines the broader significance of money hoard formation for the analysis of the capitalist credit system.

2 Hoarding Tendencies in Simple Circulation Compared to Capitalist Circulation and Production

2.1 *The Difference between Simple Circulation Hoards and Capitalist Hoards*

The theoretical abstraction of simple circulation is normally summarised as Commodity–Money–Commodity, or C–M–C, and leaves production out of account. Given that money is the monopolist of exchangeability, simple circulation hoards pose few conceptual difficulties: they would be mostly precautionary hoards of means of payment held because they would enable buying without prior selling. Such hoards could accomplish the settlement of commercial debts at all times, and could also offer protection from the uncertainty that is intrinsic to an unconsciously organised process of exchange. Simple circulation hoards would also be formed unwillingly when disruptions of the process

8 Keynes 1973, chs. 13, 15.

9 See De Brunhoff 1976.

of exchange would occur rendering some of the money in circulation redundant (on such occasions, hoards of unsold commodities would also be formed).

The formation of simple circulation hoards is naturally associated with complex psychological motives. Within Marx's analysis, however, the psychological aspects of money hoarding are completely explicable by money's role as a universal equivalent that monopolises direct exchangeability with all other commodities.¹⁰ Consider the following two examples.

First, what Marx calls an exchange participant's 'passionate desire to hold fast to the product of the first metamorphosis' [i.e. to M in $C-M$, which is the money that results from the sale of a commodity] would have objective foundations insofar as money monopolises purchasing power.¹¹ Moreover, since the larger a hoard is, the more that it contains of the universal equivalent, it follows immediately that 'The hoarding drive is boundless in its nature'.¹² Hence the psychological disposition of the hoarder is typically *auri sacra fames*, the accursed greed for gold.¹³

Second, the fact that the exchangeability of money is universal but that of other commodities is limited, implies that $C-M-C$ is fundamentally asymmetric: it is generally easier to buy than to sell. The effects of this asymmetry are exacerbated by the random and unplanned character of the circulation process, which puts a premium on the ability to buy at all times. The result is the formation of precautionary hoards by exchange participants. Here too, the psychological urge to hoard money has objective social foundations, and individual behaviour would reflect underlying social reality. These psychological elements of hoarding are at once more profound and less arbitrary than Keynes's liquidity-preference.

If specifically capitalist economic conditions were assumed, commodities would become forms of capital and would thus embody surplus value generated in production. Capitalist circulation contains all the characteristics of simple circulation, therefore our discussion of hoarding hitherto remains valid. However, the sources of hoard formation would become more systematic, and both the essence and the form of hoards would be altered.

To establish this claim, it is best to employ the money capital (rather than productive or commodity capital) form of the circuit of capital:

$$M-C (lp, mp) \dots P \dots C' - M' (M + \Delta M)$$

¹⁰ See Marx 1976b, ch. 1.

¹¹ Marx 1976b, p. 227.

¹² Marx 1976b, p. 230.

¹³ See Marx 1970, p. 132.

At stage $M-C$, money capital, M , purchases labour power, lp , and means of production, mp . At stage P these inputs are transformed into finished output, C' , which contains surplus value generated through the exploitation of labour. At stage $C'-M'$, finished output is sold, resulting in the return of the original money capital plus profit ΔM . Stages $M-C$ and $C'-M'$ together represent the sphere of exchange or circulation, and stage P represents the sphere of production. Surplus value gives to the circuit its capitalist character, and constitutes a point of qualitative difference between capitalist and simple circulation. It is instructive to think of the circuit as a circular flow diagram.¹⁴

Profit that is unproductively consumed by the capitalist is largely ignored in the rest of our analysis because the private hoarding that would result in this instance would have determinants lying largely outside the structure of the circuit. Nonetheless, private hoarding by capitalists (and workers) in contemporary capitalism is undoubtedly important, and its determinants contain historical, customary, conjunctural and voluntary factors.¹⁵

Following Marx, we will also abstract from relations and instruments of credit because these could be consciously manipulated by participants in circulation, thus distorting the pure and elemental form of the hoarding process.¹⁶ Some of the implications of this important point are considered below. In this connection, it should be noted that money in the circuit of capital is always money capital (with the exception of the disregarded private revenue of the capitalist). Consequently, for Marx, capitalist hoarded money is uniquely capable of commencing further capital circuits, and thus it represents stocks of latent, or potential, money capital.¹⁷ This attribute of capitalist hoards constitutes their fundamental difference with simple circulation hoards, and contributes to the development of the capitalist credit system.

2.2 *Hoards Related to Capitalist Circulation*

Within the framework of the circuit, and at stage $M-C$, one type of money hoard formed by capitalists would be precautionary reserves of money. For Marx, these precautionary hoards (reserves) formed at stage $M-C$ comprise a 'reserve fund' as well as 'a part of the functioning money capital' of the capitalist.¹⁸ Typical factors inducing their formation would be unforeseen payments and

14 See Fine 1975, p. 47.

15 Harris offers an analysis of the relationship between workers' revenue and interest-bearing capital from a Marxist standpoint (Harris 1976).

16 See Marx 1978, pp. 576–7.

17 Marx 1978, pp. 396–7.

18 See Marx 1978, p. 165.

purchases, sudden upsets of commodity prices, rapid changes in prices as technology is revolutionised, and price fluctuations accompanying economic crises. Had we allowed for the presence of commercial credit in our analysis, a precautionary hoard of means of debt settlement (means of payment) would also have belonged here. Such reserves that must be present (committed) at the start of the circuit, and are constantly replenished as the circuit is traversed.

Still at stage $M-C$, a second type of money reserve would be formed out of the parts of M that would be expended gradually on labour power and means of production. These would be peculiar hoards, and their character is elucidated in Section 3. Suffice it to note here that a capitalist must advance variable capital to buy labour power at the beginning of the turnover period, but pays workers in shorter intervals (weekly or monthly), thus some of the initially advanced variable capital would lie idle for periods of time.

Naturally, if a particular capital had a turnover period that was shorter than a week or a month, no reserves would be formed out of the advance of its variable component. Yet it is reasonable to assume that capitals with turnover periods shorter than the conventional time span for the payment of wages would be insignificant exceptions. By the same token, the purchasing of at least some means of production would be necessarily gradual – notably the means of production purchased with circulating constant capital, such as, for instance, energy. The implication is that some parts of M would remain in the money form throughout the turnover of capital.

Analogously, at stage $C'-M'$, money hoards would be created as the final output would often be sold piecemeal, thus resulting in money capital that would not be temporarily used to purchase inputs. To be more precise, for Marx, the sales revenue:

whether it flows back quicker or more slowly, according to the turnover of capital, it always flows back bit by bit. One part of it is just as regularly spent again at short intervals, i.e. the part transformed back into wages. Another part, however, that transformed back into raw materials, etc, has to be accumulated for a longer period of time as a reserve fund, either for purchase or for payment.¹⁹

The character of the hoard forming tendencies out of sales revenue and the articulation of piecemeal sales of output with gradual purchases of inputs is

19 Marx 1978, p. 333.

examined in detail in Section 3. Note, finally, that sudden price changes and disruptions of the exchange process could also result in involuntary generation of stocks of money capital.

2.3 *Hoards Related to Capitalist Production*

In the sphere of production (stage P), two systematic sources of money hoards (more accurately, reserves of potential money capital) could be identified. First, for fixed constant capital to complete its turnover, several repetitions of the production process must take place. During this time, both circulating constant capital and variable capital complete several of their own turnovers. This protracted and gradual release of the value of fixed constant capital results in accumulations of potential money capital until such time as a minimum size sufficient for reinvestment would have been reached.

Moreover, if we move the reproduction of an individual capital and consider that the aggregate social capital, and especially in view of the simultaneous existence of several vintages of fixed constant capital at any point in time, it is clear that some sections of the capitalist class would be investing in new fixed constant capital, while other sections would be accumulating depreciation funds. It is intuitive that the capitalist class as a whole would be simultaneously hoarding and dishoarding. Complex conditions would have to obtain between the independent decisions to hoard and to dishoard for aggregate reproduction to be possible.²⁰

Second, reserves of potential money capital would also be generated as ΔM would accrue as profit. Naturally, profit could be either unproductively consumed by the capitalist or reinvested. In principle, for reinvestment to occur there must be a minimum size of funds that is consistent with the material characteristics of the process of production. Accruing profit would accumulate as latent money capital until such time as the appropriate size of funds would have been reached. This is a characteristically capitalist form of hoard creation.

3 **Money Hoarding as Capitalist Production is Articulated with Circulation**

Marx discussed extensively a further type of systematic hoard formation (reserves of potential money capital) that arises due to the articulation of capit-

²⁰ Marx 1978, pp. 572–7.

alist production and circulation; he evidently considered this source of money hoarding to be very important in a capitalist economy.²¹ There is substantial repetitiveness and error in Marx's treatment of this issue, which was noted by Engels when he edited the second volume of *Capital*.²² Section 3 of this chapter considers the strengths and weaknesses of Marx's analysis of such hoards by means of a simple formalisation of the circuit of capital, which is still based on Marx's own work.²³ Before the theoretical schema could be presented, however, it is necessary to undertake a short analytical detour on the concept of time in the circuit of capital.

3.1 *Time in the Circuit of Capital and Its Impact on Turnover*

Capital is a continuous circular movement founded on the continuity of production; the existence of continuity of production is dictated by competitive pressure and is shaped by constant technical revolutions in production methods that make past techniques obsolete.²⁴ To ensure continuous production it is necessary that an individual capital should exist simultaneously in all stages of the circuit: one part must be present as workers, raw materials, plant and equipment, another as inventories of finished goods, and yet another as money.

It follows that the circular movement of an individual capital could not properly be represented as the linear traverse of the various formal stages of the circuit by a given sum of capital value. Rather, the real existence of the circular movement could only be the unity of the productive, commodity, and money forms of the circuit, as well as the unity of the stages of circulation and production.

For such unity to become real, however, it would be vital for the constituent elements of an individual capital ('aliquot parts' of the entire capital advanced in the terminology of *Capital*, or (say) dollars of capital value in more modern terms) to traverse the circuit sequentially. This requirement is evident if we consider that for production to be continuous, it would be absolutely imperative

21 Marx 1978, ch. 15.

22 Marx 1978, pp. 359–60.

23 Foley 1982b, 1983a, 1986a, and 1986b, has put forth a developed formalisation of the circuit of capital which is technically far superior to that of Marx. However, Foley says little on money hoards. Moreover, since his model leaves out the concept of the capital advanced, it is not immediately clear that it would be capable of analysing the hoarding phenomena that Marx intended to capture through the 'mechanism of the turnover', i.e. due to the articulation of production and circulation.

24 See Marx 1978, p. 185.

for dollars of the capital value originally advanced not to skip any stages of the circuit systematically, for that would inevitably create gaps in the overall flow of value.

Consequently, the circular movement of an individual dollar of capital value, in contrast to the circular movement of the whole of the capital advanced, could indeed be represented as the linear traverse of the formal stages of the circuit. The circuit of an individual dollar of capital value, therefore, would exist in reality as the discontinuous presence of one out of the three stages. An individual dollar of capital value completes the circuit by incessantly abandoning one stage and entering the next, while the entire capital advanced completes the circuit by existing simultaneously in all three stages.

It follows immediately that the continuity of the circular flow of an entire capital advanced would hinge on individual dollar components of its value existing in all the different phases of their own circuits at any moment in time. This is a result of considerable importance for our analysis: continuity of the circuit of an individual capital is predicated on the incessant discontinuity of the circuits of its individual dollar components. The derivation of this result by Marx represents a particularly elegant application of the dialectic, and is instrumental to analysing the concept of time in the circuit of capital.²⁵

In this light, the concepts of time that are relevant to the circuit ought to reflect the circuit's own complex nature. For one thing, circuit time is necessarily (and evidently) different from the real continuous time that confronts an operating enterprise. For another, circuit time is a complex concept that must be constructed out of simpler ones. As was established above, the unity of the circuit of an individual capital is the result of the incessant discontinuity in the circuit of each dollar of its value. It is shown below that time concepts that are appropriate to the (simpler) circuit of an individual dollar of a capital's value are the building blocks for the time concepts that are appropriate to the circuit of an individual capital as a whole.

For the turnover of a dollar of capital value, then, the following three time lengths are significant: production time (p), corresponding to the traverse of production; the first part of circulation time (c_1), corresponding to the traverse of $M-C$; and the second part of circulation time (c_2), corresponding to the traverse of $C'-M'$.²⁶ In economic terms, means of production and labour power

²⁵ Marx 1978, p. 184.

²⁶ Marx (1978, chs. 12 and 13) differentiates between working time, i.e. the time during which labour is actually applied to the product, and production time, a broader concept which

are bought with one dollar of money capital during c_1 , the inputs become finished goods during p , and the output is sold for money (cost plus surplus-value) during c_2 .

These time lengths are consecutive intervals reflecting the successive entry of a dollar of capital value into the various stages of the circuit (or the abrupt transformation of the dollar of capital value into productive, commodity, and money capital at the end of c_1 , p and c_2 , respectively). Therefore, the turnover time of a dollar of capital value is the sum of its production and circulation times, and each turnover period starts at the end of the last one. It is natural to think of the process as the flow of a unit of liquid in a circular system of pipes and tanks.

For the turnover of an entire capital, on the other hand, the concepts of production and circulation need to be considerably elaborated, and physical analogues (such as pipes and tanks) could be misleading. It is vital to note, first, that capital always has a definite magnitude as well as being an entity that is in perpetual circular motion. The exact determination of its magnitude is not particularly important for our purposes, as long as it is accepted that a definite size exists and must be advanced as money at the start of the circuit (in the absence of credit relations).²⁷

Given a definite amount of capital advanced, the circulation and production time of capital in the unity of the circuit would necessarily refer to the time that is necessary to complete each successive transformation by the whole of the capital advanced (i.e. from money, to production elements, to commodities, and back to money as a whole). Since an individual capital must simultaneously exist as money, production elements, and finished output at any moment in time, it follows that its circulation and production times would be defined simply by the time it takes for capital value equal in magnitude to the capital advanced to flow from one stage into the next.²⁸ This is in sharp con-

includes the time that the product spends in production without having labour applied to it, for instance, the period during which grapes ferment in the process of making wine. For our purposes this distinction is not important, and we will employ the broader concept throughout.

27 For Marx, as ample evidence confirms, the determinants of the size of the individual capital advanced are primarily the scientific and technical aspects of the production process (see, for instance, Marx 1978, pp. 335–6).

28 We are largely abstracting from the advance of fixed capital, which allows us more easily to define the production period purely in terms of flows and sums of value. Clearly, for any capital that is advanced to purchase plant, equipment, and so on, the production time would depend critically on the use value of the commodity in question, and the

trast to each single dollar of its value, which must traverse all stages separately and sequentially. Consequently, the circulation and the production time of an entire capital would depend critically on the specific way in which it would be transformed from money, to production elements, to finished commodities, to money, thus reflecting the peculiarities of its industry.

It is apparent from the preceding discussion that the constituent dollars of the aggregate capital advanced would generally differ from each other in the time they spend in the successive stages of the circuit, and thus their individual turnover times would differ. A dollar spent to purchase raw materials, for instance, would have a very different turnover time to a dollar spent on employing labour power. This is ultimately why the entire capital advanced would be transformed gradually into each of the successive forms of the circuit, and why it could be found in all stages of the circuit at once, as Marx correctly claimed:

A part of the capital exists as commodity capital that is being transformed into money, but this is an ever-changing part, and is constantly being reproduced; another part exists as money capital that is being transformed into productive capital; a third as productive capital being transformed into commodity capital. The constant presence of all three forms is mediated by the circuit of the total capital through precisely these three phases.²⁹

Given the gradual passage of the entire capital advanced from one stage to the next, it follows immediately that there would be some overlapping of the two parts of its circulation time with each other and with production time. Thus, production would commence while some of the capital advanced would still be in the money form, some finished output would be sold while production would still be taking place, sales revenue would accrue while some of the capital advanced still existed as finished output, or even as production inputs.

material characteristics of its production process. Equal capitals advanced in shipbuilding and in chemicals, for instance, would require quite a different approach to determining their production time; if nothing else, the output of shipbuilding is quite discrete, while the volume of the output of chemical production has to be specified fairly arbitrarily. Even so, and despite their significance for determining production time, these considerations hardly matter for locating the difference between the circuit of a dollar of capital value and the circuit of capital as a whole, which is what concerns us here. As is shown below, Marx also abstracted from fixed capital in deriving the 'mechanism of turnover'.

29 See Marx 1978, p. 184.

Therefore, the first important result in this connection is that the turnover time of an individual capital would be less than the sum of its circulation and production times.³⁰

This is in sharp contrast with the turnover time of an individual dollar of capital value, which is the simple sum of these times. Moreover, since production is continuous, successive turnovers of the capital advanced would not follow each other consecutively in time but would overlap. That, again, is a very different outcome from the turnovers of an individual dollar of capital value, which would follow each other consecutively.

Marx was fully aware of the difference between the turnover time of a dollar of capital value and that of the entire capital advanced, but in the technically demanding parts of his analysis, he tended to assume that the circuit is 'in its simplest form, so that the entire capital value always moves at one stroke from one phase to the other'.³¹ That is, the whole of productive capital is bought at once, while all of finished output is produced at once and then also sold at once.

The assumption that capital value is generally transformed 'at a stroke' allowed Marx to stress that capital that is in circulation cannot also be in production. Given that surplus value is generated only in production, it follows immediately that the shorter the circulation time, the larger the amount of surplus value produced in a given period of time. When transformation 'at a stroke' is assumed, this conclusion is apparent, although it is no less valid if one assumes the gradual emergence of capital from one stage to the next, as was clear to Marx.³² Unfortunately, the 'at a stroke' assumption also created confusion and technical error in Marx's discussion of movements in money balances held by the capitalist in the course of the turnover of capital.

3.2 *Marx's 'Mechanism of the Turnover'*

Marx's analysis of the formation of money hoards (reserves) as capital completes its turnovers is found mostly in Chapter 15 of the second volume of *Capital*. In order to avoid confusion (particularly in view of the discussion of turnover time above), it is important to bear in mind that Marx's analysis abstracted from the existence of fixed capital and surplus value. As will become clear below, this is only a simplifying assumption that is not critical to the validity (or not) of Marx's conclusions.

30 Although completion of any particular turnover by definition would coincide with completion of the traverse of its own C'–M' stage (i.e. the end of turnover time would necessarily coincide with the end of c_2 , the sales period).

31 Marx 1978, p. 203.

32 Ibid.

Since Marx left aside both fixed capital and surplus value, it followed immediately that the value of commodity output ‘can be taken as equal to the value of the fluid capital advanced for its production, i.e. the value of the wages and of the raw and ancillary materials consumed in its production’.³³ Thus, Marx’s ‘mechanism of the turnover’ was derived with reference to the simple reproduction (no reinvestment of profit) of fluid capital, i.e. of the sum of variable and circulating constant capital of an enterprise. The turnover of fluid capital depends critically on the simple fact that fluid capital, by definition, would make its entire contribution to the value of output in one traverse of production. Its turnover time would, thus, be determined by the material form taken by fluid capital in production, namely workers and raw and ancillary materials.

To be more specific, in the absence of credit, the capitalist has to advance fluid capital at the start of the circuit in order to employ workers and to purchase materials; the amount of fluid capital has to be sufficient for at least one traverse of production (in Marx’s first example in the previously quoted part of *Capital*, production time lasts nine weeks). However, workers are paid regularly and at fairly short intervals throughout the production period; raw and ancillary materials are also regularly replenished as they are consumed in the course of production (in *Capital*, Marx assumes a weekly outlay covering both wages and the costs of raw and ancillary materials).

Thus, while the capitalist commences the circuit by advancing a sum of fluid capital in money form that would be sufficient for at least one production period, its transformation into production inputs would be gradual and would last during the entire length of the production period. Consequently, a crucially important feature of the turnover of fluid capital is that the c – M stage of circulation and the stage of production would completely coincide, i.e. the first part of circulation time would run concurrently with production time.³⁴ Consequently, in the rest of the analysis we will ignore c_1 , since it would coincide with p ; by the same token, circulation time would now comprise only c_2 , and it would be simpler to use c to symbolise it.

As already noted above, Marx tended to assume that finished output entered and exited circulation ‘at a stroke’. Thus, finished output would be put on the market at the end of production time; it would seek sale for the duration of

33 Marx 1978, p. 334.

34 It is, in principle, possible for the first part of circulation time of fluid capital to start earlier than production time. For instance, in oil refining, crude oil may have to be shipped from afar before production could start. In general, however, the two lengths of time would tend to coincide.

circulation time (in Marx's first example, for three weeks); it would be sold for money 'at a stroke' at the end of circulation time; and finally, sales proceeds would be committed again to production:

Let the circulation time be three weeks. The total turnover period is then twelve weeks. After nine weeks have elapsed, the productive capital advanced is transformed into commodity capital, but it now has to spend three weeks in the circulation period. Thus the new cycle of production can begin again only at the start of the thirteenth week, and production is at a standstill for three weeks, or a quarter of the total circulation period.³⁵

For Marx, this process would necessarily lead to formation of money hoards because the circular movement of capital as a whole would have to be kept continuous, or, what amounts to the same thing, production would have to remain continuous. Specifically, to ensure continuity, production would have to be financed after the finished output would have been put on the market and until the sales proceeds would have accrued (i.e. for the duration of circulation time) and this would have hoarding implications for the money balances of the capitalist.

To examine the hoarding implications of continuous production, Marx used the technical device of disaggregating the circular flow of an individual capital into the combined movement of more than one smaller capitals. Thus, he assumed that, at the start of the first production period (which is also the start of the circuit, since production time and the first leg of circulation time would coincide), the fluid capital requisite for one length of production time would be advanced. He then further assumed that, at the start of the second production period (immediately following the first), a second advance of fresh fluid capital would be made to maintain production continuity. The same assumption was made for all subsequent production periods and until such time as the sales proceeds from the first advance would accrue, thus providing the capitalist with the wherewithal for reinvestment.

From Marx's formulation of the process it would follow immediately that both the total amount of fluid capital committed at the start of the circuit and the number of repeated advances until the accrual of the first sales proceeds would depend on the relative lengths of production and circulation time. According to Marx, money hoard formation would emerge in this connection because, when the abrupt accrual of sales proceeds actually took place, a

35 Marx 1978, p. 334.

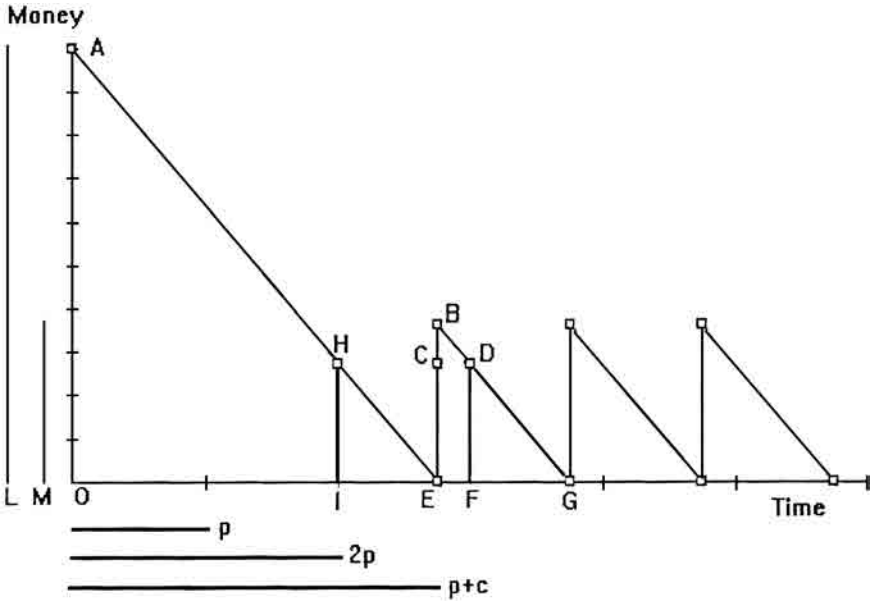


FIGURE 7.1 *Circulation time longer than production time*

particular length of production time would have already been underway for some time. Since the sales proceeds would be, by construction, sufficient for an entire length of production time, a part of the proceeds would appear to be superfluous for the needs of the production length that was already underway. For Marx, the temporarily superfluous part of the sales revenue would be released as potential money capital, a release that would be repeated with every subsequent accrual of sales revenue.

We can facilitate discussion of this issue by employing a simple formalisation of Marx’s analysis. Assume the simple reproduction (no reinvestment of profit) of fluid capital (variable plus circulating constant capital); assume also that entry into and exit from stage $c'-m'$ take place ‘at a stroke’; assume, finally, continuous time (Marx assumes discrete weekly periods), capital advanced of size κ , and continuous production.

Fig. 1 is a linear representation of the circuit of capital in value-time space. Production commences at the origin, coincides with stage $m-c$, and lasts time p (production time). Stage $c'-m'$ follows production, and lasts time c (circulation time). There is only one circulation time since, for fluid capital, time c_1 coincides with time p . The return of κ takes place at $p + c$ (BE in Fig. 1). For simplicity, the figure is drawn on the assumptions that, first, fluid capital is expended uniformly and continuously throughout p , and second, that $2p > c > p$.

The capitalist advances start-up capital, L , sufficient to maintain continuous production throughout $p + c$:

$$(1) \quad L = K(1 + c/p)$$

During the first turnover of K the capitalist holds average money balances $L/2$. Since production is continuous, the second turnover is completed at $2p + c$, the third at $3p + c$, and so on. The accruing sales revenue K is immediately committed to production until the next completion of turnover. After the first turnover, and for successive periods equal to production time, the average money balances held are $K/2$.

Marx disaggregates this process into the movement of more than one capital.³⁶ Thus, for Marx, at the start of the circuit, K would be advanced, followed by a second and a third capital advance, made at times p and $2p$ respectively. Given that $2p > c > p$, the first sales proceeds would accrue during the production time of the third capital advance. This inevitably led Marx to the conclusion that the third capital advance, made at $2p$, need not be as large as K ; in our diagram this advance would be equal to I_H . The balance necessary to complete the third production period would be made up at E by advancing CB out of the returning sales proceeds EB . Marx then argued that the rest of the sales proceeds (CE) would be released as potential money capital and would be held during time EF .³⁷

Marx called the presumed process of money capital release due to the interplay of production and circulation time, 'the mechanism of the turnover movement'.³⁸ It is clear from the text that he thought this 'mechanism' to be an important part of his analysis of money hoard creation in the circuit of capital.³⁹ From Marx's own presentation of the issue, furthermore, it would follow that no release of potential money capital would take place:

36 Marx 1978, p. 344, Table 1.

37 Marx 1978, p. 353. Marx's analytical expressions are not identical with the ones employed here. It is, furthermore, nearly impossible to extricate satisfactory quotes from Marx's tangled and largely incorrect formulations. However, quick reflection will suffice to establish the close correspondence of our analysis with that in *Capital*.

38 Marx 1978, p. 357.

39 Note that for Marx this would be a money hoard (or, more accurately, money that would be temporarily idle in the course of capital turnover), but it would also be released from the circuit. That would make it different from the precautionary hoards held by the capitalist, which would be committed to capital turnover even if they remained idle (and, therefore, they would be advanced at the start of the turnover). By the same token, Marx's released

(1) If the working period [i.e. production period] is equal to the circulation period, and the turnover period is thus divided into two equal sections; (2) if the circulation period is longer than the working period, but a simple multiple of it, so that 1 circulation period = n working periods, where n must be a whole number. In these cases, no part of capital successively advanced is set free.⁴⁰

In the same chapter, Marx further undertook many tangled, and largely irrelevant, calculations in order to ascertain the effect of changes in the relative lengths of production and circulation time on the size of the released money capital, as well as on the size of the start-up fluid capital.

Marx's analysis of the 'mechanism of the turnover' is fallacious, as could be shown even on his own terms. According to Marx, the successive advances of the first, second, and so on, capitals would occur at intervals equal to production time, and the sales revenue would be, by construction, sufficient for one length of production time. But then it follows immediately that since each accrual of the sales proceeds would occur 'at a stroke' after an interval equal to the production period, the whole of the sales revenue would be necessary for production to continue until the next accrual. To put it differently, since production is continuous, it would matter not at all whether the accrual occurred halfway through or at the start of a particular traverse of the production process. The whole of the sales revenue would be necessary to keep production continuous for a time equal to the length of production time. No part of the sales revenue would be 'released'. The relative lengths of circulation and production time are entirely immaterial to this result.

The formalisation employed above allows us to identify Marx's fallacy more clearly. The sales proceeds EB have to last for the whole of EG , equivalent to one traverse of production, regardless of whether or not a production run actually

money capital would be different from the money balances generally held by capitalists to finance production: the latter would be working balances, committed to the circuit and would certainly not be idle. The significance that Marx attached to the release of money capital probably derived from the notion that this phenomenon represented a regular 'freeing' of some of the working money balances, temporarily allowing the capitalist to exercise greater discretion over the use of the money that was initially committed to the circuit. Were this to be true, released money capital would be more akin to accumulated profits and depreciation funds than precautionary hoards. As is shown below, it is not true. There would be no release of working money balances as a result of the interplay of production and circulation times.

40 Marx 1978, p. 355.

started at E. There is no qualitative difference between, say, IH advanced for period IE and EB advanced for period EG. Marx's claim that money capital would be released is spurious, and arose purely because he disaggregated the movement of the entire advance into that of three capitals, the third one being naturally smaller than the first two. In reality, and given that sales proceeds accrue with periodicity p , all that could be said regarding money balances held to finance production is that their average size from one accrual to the next would be $\kappa/2$.

Further confirmation that there would be no release of money capital due to the interplay of production and circulation time would be obtained if (following Marx's own example) we reversed the assumption regarding the lengths of production and circulation times, and took $p > c$ (p and κ unchanged).

Since capital would now return faster from circulation, both the original advance, L' , and the money balances held to the end of the first turnover period would be smaller. After time E' , however, the process would become identical to that of Fig. 1 (since p and κ have not changed). Marx, however, identified a released money capital $C'E'$, inevitably different from CE in Fig. 1.⁴¹ Thus, as we have noted above, he concluded, first, that the size of the released money capital would depend on the relative lengths of c and p , and second, that if the return of κ coincided with the start of a production period (i.e. circulation time was an exact multiple of production time) there would be no release. Fig. 2 makes it clear that both of Marx's conclusions are incorrect: the average money balances, held as capital periodically returns, would be equal to $\kappa/2$, irrespective of the lengths of p and c .⁴²

Figures 1 and 2 also allow us to derive some interesting results regarding the money balances committed by the capitalist at the start of the circuit. Evidently, L is positively related to c , hence, a reduction in circulation time (as a result of improvements in the means of transport and communication, better flow of trade information, improved payments facilities, and so on) would

41 Marx 1978, p. 337.

42 The formalisation of the circuit of capital proposed here has apparent technical similarities with Baumol's well-known inventory theoretic analysis of the transactions demand for money, in which the 'rational individual' (or firm) has to make repeated payments of value c each (Baumol 1952). The underlying theoretical approach is quite different, however. Baumol's square root model aimed at determining the optimal size of the money balances held in order to effect transactions over a period of time. For Marx, by contrast, κ is given and the point of the analysis is to show that idle money (hoards) would necessarily arise in the course of turnover due to the interplay of the exogenously determined production and circulation times.

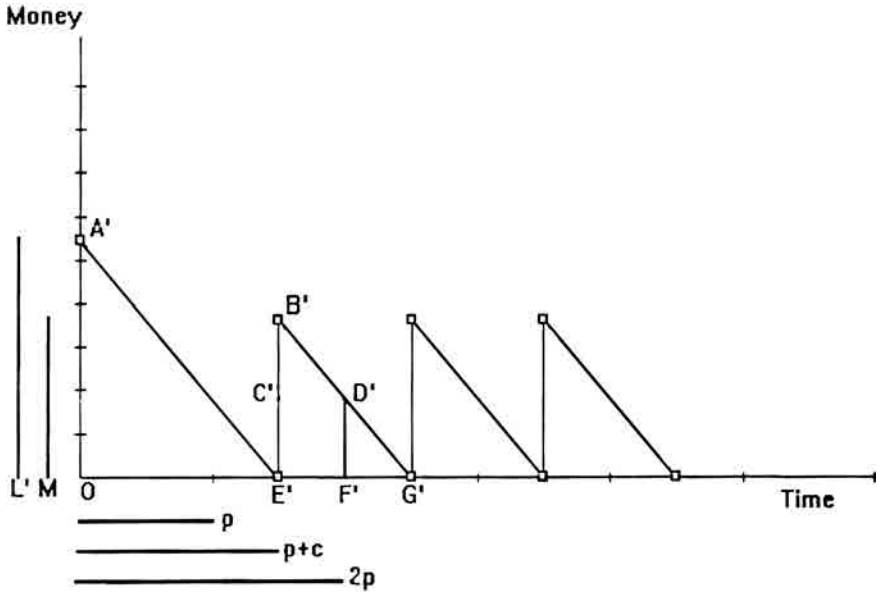


FIGURE 7.2 *Circulation time shorter than production time*

reduce the start-up advances of the capitalist and the money balances held during the first turnover. Marx correctly claimed that, under such conditions, a once-for-all release of money capital from the circuit would take place.⁴³ A developed banking system could intensify this process by improving the payments system and thus further reducing the circulation time of capital. Increases in circulation time would, of course, have the opposite effect on L .

On the other hand, since L is negatively related to p , contractions in production time (arising from technological change, improved stockpiling of raw materials, better training of workers, and so on) would increase the number of repetitions of production during a given circulation time. Consequently, shortening the production period would imply that larger initial advances have to be made, and the money balances held during the first turnover would increase. Lengthening the production period would have the opposite effect.

Thus, the most that could be shown by a technical analysis of the interplay of production and circulation times is that the turnover of fluid capital results in the constant re-emergence of money balances that would be directly

43 Marx 1978, pp. 357–9.

committed to production.⁴⁴ The relative lengths of production and circulation would affect the size of the start-up fluid capital, but not the size of the money balances that would accompany production after the first turnover. Moreover, these money balances would not be stagnant parts of the capital flow, and they would certainly not be released. Rather, they would be continuously expended in order to finance production.

Although Marx's 'mechanism of the turnover' is largely incorrect, the gist of his argument regarding the formation of money hoards due to the interplay of production and circulation time could be rescued by simply (and realistically) assuming that the length of circulation time is uncertain and that production outlays are not uniformly distributed during production time. Capitalists are confronted with variable and unpredictable flows of sales proceeds, the timing of which is inevitably different from the (scarcely less variable and unpredictable) outlays to purchase productive capital (including the periodic advance of wages). Furthermore, Marx's premise that capitalists are under competitive pressure to maintain the continuity of production is eminently reasonable.

Taken together, these factors constitute another source of precautionary reserves of means of payment, perhaps most appropriately called *turnover reserves*. The turnover reserve would allow capitalists to iron out disparities in the timing of the flows of receipts and expenditures, as well as sudden upsets and irregularities of these flows. The turnover reserve, however, would not be money released from the circuit but a reserve that must be present at the outset in order to ensure the continuity of production, and thus of the turnover of capital.

4 Hoard Formation and the Credit System

The analysis of money hoarding, as has already been indicated in the introduction to this chapter, plays an important role in Marx's monetary theory. The role of money hoarding in Marx's theory of credit, however, has been much less discussed in the literature. For Marx, the characteristic feature of the capitalist credit system is that it mobilises idle money generated in the course of capit-

44 Evidently, and trivially, the possibility exists that money balances might become temporarily surplus to the financing requirements of production, if, for instance, the flow of sales revenue and production outlays was highly irregular and 'lumpy'. However, no generalisation of this phenomenon is possible on the basis of the interplay of production and circulation times.

alist accumulation.⁴⁵ In doing so, the credit system transforms idle money into loanable money capital that earns interest, and directs it back to accumulation:

It is easy to understand the satisfaction evinced when the credit system concentrates all these potential capitals in the hands of banks, etc, makes them into disposable capital – ‘loanable capital’ – i.e. money capital, no longer passive and, as it were, a castle in the air, but active, usurious, proliferating capital.⁴⁶

Thus, the generation of idle money in the circuit of industrial capital would provide an objective foundation for the construction of a system of credit, as opposed to the more or less haphazard and unsystematic processes of money lending that is typical of pre-capitalist societies. Moreover, since it is a set of social mechanisms specifically aimed at creating loanable money capital out of idle money, a developed credit system would naturally spread its activities across the economy.

Active money balances, held by firms to facilitate buying of means of production and labour power, would also be concentrated by banks and become the money balances of the capitalist class as a whole. The banks could accomplish economies in the size of this money stock by rationalising additions and withdrawals, thus also transforming parts of it into loanable capital. Similarly, the developed credit system could also begin to generate loanable money capital out of the temporarily idle money revenue of workers, capitalists, and other social groups.⁴⁷

45 More accurately, there are two strands in Marx’s analysis of the foundations of the credit system, which are not mutually compatible (see Lapavitsas 1997). One posits loanable money capital as the property of a special subset of the capitalist class, the ‘monied’ capitalists; thus, the credit system is a set of social mechanisms regulating the advance and repayment of ‘monied’ capital, including its remuneration out of surplus value produced by industrial capital. The other starts with the money hoards of industrial capitalists, which the credit system mobilises and transforms into loanable money capital. In this view (adopted here), the credit system is primarily a set of social mechanisms that effects the reallocation of spare money and surplus value among industrial capitalists (see Itoh and Lapavitsas 1999, chs. 3, 4).

46 See Marx 1978, p. 569.

47 Note that, in this approach, money hoarding rather than saving would provide the foundation and wherewithal of loanable money capital. The point is important in several respects. Saving, i.e. the income of firms and workers that is not consumed, is obviously a broader concept than hoarding. The fact that saving takes a monetary form is important (since that imparts additional uncertainty to its transformation into commodities), but

In the presence of developed credit relations, the form of both money capital and money reserves would undergo a significant change. Marx's analysis of 'fictitious capital' was closely related to this point:

If we consider the way things happen in real life, we can say that the latent money capital that is stored up for later use consists of: (1) bank deposits; [(2)] government papers; [(3)] shares. [I]n all these cases, there is no storage of money, and what appears on the one hand as storage of money appears on the other as the continuous real expenditure of money.⁴⁸

In an interesting but ultimately undeveloped insight, Marx seemed also to imply that capitalist hoards would become accumulated claims on others, rather than durable concentrations of the universal equivalent: 'The banks' reserve funds, in countries of developed capitalist production, always express the average amount of money existing as a hoard, and a part of the hoard itself consists of paper, mere drafts on gold, which have no value of their own.'⁴⁹

Finally, a striking aspect of Marx's analysis of hoard formation is the absence of the rate of interest as a factor determining the process of hoarding. This is largely explained by the method of Marx's analysis, rising from simpler to more complex concepts. The hoard-forming tendencies identified at the level of the circuit of capital represent the structural foundations of the demand and supply of loanable capital, the price of the latter being the rate of interest. Far from requiring the concept of the rate of interest in order to undertake the analysis of these structural tendencies, the tendencies themselves ought to be analysed first in order to create the basis for a theory of the rate of interest.

saving also has a use value dimension: it is real output not consumed. Hoarding has no dimension other than the monetary one: it is money that has temporarily lain idle. Consequently, if hoarding provides the foundation of loanable capital and the credit system, it cannot be at all assumed that the operations of lending and borrowing equalise saving and investment. Clearly, the transfer of idle money into hands that could put it to use in accumulation would have implications for the transfer of resources among productive sectors, but that would be a process qualitatively different from the transfer of saved resources to investment. Moreover, the fact that the flows of loanable capital would be mediated by the credit system (with its own markets, traders, prices, and speculative activities) would not at all lead to equilibrium necessarily, but might actually contribute to disequilibrium between saving and investment. Finally, the rate of interest, although it is indeed the price of loanable money capital, is not the price that equates saving to investment.

48 See Marx 1978, p. 423; see also Marx 1981, pp. 595–601.

49 Marx 1981, p. 600.

To analyse the rate of interest one must first analyse the nature of loanable capital, but that would be an impossible task unless one had first analysed money hoarding. Naturally, at a less abstract level of analysis, the rate of interest would play a significant role in determining the hoarding decisions of individual capitalists. Even then, however, the underlying structural tendencies to hoard money would provide the broad parameters within which changes in the rate of interest could influence individual capitalist decisions.

Conclusion

Marx devoted considerable effort to analysing the tendency of capital value to become temporarily idle and thus form money hoards in the course of its circular flow. He associated the hoard-forming tendency with circulation, production, and the articulation of the two. Marx's analysis of money hoarding due to the articulation of production and circulation suffers from a technical error, but the gist of his argument remains valid, if uncertainty and unpredictability were assumed to characterise the movement of capital in the sphere of circulation.

Equally significantly, in Marx's work, hoards of money were not the result of a speculative, or any other, motive of the individual agent. Hoards resulted for reasons intrinsic to the structure of the circuit itself, and thus acquired an objective character independent of the choices of individual capitalists. At a further remove, capitalist money hoards would become loanable money capital and would be directed back to capitalist accumulation. The hoarding tendency would thus provide a foundation for the capitalist credit system.

PART 3

*The Origin of Money and
the Nature of Commodities*



Commodities and Gifts: Why Commodities Represent More than Market Relations*

1 Introduction: Commodities and Gifts, Market and Non-Market Exchange¹

Gift transactions and the moral aspects of reciprocity have long been the focus of theoretical interest in social science. Mauss's renowned essay on the gift has continually attracted heavyweight commentary, including from Levi-Strauss and Sahlins.² Polanyi and his school have made reciprocity one of the pillars of their analysis of non-market-based societies.³ Gouldner has found in reciprocity a universal 'moral norm' for all human societies.⁴ There have been entire theories of 'social exchange' resting on reciprocity.⁵ If Levi-Strauss is properly included in this field, there have even been theories of the origin of human society based on the reciprocal exchange of women.⁶

Nevertheless, since the early 1980s analytical interest in gift giving as opposed to commodity exchange has reached a higher level of intensity. The 'commodity' has come to stand for rationality (especially of the instrumental variety), individualism, a strict calculus of material gain and loss, impersonal relations, and the holding together of society through the invisible glue of the market. In contrast, the 'gift' stands for moral obligation, collective concerns,

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1 This chapter contains a critical examination of anthropological literature on gifts and commodities. Anthropologists would undoubtedly notice weaknesses due to lack of the requisite disciplinary training on my part. I should state in my defence that my sole aim in reviewing anthropological work has been to obtain insights that could facilitate analysis of capitalist commodity exchange. Thanks are due to Ben Fine, Makoto Itoh, and Danny Miller for helpful comments on various drafts. Michiaki Obata made penetrating remarks at a seminar presentation at the University of Tokyo. All errors are my responsibility.

2 See Mauss 1925, Levi-Strauss 1950, and Sahlins 1972.

3 See Polanyi et al. 1957.

4 See Gouldner 1960.

5 See Homans 1958, and Blau 1964.

6 See Levi-Strauss 1949.

power, personal relations that survive and continue after exchange, imprecise and often non-material rewards, the holding together of society through visible and open relations based on volition, rank and the like.⁷

Thus, 'commodity versus gift' has often come to be employed as metaphor for 'market versus non-market relations', as is shown in the next section. In this light, the theoretical contrast between commodity and gift has a direct bearing on the analysis of advanced capitalism, especially since the demarcation line between market and non-market relations is blurred in several fields of economic activity, including the family, education and health provision. The demarcation line is also blurred in developing countries, given that 'development' has been traditionally associated with production of marketable output at the expense of output distributed through non-market mechanisms.

Is capitalist economic activity a coldly 'rational' endeavour that leaves no room for reciprocal association, social obligation and mutually conditioned power among economic agents? Does capitalist development imply the destruction of non-market relations, the shrinking of the realm of custom, trust and moral obligation? Is the world of the gift irrelevant to capitalist calculation of returns? Are commodity transactions alien to non-market concerns and relations?

This chapter reconsiders the binary opposition of 'commodity versus gift' from the standpoint of Marxist political economy. It shows that non-market relations are an intrinsic part of capitalist commodity exchange, and of the economic activities generally associated with commodities. Non-market concerns matter to commodity exchange partly because commodity markets are underpinned and surrounded by social relations.

To a certain extent, this point has already been established in sociology as, for instance, in Granovetter's work on 'embeddedness' and 'networks'.⁸ However, from a Marxist standpoint, the salient social relations that underpin capitalist exchange are those of class. Non-market relations are represented in economic interactions among capitalist commodity owners in two fundamental ways, both of which reflect underlying class relations.

First, non-market relations of trust, custom and power arise among capitalist commodity traders because of the role played by use value in commodity transactions. The literature on 'commodity versus gift' focuses overwhelmingly

7 Hyde, for instance, associates commodity exchange with 'logos' (reason) and gift exchange with 'eros' (attraction) (Hyde 1983).

8 See Granovetter 1990.

on exchangeability as the typical economic characteristic of commodities, ignoring use value. But use value is also a fundamental economic aspect of commodities. When its place in market transactions is considered analytically, it becomes clear that use value gives rise to non-market relations between buyer and seller.

By the same token, use value is a source of trust, commitment and power among capitalist enterprises that regularly engage in commercial give-and-take. Non-market relations between capitalist enterprises are particularly important because they underpin credit operations and sustain profit-making activities; they are one of the foundations of the institutions, markets and instruments of the credit system. At the same time, the relations of trust and power among enterprises that participate in credit operations also revolve around securing money returns, thus reflecting underlying capitalist class relations.

Second, social (non-market) relations of class among commodity owners are represented in the most prominent 'economic' aspect of the commodity – its value. Commodity value (including money price) is not exclusively a phenomenon of market interaction, whose determinants are unrelated to moral and customary influences. Rather, commodity value is a social substance (abstract human labour) that takes the form of 'exchange value' (a quantitative ratio, or relative price) in the course of commodity exchange. For commodities to possess the substance of value there must be capitalist property relations over the means of production, autonomy and competition among producers, capitalist authority at the workplace and relative indifference of workers to job performed.

Moreover, under capitalist social conditions, the form of value (the quantitative ratios of exchange value) is determined by the substance of value. In non-capitalist societies, on the other hand, the substance of value is largely absent, and the form of value heavily reflects customary and moral social practices. However, even in capitalist societies there are activities that possess the form of value (quantitative ratios, prices, monetary returns) despite being unrelated to the substance of value, for instance, in insurance, real estate, or financial services. The exchange values and prices generated by these capitalist economic activities depend on moral and customary (i.e. non-market) factors.

It is misleading to consider capitalist markets as terrain for strictly 'rational' and self-centered interactions among participants. On the contrary, fresh non-market relations continually arise among traders, existing ones are marshalled and placed at the service of economic activity, and broad social relations provide the framework within which commodity exchange takes place. The

commodity as economic phenomenon does not stand exclusively for market give-and-take, but also integrally represents non-market relations through both its value and use value. The putative contrast with the gift is misplaced in this regard.

Moreover, non-market relations of trust, custom and power among capitalist commodity owners are also stamped with the aura of money-making, strict comparison of returns, and narrow calculation of means and ends. The core class relations of capitalist society have a bearing on non-market relations among commodity owners. Relations of trust, in particular, are systematically mobilised through the institutional structures of the credit system, focused closely on profit-making, and deployed to sustain capitalist accumulation. Capital as a set of exploitative class relations and economic mechanisms articulating production and exchange provides a framework of motives, aims and social practices within which the interaction of market and non-market relations in the capitalist economy may be analysed.

The chapter is organised as follows. Section 2 shows that the literature on 'commodity versus gift' focuses on commodity exchangeability, at the cost of ignoring the use value of commodities. Section 3 puts forth an original analysis of the role of use value in commodity exchange and demonstrates that non-market relations are generated between buyer and seller as transactions occur repeatedly. It is also shown that use value is a source of relations of trust and power among capitalist enterprises, which provide a foundation for credit practices. Section 4 turns to exchange value and considers the influence of moral and customary factors on exchange value in capitalist and non-capitalist societies. The final section summarises and concludes the chapter.

2 Commodity and Gift Exchangeability

The work of Gregory has been influential in the recent debate on 'commodities versus gifts'.⁹ Gregory's elegant formulation of the distinction between commodities and gifts goes as follows:

Marx was able to develop a very important proposition: that commodity exchange is an exchange of alienable things between transactors who are in a state of reciprocal independence ... The corollary of this is that non-

⁹ See Gregory 1980, 1982, and 1997.

commodity (gift) exchange is an exchange of inalienable things between transactors who are in a state of reciprocal dependence. This proposition is only implicit in Marx's analysis but it is ... a precise definition of gift exchange.¹⁰

Gregory has used this distinction as foundation for a theory of 'gift-based' societies, characterised by kinship-based groups (clans), as opposed to 'commodity-based' societies, characterised by social classes.¹¹ Analytical interest in the literature has subsequently concentrated on demonstrating more fully the impact of non-market factors (moral, customary, kinship, religious, and so on) on gift exchange, while also discussing the social relations expressed in the latter. Thus, Gregory's distinction has been (critically) deployed in analysing the different roles of men and women in the process of production and exchange.¹² It has also been used as analytical benchmark in an attempt to distinguish among things that are exchanged and things that are not exchangeable at all.¹³

To be sure, the neatness of Gregory's distinction has also been subjected to sustained critique. Parry, for instance, has claimed that certain gifts are alienable in traditional Indian society.¹⁴ Appadurai has found the distinction 'overstated', preferring to focus on a 'cultural perspective' that stresses the universality of the commodity form.¹⁵ Scepticism has also been expressed on whether the 'gift' is an adequate notion for the characterisation of an entire economy.¹⁶

Still others have rejected the notion of a sharp dichotomy between commodity and gift, preferring to see the two as poles in a 'spectrum of give-and-take' that extends from transactions 'dictated by a sense of obligation and commitment' (the gift pole) to transactions 'merely or principally dictated by a desire to obtain certain objects by means of exchange' (the commodity pole).¹⁷ Accord-

10 Gregory 1982, p. 12.

11 Though, in later work he has argued that his aim was to analyse the 'efflorescence' of gift exchange in a world dominated by commodities (see Gregory 1997, pp. 47–8).

12 See Strathern 1988.

13 See Weiner 1992.

14 See Parry 1986; see also Parry and Bloch 1989; Gregory has, in turn, claimed that Parry overemphasises the importance of Brahminical ideology in the context of the 'Indian gift' (Gregory 1997, ch. 2).

15 See Appadurai 1986.

16 See Thomas 1991.

17 See Valeri 1994, p. 18.

ing to this view, ascertaining the precise point on the spectrum at which particular transactions lie is much less important than specifying the nature of the relationship between transacting parties.

Nonetheless, what matters most for our purposes is that Gregory's distinction between commodities and gifts (and the social and personal relations between the parties in related transactions) evidently rests on the characteristic features of the exchangeability of commodities in contrast to that of gifts. In subsequent literature there has been no quarrel with this aspect of Gregory's distinction. Rather, its implicit acceptance has contributed to the emergence of the previously mentioned notion of a 'spectrum' or 'continuum' of exchange transactions, with gift at one end and commodity at the other, which is accepted by those who are critical of Gregory's distinction, as well as those who are sympathetic to it.¹⁸

Significantly, close analytical focus on the exchangeability of commodity and gift is not limited to recent literature but goes back to the originators of this debate, that is, to Malinowski and Mauss. In his classic text on the gift, Mauss was most heavily exercised by the obligation to reciprocate gifts in primitive society, while also seeking an explanation for the obligation to give and the obligation to receive gifts.¹⁹ His answer, couched in terms of the 'spirit' of the gifted object – the Maori *hau* – that is attached to the person of the giver, has been very controversial.²⁰

Nevertheless, it is indisputable that the power of Mauss's great essay derives from his erudite discussion of the rules of 'legality and self-interest' that make for gift reciprocation. For Mauss, these rules show that even very simple communities are far removed from a 'state of nature', and that the obligation to reciprocate has a 'contractual' aspect. Thus, Mauss was primarily concerned with the determinants of the gift's exchangeability (as property of the gift, even if not as quantitative proportion), and sought them in the moral aspects of the gift relationship and in the social ties that bind the transactors.

18 See, respectively, Valeri 1994, and Carrier 1994a, p. 361; see also Carrier 1991, and 1995. Note that Gregory has vigorously rejected 'continuum' arguments in favour of binary or polar oppositions (1997, ch. 2). The analytical stance adopted in this article is, in principle, close to that of Gregory, but the binary opposition he has suggested (commodity–gift) cannot adequately serve the purposes for which he intends it. This is because the commodity contains the more fundamental binary opposition between use value and exchange value, which Gregory ignores.

19 See Mauss 1925.

20 Firth showed very early on that Mauss misinterpreted the Maori text (Firth 1929), and Radcliffe-Brown has noted the mystical aspect of his argument (Radcliffe-Brown 1950).

On the other hand, Malinowski considered it an impossible task to draw a sharp line between gift-type and commodity-type transactions.²¹ Exchange transactions are a continuum, with pure (i.e., non-reciprocated) gift on one end and pure commodity on the other. In his essay on the gift, Mauss, as is well-known, rejected Malinowski's notion of the pure gift (*mapula*). Whatever other reasons might have caused this rejection, it is undeniable that the existence of a 'pure gift' would directly contradict Mauss's own emphasis on the 'contractual' obligation to reciprocate, thus effectively denying the existence of the gift's exchangeability.

It is significant that Malinowski eventually accepted Mauss's strictures and postulated the principle of 'reciprocity' as the foundation for analysis of all early societies.²² In effect he grasped that the notion of 'pure gift' would be analytically incompatible with his exclusive focus on exchangeability as the distinguishing feature of gifts and commodities.

Strong concern with exchangeability was also evident in Malinowski's methodical listing of the series of gift exchanges incumbent upon marriage parties in the Trobriands.²³ The questions that attracted his attention were primarily related to the exchangeability of the gift: Does it exist (i.e. is the gift reciprocated)? What forms does it take? How is it different from transaction to transaction? What are its moral and customary constituents? Furthermore, in dealing with exchangeability, Malinowski took great pleasure in showing that quantitative ratios among products exchanged in these communities were neither stable nor transitive.²⁴ Other anthropologists have also made the same claim in subsequent work.²⁵

Preoccupation with exchangeability in the current and in the older literature on gifts and commodities rests on the largely unspoken assumption that the property of exchangeability fully captures the character of the commodity. Commodity exchangeability appears intrinsic, complete, and precise: *quid pro quo*.²⁶ If this view was accepted, gifts could subsequently be located analytically

21 See Malinowski 1922, ch. 6; also 1935, pt. 1.

22 See Malinowski 1926. His discussion of 'reciprocity' is based on naïve psychological foundations, and aims at disproving the notion of 'primitive communism'. He was not unduly troubled by considering the *quid pro quo* of capitalist markets to be a universal principle of human interaction.

23 See Malinowski 1929, ch. 3.

24 See Malinowski 1935, p. 45.

25 See, for instance, Firth 1959.

26 'Appears' is the operative word here. Commodity exchangeability is none of these things immediately and automatically, but must become them, and must continue to do so

according as the properties of different gift transactions approximated the features of exchangeability that were presumably exhibited by commodity transactions.

Thus, gifts are not inherently exchangeable; they are not given as things that will necessarily elicit the return of another. Their ability to do so is circumscribed by a host of non-economic factors, moral, religious and customary. Not least, even when they bring a return gift, there is no precise quantitative equivalence between give and return. Gifts, moreover, penetrate into areas of social life that are not immediately and obviously touched by the market: to give in order to establish a relationship and in expectation of a reciprocal gesture is fundamental to interpersonal relations, to family relations, to friendship, to relations at work, to political and social intercourse. By this token, gift-giving appears to possess a transhistorical aspect that captures something of the deeper reality of human beings.²⁷

In this light, and given that commodity exchangeability (especially in the form of exchange value and money price) is the province *par excellence* of economics, the appeal of the gift as vehicle for analysis of the non-market aspects of social life becomes apparent. The gift could act as terrain and metaphor for the analysis of social relations that differed in kind from the cash nexus at the heart of markets. Gifts appear conducive to analysis of social obligation, trust, hierarchy, prestige, solidarity, and so on, in ways that are not available when analytical focus is on commodities and markets.

Even when new analytical directions are sought in this field, for instance, attempting to define things that are non-exchangeable, the underlying approach remains the same.²⁸ It is implicitly assumed that the character of commodities derives from their complete exchangeability, while the character of gifts derives from an exchangeability that is less complete than that of commodities. Thus, the character of things-non-exchangeable (for instance, religious *sacra* or the crown jewels) appears to derive from the complete absence of exchangeability.

For Gregory, who did in later work adopt the notion of 'goods', i.e. things-non-exchangeable, 'a good is a priceless non-commodity whose value as a good is to be explained with reference to historically specific relations of consanguin-

even in developed capitalist conditions. Seeking sale, for one thing, is always fraught with uncertainty.

27 In this vein, analytical analogs have been sought between gift-giving and language. For a well-researched attempt, see Caplow 1982, and 1984.

28 See Weiner 1985, and 1992.

ity'.²⁹ For Godelier, things-non-exchangeable are even seen as the true foundation of society – they are fixed points of reference, which provide meaning and continuity to social intercourse.³⁰ Yet, it is clear that 'things-non-exchangeable' is a derivative concept, defined (negatively) in terms of the exchange value of the commodity.

The literature's extraordinary focus on exchangeability is itself problematic. The commodity as economic phenomenon is inadequately understood when it is analysed merely from the perspective of its exchangeability. The commodity is also inherently a useful product, and its usefulness (more accurately, its use value) interacts with its exchange value in the course of exchange transactions. Formal analysis of commodity transactions is incomplete when it ignores use value. For exchange of commodities to take place at all, use value must exist for each participant in the product of the other. If use value were not present, or rather, if it were not precisely defined and functional for each party in the other's commodity, there would be no transaction. For commodity transactions to have any content at all, moreover, the use value of one party's commodity must be different from that of the other.

However, when use value is explicitly considered as an aspect of commodity transactions, it becomes apparent that commodities continually generate non-market relations. In capitalist circulation these include relations of trust, custom and power, which are mobilised to sustain capitalist accumulation. The following section demonstrates this claim by analysing the role of use value in commodity exchange, comparing it to that of usefulness in gift transactions, and showing its implications for credit relations among capitalist enterprises.

3 Use Value in Commodity Exchange, and Usefulness in Gift Exchange

Use value is a source of non-market relations between buyer and seller. The point of departure for analysis of these relations is that the commodity has no use value for the seller. Whether it counts as a use value for society at large, as well as how its use value will be deployed after purchase, are matters that the seller must deal with prior to exchange on the basis of information and expectations about the future. Sellers, moreover, cannot know in advance

29 See Gregory 1997, p. 71.

30 Godelier 1999.

whether their anticipations would hold true for a particular buyer.³¹ The most that the seller can do is to ensure that sufficient of the postulated use value would have been imparted to the commodity prior to exchange.

For the buyer, in contrast, the use value of the commodity must have a precise character deriving from the private use to which it will be put after purchase, be that consumption or production. Whether the required use value would be found in the commodity actually bought would depend on the properties of usefulness that would have been imparted to the commodity by the seller in expectation of sale, and on the accuracy of the buyer's judgement at the time of purchase. None of these conditions could be assumed perfect (other than as an analytical assumption for particular purposes). If use value did not fully meet requirements, if it had superfluous aspects, if it needed to be calibrated more accurately for a particular buyer, then non-market relations would emerge between sellers and buyers that would involve power, trust, moral obligation, custom and hierarchical ranking.

Such non-market relations are apparent between small retailers and consumers, and they are the source of various folkloric types in both non-capitalist and capitalist societies (the trusted baker, the garrulous barber, the friendly butcher, the needy widow, and the like). They evidently hinge on the need precisely to specify and guarantee the use value of the products concerned.³²

On the other hand, if large merchants' capital came to dominate the circulation of commodities (supermarkets, department stores, and so on), there would be standardisation of quality, homogenisation of packing, availability of several ranges of the same product, and display of a great variety of goods in large stores. Consequently, both the use value imparted to the product and its perception by the buyer would be drastically affected. In short, the emergence of advanced capitalist relations in the circulation of commodities would directly influence the generation of non-market relations among buyers and sellers. In this vein, Carrier has shown that advanced capitalism implies the rise of more impersonal retail trade, but is unable fully to extinguish the non-market relations that are inevitably attendant on commodity circulation.³³

31 Custom-made commodities confirm rather than negate this statement: use value is stipulated in advance by the buyer, relieving the seller of the need to arrive at a forecast.

32 They also arise out of the simple fact of the repetition of particular transactions, i.e. the regular purchase of a good or service from a particular outlet leading to habit and a sense of moral obligation among the parties. Repetition is also important in the emergence of non-market relations in transactions among capitalist enterprises. The analysis of its significance, however, seems more suitable to psychology than to economics.

33 See Carrier 1994a, 1994b.

These conclusions hold for commodities traded in the markets for final consumption, whether these are non-capitalist or capitalist. However, non-market relations hinging on use value also emerge in transactions specifically among capitalist enterprises. These are important for the following two reasons. First, because they show clearly that capitalist circulation creates a fresh terrain for relations of trust, moral obligation and commitment. Second, because the economic significance that these relations have for capitalist enterprises leads to their systematic marshalling through institutional economic forms, above all, through the credit system.

To be more specific, in any line of business, capitalist enterprises are connected to each other in chains of productive and trading activities that spring from the technical and physical characteristics of their products, and which create relations of seller and buyer. As producers, for instance, cotton goods makers are connected with cotton cloth makers, who are connected to cotton spinners, who are connected to raw cotton merchants, and so on.

The division of labour within a particular branch of economic activity is based on the characteristics, the requirements, and the specification of the use value of the product in question. The need to impart requisite use value to the product, to judge it accurately and to guarantee that it will remain functional entails the rise of non-market relations of trust, moral obligation, and reputation among enterprises. At the simplest level, buyers come to expect a certain quality of product and service from their sellers, while sellers expect a certain commitment from their buyers. The importance of such relations among capitalist enterprises is immediately apparent in the practices of credit that spontaneously emerge in capitalist markets.

Trade credit (the practice of buying commodities now and paying for them later, which should be distinguished from the practice of money lending) thoroughly permeates capitalist commercial activity.³⁴ The normal commercial operation of capitalist enterprises involves selling output and procuring inputs not against cash but against promises to pay at a time in the future. Money does not mediate these transactions but simply settles balances when credits are due. Thus, trade credit relations rely on a complex institutional and legal framework of guarantees, payment practices and clearing.

Even more fundamentally, however, trade credit relies on non-market relations of trust, reputation and commitment among enterprises, and is unlikely to be extended in their absence. The advance of trade credit might also sig-

34 For more on the qualitative difference between trade credit and money-based (banking) credit, see Itoh and Lapavistas 1999, ch. 4.

nify (and sustain) disparities of power among enterprises. In short, trade credit tends to emerge among capitalist enterprises that are already connected in chains of activities which result from the use value of products and entail frequent buying and selling among participants. Without non-market relations among enterprises, the practice of trade credit and its instruments, markets and institutions would be largely impossible.

On the other hand, once the mechanisms of trade credit were in place (as part of the credit system) the nature of trust, reputation and commitment among transacting parties in a capitalist economy would be profoundly affected. Generalised access to credit and the permeation of economic activity by credit relations would imply that all non-market relations associated with exchange would acquire a monetary aspect. Whatever other characteristics they might have, non-market relations emerging in capitalist circulation would have a narrow monetary dimension that would translate into interest foregone, implicit interest rate differentials, debt duration and rolling over of credits.

In sum, the relations of trust that underpin capitalist credit pivot exclusively on the repayment of (money) value according to terms agreed. Hence trust among capitalists is noxious and likely to give way to outright fraud. Extensive institutional mechanisms are necessary to police the edifice of promise and counter-promise that comprises the capitalist credit system. Neoclassical theory captures the inherently insidious aspect of capitalist trust through the concept of 'moral hazard', that is, renegeing on promises made, or defrauding credit counterparties when it comes to making payments.

Consider now the place of usefulness in gift transactions. For the giver of the gift, the gifted thing might or might not be useful, without any appreciable qualitative effects on the act of gift-giving. For the recipient, on the other hand, the perception of the usefulness of the gift matters only insofar as it affects the gift-giver's assessment of the appropriateness of the gift. It is entirely up to the giver to ascertain the right degree of usefulness of the gift for the recipient, while also deciding how appropriately this usefulness would mesh with the symbolic, sentimental, and moral aspects of the gift-giving transaction.

The contrast with the commodity is sharp. For if the buyer perceived that use value did not exist, the commodity transaction would not take place at all. Indeed, for the gift, usefulness might derive exclusively from the act of giving itself, as, for instance, from the prestige and social standing of the giver or past holders of the gift. Unlike the commodity there is no imperative for the gift-giver to impart usefulness to the gift.

Indeed, for the gift-giver, assessing the appropriate usefulness of a gift is a perilous and deeply uncertain undertaking. A thing of negligible usefulness

is as likely to offend as to gratify the recipient. An eminently useful thing could produce a very different effect on the recipient according as the latter's circumstances changed. A gifted thing that is typically used by 'the wrong sort of person' (in terms of social standing) is also likely to cause offense, as is a thing typically used by the 'wrong' age group.³⁵ Examples of this kind could be easily replicated, thus reinforcing the main point: usefulness is neither a fundamental nor a necessary aspect of the gift, though it cannot be extricated from the gift's symbolic and other aspects. While the commodity must be an intensely useful thing or activity, the gift might or might not be so. The precarious presence of usefulness in the gift is a source of uncertainty and danger among the parties to a gift transaction.

Classical anthropology offers abundant evidence in support of this claim. In the marriage gift-exchanges in the Trobriands discussed by Malinowski, essentially similar things frequently changed hands, but in different quantities.³⁶ This meant, above all, raw and cooked food that was not significantly different in kind between the exchanging parties. Indeed, much the same food already existed in the parties' possession.

It is, however, easiest to see this point in connection with the great gift exchange systems, *kula* and *potlatch*. In *kula*, the precious items exchanged were not sought for their usefulness, indeed they seemed to be very rarely used for personal decoration, which might have been their original use.³⁷ If they had a notable usefulness, that derived exclusively from the system of exchange itself and had no meaning outside it – typically to confer kudos and prestige upon their holders according as other powerful and important men had held the objects in the past. Similarly, in *potlatch* exchanges discussed by Mauss, the items used were also clearly specified, such as copper ingots and elaborately woven blankets, but the participants accrued kudos and prestige primarily from the process of exchange itself.³⁸ Indeed, so secondary was the original usefulness of these items that the process could sometimes take the form of their ceremonial destruction, frequently discussed for its psychological, moral, and other implications.

35 See Carrier 1994b.

36 See Malinowski 1929, ch. 3.

37 Malinowski had an ill-disguised contempt for the aesthetic qualities of *kula* items and appeared to think that they had no usefulness at all (1922, ch. 4). However, the fact that the original use to which a thing is put has become submerged under some other does not mean that it has disappeared. Usefulness is necessarily built into a thing in the process of its production. A ceremonial ax is still an ax even though it might not be used to cut wood.

38 See Mauss 1925.

It should be stressed that usefulness is far from irrelevant to the gift. Return gifts, for instance, might be thoroughly checked for their qualities as goods, and sometimes might be accepted grumpily and with suspicion. But while usefulness (more precisely, use value) is an indispensable aspect of the commodity, it would not be so for the gift. The indispensability of use value to the commodity is also a fundamental reason for the emergence of a broad range of non-market relations of trust, reputation, custom and power among commodity owners. In this light, commodity exchange is the terrain for, and the source of, non-market relations that would pivot on commodities as useful things. These relations would be an inherent part of market activities and could not be separated from pure buying and selling (other than by assumption for purposes of theoretical analysis). Moreover, non-market relations of trust, reputation and commitment would be systematically marshalled in capitalist markets to support trade credit practices and to sustain capitalist accumulation.

Non-market relations based on use value, far from being extraneous to market practices, would actually have direct economic significance in the capitalist economy. However, relations of trust and commitment among capitalist enterprises, especially when mobilised by the credit system, would focus narrowly on money-making, and would be prone to fraud and deception. In this respect too, relations of trust, reputation and commitment among commodity owners are different from those between gift-givers and recipients. The commodity represents non-market relations, but it does so in ways that are not open to the gift.

Surprising as it might sound, a similar conclusion is also reached in the following section which considers commodity value, and in particular exchange value (quantitative ratios or relative prices among commodities). The contrast between commodities and gifts with reference to market and non-market relations will then be seen in a fuller light.

4 Commodity Value, Capital, and the Form of Value

It is incontestable that a particular type of reciprocity characterises commodities: they are brought to market as exchangeable things and they bring back a quantitatively precise equivalent. However, for full commodity reciprocity to prevail, certain underlying social conditions are necessary, namely capitalist conditions.

In capitalist society, commodity reciprocity is sustained, on the one hand, by the institutional framework of markets (consumers' associations, producers' bodies, best practice agreements, and so on), and, on the other, by the

combined forces of the law of contract and the law of tort. At a deeper level, capitalist commodity reciprocity rests on an extremely detailed social division of labour, and on capitalist property rights over productive resources. Thus, it cannot be immediately assumed that what holds for the reciprocity of capitalist commodities also holds for commodities in different social settings. This point can be established by briefly considering the social underpinnings of the 'market', i.e. of generalised commodity exchange.

The various forms taken by generalised commodity exchange (prices, exchange ratios, and so on) are apparent and have been widely analysed by social scientists. If for a moment we disregard those particular forms, generalised commodity exchange emerges simply as the exchange of matter with different useful properties (products) across society. It is obvious that such an exchange of matter must necessarily take place in all societies that are based on a developed division of labour, if these are to reproduce themselves socially and economically. But it is equally obvious that the exchange of matter need not take place through generalised commodity exchange.

History and anthropology provide ample evidence of the diversity of social and institutional arrangements under which useful products have actually been exchanged across society. Commodity exchange is typically one of those, found in many different societies and coexisting with disparate social structures and relations. Nevertheless, in non-capitalist societies, market mechanisms play a secondary role in the distribution and exchange of the aggregate social product compared to non-market mechanisms that include kinship, hierarchy, customary rights and privilege.³⁹ Generalised commodity exchange becomes the primary form of product exchange only in specifically capitalist societies because these are largely characterised by the following two social conditions.

First, capitalist producers are independent of (and in competition with) each other, as well as appropriating products privately. These terms are necessary to explain why the bulk of the output of capitalist society would be offered for sale, rather than being consumed directly by its producers, or passed onto others along kinship, customary or hierarchical lines. But they are not sufficient.

39 The concepts proposed by Polanyi et al., including 'redistribution', 'reciprocity' and 'exchange', also capture the different economic and social arrangements through which use values find their final destination in society (Polanyi et al. 1957). They have posited those as methods of integration of society, i.e. as mechanisms for securing social coherence. For a full examination of social integration, however, it is more important to deploy the concept of reproduction (social and economic), which possesses greater analytical potential.

The second condition that is required is the existence of a labour market. Capitalist producers must have access to flexible and disciplined labour power that could be freely employed, if they are flexibly and rapidly to shift their activities among different products and areas (which is of course necessary, if the bulk of social output is to be produced for the market). In Marxist terminology, a working class must be present: a class that neither owns nor controls the means of production and earns its living mainly through sale of the capacity to work. Moreover, if such a social class were present, extensive markets would have to exist for foodstuffs, clothing, housing, and so on, that is, for goods necessary for its reproduction.

There is no doubt that both of these conditions could be found in partial, or elementary, form in non-capitalist societies. However, they would be fully present only in an industrial capitalist society. The implication for our purposes is clear: the capitalist mode of production inevitably entails generalised commodity exchange, but commodity exchange is not capitalism.

Commodities produced and exchanged under capitalist class relations possess more fully developed exchangeability (exchange value) than other commodities. This holds, above all, because capitalist relations assign value to commodities as social substance (abstract human labour) and not only as form (relative prices and quantitative ratios). For capitalist commodities, the substance of value provides regularity and transitivity to the form of value. In the absence of value substance, the form of value would be heavily dependent on customary, moral, hierarchical and other non-market (and even non-economic) influences.

By this token, the exchange value of capitalist economic activities which have the form of value but do not involve production of commodities (for instance, the operations in financial markets or real estate) would strongly represent non-market and not merely market relations. The same would hold for the exchange value of non-capitalist commodities, as is shown below.

Commodities always exhibit a determinate quantitative equivalence with one another, in contrast to gifts, for which there is none, other than by chance. Yet, the prevalence of particular exchange ratios among commodities is a very complex process. For one thing, if the exchange of commodities occurred haphazardly rather than systematically, exchange ratios would be highly changeable and arbitrary. These changeable exchange ratios would correspond to what Marx called the 'simple, isolated, or accidental' form of value, i.e. to shifting expressions of the form, x of $A = y$ of B , which would not be consistently transitive among commodities.⁴⁰

40 See Marx 1976b, p. 139.

Greater regularity of exchange would bring less arbitrariness and more transitivity to quantitative ratios among commodities. The form of value would develop correspondingly. For Marx, the 'simple form' of value would become the 'expanded form' (i.e. x of $A = y$ of B or $= z$ of C or $= w$ of D or $= \dots$), which would become the 'general form' (i.e. y of B , z of C , w of D , $\dots = x$ of A) eventually to give rise to the 'money form' of value.⁴¹ The 'money form' would be similar to the 'general form' except that commodity A would have become the money commodity. When the 'money form' of value would have emerged fully, exchange would have reached such regularity that unstable exchange ratios would have become transitive money prices.

What matters for our purposes is to specify the social relations and the mechanisms that would assign regularity and transitivity to quantitative ratios among commodities as the 'money form' would be reached. In his mature analysis, Marx argued that quantitative ratios among capitalist commodities are regular and transitive because such commodities are qualitatively equivalent with each other.⁴² Capitalist commodities possess a common substance of value (abstract human labour) that is created in the course of their production. To specify the substance of value in theory, Marx proposed the distinction between concrete and abstract labour.⁴³ The former is specific to person, time, place and skill, and produces the commodity's use value. The latter is general, featureless and homogeneous and provides the substance of the commodity's value.⁴⁴

The social conditions under which abstract labour would become a social reality are the same as those that would give rise to generalised commodity exchange, namely capitalist conditions. When producers are autonomous and compete with each other, and workers have no property rights over resources and output, as well as moving freely between jobs, the various concrete labours behind commodities would be in practice commensurated with each other. Abstract labour as the substance of value would be a socially and historically specific phenomenon, established as social norm through the process of market competition. This would happen fully only under conditions of industrial capitalism.

41 Marx 1976b, pp. 154–63.

42 See Marx 1976b, ch. 1.

43 Marx 1976b, pp. 131–7.

44 It is worth stressing that concrete labour offers little insight into the social relations that emerge among those who undertake it. In itself, concrete labour is a set of natural and physiological processes. This stands in sharp contrast with our earlier result, namely that usefulness and its deployment are socially determined. This issue is more fully discussed in Fine and Lapavistas 2000.

If capitalist commodities contained variable amounts of abstract labour, it would be trivial that they would also exhibit non-arbitrary and transitive prices (quantitative ratios).⁴⁵ However, the close correspondence between the substance and the form of value under capitalist conditions is not simply based on theoretical definitions. On the contrary, it rests on the existence of economic mechanisms through which the value content of commodities imposes limits upon the variation of relative prices of commodities (their quantitative equivalence).

If, for instance, the price of a commodity were systematically above what its value content would justify relative to others (i.e. its exchange ratio with others were above what it ought to have been), capital would move into the industry to take advantage of ensuing above-average profitability. Supply would consequently increase and the relative price would fall until it was in line with the dictates of value content and average profitability. The opposite would take place if relative prices were below what they should be. Through the movement of capital, exchange ratios among commodities would come to possess objective determination based on the underlying social reality of value as abstract labour.⁴⁶

Nevertheless, even under capitalist conditions, there are many types of labour that do not count as value. Similarly, there are products and activities that cannot, or do not, count as commodities. The capitalist economy comprises a territory with its own structure for the reproduction of both capital and the mode of production as a whole. It contains the broad economic spheres of production and circulation of capital, which subsume plain circulation of commodities and money, turning it into an aspect of the circulation of capital. These spheres negatively define labours that do not produce commodities even though they may appear so to do.

That is typically the case for the labour of workers employed in commercial activities (retail and wholesale), workers employed in the diverse activities of the financial sector (such as banking and the stock market), workers employed in much of state-run health provision, and so on. Analogously, there are capitalist activities and goods that assume the commodity form without actually

45 This does not mean that price ratios would be 'proportionate to' abstract labour ratios. It has been well understood since the time of Adam Smith that the labour theory of value does not provide a precise theory of relative prices. This is precluded by formation of a general rate of profit among capitalist enterprises (and by the rent paid for property in land).

46 This presentation of the relationship of form to substance of value in this chapter owes a heavy debt to the Uno tradition of Japanese Marxism (see Uno 1980).

producing commodities, but purely because of money payments made.⁴⁷ A typical instance would be trading in land, which involves no labour in production but entails the appropriation of surplus value as rent due to property in land. Another would be trading in insurance, which similarly involves no labour in production but allows appropriation of surplus value in view of concentration of money reserves aimed at covering accidents and unforeseen events. In the same category would belong any number of purely social relations to which money would be attached, even though commodities might be entirely absent, such as the payment of fines, or the payment of money in bribes and other forms of corruption. The form of the commodity would be attached to these activities despite commodities being neither produced nor present.

Thus, under capitalist conditions, the form of value could become entirely detached from the substance of value. Products, assets (financial and other) and even social relations could, and do, assume the 'price' form without a direct connection with value production. Regularity in such prices would be attained through widely varying mechanisms, all of which would involve a measure of non-market relations.

Some of these prices would indeed depend on economic mechanisms, which might be unrelated to value creation but still contribute to price regularity: the price of land, for instance, results from discounting expected future rental income; the price of bonds from discounting promised future interest payments; the price of shares from discounting expected future dividends. Social validity and regularity would also accrue from the repetition of transactions that would create custom, or even through legal and statutory mechanisms. The level of bribes (the 'price' of having something done), for instance, would be pure custom deriving from repetition of the 'transaction'. The level of fines, on the other hand, would be legally set and might or might not reflect custom but would nonetheless be validated through repetition.

Value substance is absent, or very little developed, in non-capitalist societies, since these lack the social mechanisms that would systematically equate diverse concrete labours and transform them into abstract labour. Though there have been non-capitalist societies with a developed division of labour, the latter never approaches the refinement of the capitalist division of labour. Similarly, autonomy and competition among producers with regard to output is rarely found in non-capitalist societies, and does not have the systematic and society-wide aspect of capitalist competition. Finally, though wage labour is a form of employment that could be found in non-capitalist societies, the latter

47 This issue is more fully discussed in Fine and Lapavistas 2000.

typically lack a broad and stable labour market, and thus a society-wide working class separated from the means of production and moving freely among jobs.

Consequently, the exchange value of commodities in non-capitalist societies is a formal property, largely unrelated to the deeper reality of production of social life. Exchange value would take the 'accidental' form when commodity owners would meet each other randomly and occasionally, and could even develop toward the 'expanded', the 'general' and the 'money' forms according as commodity transactions achieved frequency and regularity.⁴⁸ Quantitative ratios among commodities, and even their money prices, would reflect partly the superficial changes of demand and supply in particular markets. But there would be no economic mechanisms that would systematically connect relative prices to the production of material life, summed by abstract labour. It follows that relative prices would also reflect custom and tradition, partly arising out of transactions themselves, and hence they could be arbitrarily changeable and intransitive. On the other hand, it would not be unknown for non-capitalist commodity prices to exhibit remarkable stability, often lasting for years. Such stability would result from age-old repetition of the transactions concerned, expressing social custom rather than value as a social substance related to production of material life.

We seem to have moved a long way from distinguishing between commodity and gift, yet the argument in this section is important for an analysis of the interplay of market with non-market relations. Market transactions involve buying and selling and, as such, could be found across the capitalist economy as well as in widely different social formations. But the similarity in form among market exchanges conceals great differences in substance of value.

In non-capitalist societies, value substance is absent, and the exchange value of commodities strongly reflects custom, chance, moral and social imperatives, hierarchy and power. Under capitalist conditions, commodity price has to comply with underlying economic realities of value as abstract labour. Moreover, because of the characteristic class relations of capitalism, the influence of material economic realities on commodity prices would be expressed through

48 The commodity form could also be adopted simply as a result of transition from non-capitalist to capitalist society as economic activity would take place simultaneously under different modes of production, or at different stages of the same mode of production. Typically, the more developed mode of production would heavily influence the less developed. If, for instance, large-scale farming capital coexisted with subsistence cultivation, it would force upon the latter several aspects of the commodity form, such as the monetary valuation of inputs and outputs, as well as purchase and sale in open markets.

the movement of capital across sectors of the economy. Even under capitalist conditions, however, the commodity form would be adopted by a variety of activities that would be unrelated to value as abstract labour or even unrelated to the economy altogether. Prices of land, of shares, of stocks, of insurance, of bribes, and so on, would be strongly influenced by non-market factors.

This analytical result need not imply the complete absence of economic mechanisms in determining such prices, as, for instance, in the discounting mechanisms of the financial markets. However, it does mean that economic forces would play a far weaker role in determining them compared to the prices of produced commodities that actually contain the substance of value. Non-market factors (for instance, moods of optimism or simply the transactor's probity in payment) would critically affect the determination of prices that are unrelated to value substance. In sum, commodity value and exchange value would represent much more than strictly market relations.

Conclusion

The binary opposition between commodity and gift is problematic as a guide to the analysis of market and non-market relations. A fundamental reason for its inadequacy is that capitalist commodities represent both market and non-market relations. Capitalist markets continually generate non-market relations among participants, while mechanisms exist within the capitalist economy to organise non-market relations and place them at the service of profit-making. The underlying class relations of capitalist society put their imprint on commodities as economic phenomena. This was demonstrated in two separate but related ways.

First, it was shown that the analysis of commodity exchange is incomplete when the theoretical focus is exclusively on the *quid pro quo* of exchange value or relative price. Commodities are also intensely useful – they must possess use value. Analysis of the role of use value in commodity transactions shows that non-market relations are systematically generated among commodity owners. Capitalist markets continually give rise to relations of trust, commitment, power and custom, pivoting on the use value of commodities.

By implication, capitalist markets do not simply entail destruction and marginalisation of non-market relations, but also the continuous generation of fresh non-market relations among participants in commodity exchange. The latter are systematically mobilised in support of capitalist accumulation through the operations of the credit system. When relations of trust and com-

mitment are placed at the service of capitalist accumulation through credit mechanisms, they acquire a money-making aspect, making them prone to fraud and deception.

Second, it was shown that the exchange value of commodities represents both market and non-market relations. Differentiating between value substance and value form is critically important in this respect. Value substance (abstract human labour) is established under explicitly capitalist conditions of production and exchange. For commodities produced by capital, value substance determines the form of value (quantitative ratios and relative prices). Nevertheless, there are several economic and social activities in advanced capitalism which adopt the form of commodities and acquire money prices despite being unrelated both to produced commodities and to the substance of value.

Typical examples are trading in land, insurance and financial assets. Non-market, and even non-economic, factors are important in determining prices (the form of value) for such activities. Similarly, the form of value is regularly found in non-capitalist societies, despite the substance of value being typically absent. The exchange value of commodities in non-capitalist communities and societies strongly represents non-market relations of custom, power and social obligation.

The Emergence of Money in Commodity Exchange, or Money as Monopolist of the Ability to Buy*

1 Introduction: The Problem of Money in General Equilibrium Theory¹

It is a well-known result that in the pure world of general equilibrium, which is replete with symmetric information, a full complement of contingent markets and absence of transactions costs, there is no room for money.² All trading takes place in one period and trade is effectively barter. However, capitalism is a profoundly monetary economy. General equilibrium theory has, thus, considerable difficulties accounting for the most characteristic feature of capitalism.

Clower captured in the following way the aspect of money that general equilibrium finds most difficult to explain:

Money buys goods and goods buy money; but goods do not buy goods ... A commodity is regarded as money for our purposes if and only if it can be traded directly for all other commodities in the economy.³

This is a conjecture that acknowledges the irreducible asymmetry between money and commodities, and it would probably be accepted by most monetary economics, irrespective of school of thought. The point is, of course, that neither Clower, nor any other mainstream economist, has offered a convincing proof for it.

Nonetheless, given Clower's conjecture, money could be introduced into general equilibrium models in several ways, mostly related to money's func-

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1 Thanks are due to Ben Fine, Makoto Itoh, Alfredo Saad-Filho, Stergios Skaperdas and Sedat Aybar for helpful comments on earlier drafts. All errors are the author's responsibility.

2 See Hahn 1982; also Hahn 1965.

3 See Clower 1967, p. 5, original emphasis.

tion as means of exchange.⁴ ‘Cash-in-hand’ models, for instance, suggest that the sum total of gross purchases is equal to the sum of money held at the beginning of the trading period.⁵ Other models that rely on transactions costs and sequential trading stress that money acts as an efficient means of transferring purchasing power from one period to the next by being a store of value.⁶ In yet another class of models, money acts as means of exchange reducing the costs of multilateral direct trading among commodity owners.⁷

It is also important in this context to mention overlapping generations models, which incorporate money along lines proposed by Samuelson.⁸ They focus exclusively on money as store of value, rather than means of exchange, thus Clower’s conjecture appears to be irrelevant to them.⁹ However, quite apart from these models’ disregard of money as means of exchange, they also leave money’s ability to act as store of value (means of hoarding) fundamentally unexplained. The function of store of value cannot be separated from what money is, that is, from its monopoly of the ability to buy. In short, the need directly to confront Clower’s conjecture cannot be obviated by simply ignoring means of exchange.¹⁰

Most of these general equilibrium models are mathematically complex and can often be elegant, but they are inherently limited as theoretical abstractions relevant to a capitalist economy. For if it were assumed that a generally acceptable means of exchange (money) was already in existence, it would not be much of an achievement to show that exchange that used money would be less costly and more efficient than exchange that did not. The real theoretical question is: how does a commodity become a generally acceptable means of exchange through processes endogenous to market trading?

It is evident that the answer is probably related to Clower’s conjecture: if a good had unique buying power, that would be a *prima facie* reason to employ it as means of exchange. But then the question would simply be posed in an even more profound form: what are the processes endogenous to market trading that lead a commodity to acquire the unique property of being able to buy all others?

4 Ostroy and Starr give an excellent, if now dated, survey of how it could be done (1990).

5 See Clower 1967.

6 As suggested by Hahn 1971, and 1973.

7 See Niehans 1969, and 1978.

8 See Samuelson 1958.

9 See Wallace 1980.

10 A full discussion of the connections between money’s functions can be found in Lapavistas 2000.

A willingness to confront the issue of endogenous emergence of money has characterised general equilibrium theorising of money in recent years, which has focused on money's function as means of exchange.¹¹ These models share a number of key features. It is typically assumed that commodities are inherently differentiated either because of the costs of transacting in them, or because of their marketability. Commodity owners meet at random and engage in bilateral trade on a *quid pro quo* basis. They choose trading strategies by taking into account the cost of transacting as well as the marketability of commodities that might be acquired in each transaction.

On this basis, it can be shown in search-theoretic terms that the holder of commodity A might acquire commodity B despite not wanting it *per se*, if the marketability of B was generally believed to be high enough. The underlying reason is that, given belief in the marketability of B, the owner of A would be likely to accept B in exchange because it would then be easier for the owner of A eventually to acquire the commodities genuinely wanted for consumption. Commodity B would, thus, be carried by agents as a means of acquiring other commodities, and it would become a means of exchange, or money.

This argument is claimed to be a demonstration of the spontaneous emergence of money. It is effectively admitted, however, that the argument does not prove Clower's conjecture:

It is hard to imagine why two agents who meet and happen to have a double coincidence in real commodities ... should not be allowed to trade without using fiat currency.¹²

In short, the models generally do not show why 'goods do not buy goods'. Even worse, they exhibit little conceptual novelty, save for the technical sophistication of modelling. As is shown below, the models are conceptually dominated by Menger's original analysis of money's emergence, particularly with regard to social custom.¹³

This article offers an alternative analysis of money's emergence that rests on a strong interpretation and a reworking of Marx's theory of commodity value. Money is shown to emerge out of the process of commodity exchange, and to be the monopolist of the ability to buy. Unlike recent general equilibrium models, however, money is not derived as general means of exchange but as

11 The main contributions being Jones 1976; Iwai 1988; Oh 1989; Kiyotaki and Wright 1989, 1991.

12 See Kiyotaki and Wright 1989, p. 945, n. 14.

13 See Menger 1981, 1892.

the commodity that can buy all others. The derivation makes no use of the heavily disputed Marxist concept of the substance of value as socially necessary abstract labour. Rather, it focuses on the form of value, and in particular on the economic relations that arise between commodity owners in the course of exchange. Fundamental to it is the notion that commodity owners are differentiated into relative and equivalent in any transaction, in ways fully specified below. Finally, social custom is shown to play a pivotal role in money's emergence, but its content is explicitly associated with the social underpinnings of commodity exchange.

The chapter is structured as follows. Section 2 summarises Menger's analysis of money's emergence, contrasting it to contemporary general equilibrium theory. Particular attention is paid to Menger's fundamental concept of saleability or marketability, and its connection with knowledge and social custom. Section 3 turns to the 'riddle of money' from a Marxist standpoint and lays out theoretical foundations for a solution.

Thus, sections 4, 5 and 6, respectively, discuss the economic content of the accidental, expanded and general stages of commodity exchange. The difficult logical problem of passing from the expanded to the general stage is discussed at length, and it is shown that Marx's resolution needs further work. Section 7, consequently, turns to social custom and shows that it is necessary for transition to the general stage. However, in line with the tenor of Marxist political economy, social custom is here explicitly associated with the social underpinnings of trading. Section 8 then turns to the money stage of commodity exchange and shows the importance of social custom for the complete monopolisation of buying power by money. Section 9 concludes.

2 Menger's Analysis of the Origin of Money

For Menger, the emergence of the money commodity ought to be explained in terms of spontaneous action by individual market participants.¹⁴ Thus, he proposed the concept of saleableness of commodities:

¹⁴ See Menger 1892, p. 239. Menger's approach is in contrast to 'chartalist' views that treat money as a social convention created by law and authority. It should be noted that Marx's analysis also stresses the spontaneous aspect of money's emergence, i.e. money as the outcome of exchange relations rather than of state action. Nevertheless, Marx's approach allows for systematic theoretical connections to be drawn between money and the state (see Lapavistas 2003, ch. 6).

The theory of money necessarily presupposes a theory of saleableness of goods. If we grasp this, we shall be able to understand how the almost unlimited saleableness of money is only a special case, – presenting only a difference of degree – of a generic phenomenon of economic life – namely, the difference in saleableness of commodities in general.¹⁵

Saleableness was defined by Menger in accordance with the absolute subjectivism of the Austrian school.¹⁶ Thus, for Menger: ‘A commodity is an economic good *intended* for sale. But it is not intended for sale *unconditionally*’.¹⁷ The ease or ‘facility’ with which the holder could obtain the required ‘economic’ price for the commodity would define its saleableness or marketability. Market factors determine saleableness, including the volume and intensity of the demand for the commodity, the geographical spread of the market and the duration of demand.¹⁸ Consequently, commodities would have variable saleableness or marketability. Commodity owners benefit when they accept more marketable commodities, even though they might have no desire to consume them, because these make it easier eventually to obtain the desired objects of consumption.¹⁹

For individual commodity owners to behave in this way, it is necessary to possess knowledge about the marketability of commodities. Along lines that have now become familiar within the Austrian school, Menger claimed that:

This knowledge will never be attained by all members of a people at the same time. On the contrary, only a small number of economizing individuals will at first recognize the advantage accruing to them from the acceptance of other, more saleable, commodities.²⁰

To forestall circularity, Menger also stated that: ‘This advantage is *independent of a general acknowledgement of any one commodity as money*’.²¹

For Menger, the advantage would be initially apparent only to a few market agents, who would have acquired the vital insight that more marketable commodities are preferable to less marketable ones. Once a small number of agents

15 See Menger 1892, p. 243; original emphasis.

16 See O’Driscoll 1986.

17 See Menger 1981, p. 248, original emphasis.

18 See Menger 1981, pp. 241–7; 1892, pp. 243–5.

19 See Menger 1892, pp. 247–8; 1981, p. 259.

20 See Menger 1981, p. 261; see also 1892, p. 249.

21 See Menger 1981, p. 261; original emphasis.

would have come to possess this radical insight, others would also partake of it as all agents would habitually engage in exchange. The process would be self-reinforcing: the more likely it is that others would accept the commodity, the more strongly it would be demanded in exchange, and the more its saleableness would increase.²² Generalisation of this knowledge across the market through custom and habitual practice among agents would lead to the eventual emergence of money.²³

Contemporary general equilibrium models offer much the same argument, except that marketability is posited simply as a generally held belief that others would want to acquire a particular commodity. This belief is strongest for money hence commodity owners will strive to acquire it. Put differently, it is assumed that there exists a general expectation that money will act as money, which validates itself as soon as money acts as money. For Kiyotaki and Wright, existence of this belief is an unexplained social custom:

[A] critical factor in determining if an object can serve as a medium of exchange is whether or not agents believe that it will. In other words, the use of money necessarily involves strategic elements and certain aspects of 'social custom'.²⁴

But without a precise definition of marketability, or of the process through which it is established and acquired, social custom means absolutely nothing. Thus, Menger's argument contains everything that contemporary models have to offer, and still more. But that does not mean that Menger's own argument is fully satisfactory. By focusing exclusively on the function of means of exchange, Menger did not explain money's unique ability to buy, and offered no grounds on which to substantiate Clower's conjecture. Moreover, his discussion of social custom and knowledge, vital as it is, involves no social processes outside the market and no analysis of the social underpinnings of markets. Ultimately, social custom results from a shaft of light from above, from a revelation about marketability that has struck some gifted individuals in the market. These problems do not exist for analysis that rests on Marx's work.

22 See White 1984, p. 703.

23 See Menger 1892, pp. 248–9.

24 See Kiyotaki and Wright 1989, p. 928. In Iwai, the same argument appears as the generally held belief that money will lower search costs (Iwai 1988). Validation of the belief occurs when money is actually used as means of exchange. This argument is sometimes given the appellation of 'bootstrap' theory of money.

3 Anonymous Exchange and the 'Riddle of Money'

Marx was the first major economist to realise the theoretical problem posed by the existence of money, and he was also the first to tackle it directly:

We have to perform a task never even attempted by bourgeois economics. That is, we have to show the origin of the 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 disappear.²⁵

Marx's analysis of the money-form was a part of his discussion of the exchange value of commodities. Exchange value is, on the one hand, a quantitative proportion between two commodities, a relative price; but, on the other, it is also a set of economic relations between two commodity owners. For Marx, when exchange becomes general and involves large numbers of commodity owners, their economic relations unfold and give rise to money.

In the rest of this chapter, a solution is proposed for the 'riddle of money', i.e. for the emergence of the 'dazzling money-form', in view of the unfolding relations of commodity owners. The solution draws heavily on Marx's work, but remains mindful of general equilibrium and other neoclassical analysis of money. Money is shown to emerge as the monopolist of buying ability, rather than as a simple means of exchange. Demonstrating this point requires a thorough reworking of Marx's own analysis of exchange value, not least with regard to social custom and its connection with the social underpinnings of commodity exchange.

Following Marx, commodities should be theoretically differentiated from products in general.²⁶ The products of human labour are not immediately commodities but become so only under appropriate social relations of production, distribution and exchange. There have been human societies for which the bulk of products never became commodities. Equally, it is an easily observed historical fact that commodity trading has occurred under a great variety of social relations. In consequence, our initial assumption is simply that the social relations underpinning commodity exchange are such that commodity owners are alien and separate from each other when they come to trade.

25 See Marx 1976b, p. 139.

26 See Marx 1973; see also Fine and Lapavistas 2000.

It is vital for the theoretical derivation of money to stress that commodity exchange typically rests on social relations that enable trade to be 'anonymous'. From this standpoint, commodity owners are primarily motivated by private gain, and approach each other without prior ties of kinship, religion or hierarchical authority. It could thus be shown that money as the monopolist of buying ability results from economic relations that unfold among mutually alien exchange participants. These relations also transform money into the social nexus that binds exchange participants together.

However, it is also shown below that money's emergence would be impossible without certain social customs and common perceptions held by exchange participants. This result poses considerable conceptual and analytical difficulties because it implies relations among commodity owners that involve collegiality, familiarity, trust and moral obligation. The social custom and the common perceptions that are necessary for money's emergence must also be compatible with the exceptional degree of estrangement that is characteristic of commodity owners. Few historically observed societies have exhibited such a peculiar combination of social elements.

Capitalist social relations, i.e. private profit-making through the employment of wage labour, could allow for the extraordinary combination of essential foreign-ness and social custom among commodity owners that is required for money. But the historical emergence of money long predates the establishment of a capitalist economy. Thus, it is suggested in this chapter that money emerges historically where separate communities and societies come into contact with each other. At those points of economic interaction, it is possible for traders to be mutually foreign and independent but still develop customary links with each other.

The basic analytical framework in the rest of the chapter is as follows. Each commodity owner is assumed to possess a definite quantity of one commodity. They meet in pairs, and their interactions are random but only in the sense that any two among them could in principle meet. Commodity owners purposely seek others in order to engage in exchange, but it is assumed for simplicity that there are no search costs. Commodity owners are also assumed to be unrelated and probably unknown to each other, lacking social or other ties (of rank, kinship, religion, custom, or through the production process). The social background against which they interact is compatible with their essential foreign-ness from each other, as well as with being motivated by economic gain. Their interactions have an overwhelming economic (more strictly, commercial) content, which is fundamental to the emergence of money.

The relevant part of Marx's work for our purposes is Section 3 of Chapter 1 of *Capital*, headed '*The value-form, or exchange-value*'. The resolution of the

'riddle of money', according to Marx, proceeds in four interrelated stages, the four 'forms of value' further analysed below. For completeness it should also be mentioned that in *Capital* and elsewhere Marx developed a further and rather different argument, namely that money emerges as the resolution for the contradictions between the use value and the value (abstract labour) of a commodity.²⁷ Put briefly, as value, the commodity is general, that is, homogeneous, divisible, simple; as use value, it is particular, that is, heterogeneous, indivisible, complex. The evident contradictions between these two aspects of the commodity lead to the continuous breakdown of direct commodity exchange, until money emerges representing value (the general aspect) for all commodities. The contradictions are then 'pacified' because commodities are use values as themselves and values as something other, i.e. as money.

This is an elegant example of Marx's dialectic, but the underlying economic argument is reminiscent of Adam Smith and John Stuart Mill.²⁸ Both identified the problems created for direct exchange by commodity heterogeneity, imperfect divisibility, lack of durability, and so on, and both claimed that these problems are solved by money. Early neoclassical theorists were similarly aware of the problem posed by the 'double coincidence of wants'.²⁹ But they further realised that the incompatibility of wants could do no more than reveal the necessity of money for regular, systematic and smooth commodity exchange. However, incompatibility of wants offers little insight into the process of the spontaneous emergence of money in commodity exchange. Menger avoided this trap, whatever the shortcomings of his own solution.

Marx's analysis of money as the resolution of the contradictions between use value and value (abstract labour) certainly demonstrates that money is necessary for broad and regular commodity exchange. But this analysis does not establish the process through which money would emerge spontaneously. For, if money did exist, the contradictions between use value and value would indeed be pacified, but the point is to show that the contradictions would logically induce the emergence of money. No such analytical demonstration can be found in Marx's work on money.

Marx's analysis of the form of value in the first chapter of *Capital*, on the other hand, offers the outline of a theory of money's emergence. In the rest of this chapter, Marx's discussion of the dialectics of the 'relative' and the 'equivalent' elements of the simple form of value is reinterpreted in terms of

27 See, for instance, Marx 1970, pp. 42–6; see also 1973, pp. 142–5.

28 See Smith 1904, Vol. I, ch. v, and Mill 1965, ch. VIII.

29 See Jevons 1875.

the (private and social) relations among commodity owners. It is, thus, shown that money's emergence is an analytical process – a 'becoming' – that unfolds from the first stage of the form of value through the subsequent three stages.

The general method of proof – following Marx – is to demonstrate that each stage contains economic processes that lead to the next, until the last stage emerges and money is established. Marx claimed that the most difficult aspect of the demonstration is to prove that the reasons for money's emergence are already implicit in the first stage.³⁰ There is no doubt that this is the most difficult part of the analysis. However, it is shown below that major difficulties also exist in proving the logical passage between the stages. Social custom plays a vital role in this connection, something that is not immediately evident in Marx's work.

4 Stage One: 'The Simple, Isolated, or Accidental Form of Value'

The accidental interaction between two commodity owners was captured by Marx through a simple equality:³¹

$$x \text{ of commodity A} = y \text{ of commodity B}$$

It is trivial that this is formally a symmetrical relationship. Nevertheless, Marx was also at pains to identify a lack of symmetry between A and B:

Here two different kinds of commodities (in our example the linen and the coat) evidently play two different parts. The linen [A] expresses its value in the coat; the coat [B] serves as the material in which that value is expressed. The first commodity plays an active role, the second a passive one.³²

Marx called commodity A the active or the relative, and commodity B the passive or the equivalent. Even though the relation of equality could evidently be reversed, Marx still claimed that it would not imply the existence of formal symmetry between the two parts of the exchange relation. The relative and the equivalent remain polar opposites as far as their analytical content is concerned:

³⁰ See Marx 1976b, p. 139.

³¹ Ibid.

³² Ibid.

In this case I must reverse the equation in order to express the value of the coat relatively; and if I do that, the linen becomes the equivalent instead of the coat. 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.³³

In sum, for Marx, the equality 'x of A = y of B' appears to capture a different relationship from the equality 'y of B = x of A'. However, the content of the putative difference is neither immediately clear nor intuitive. Moreover, given the undoubted formal equivalence between the two expressions, the assertion of difference is a constant source of tension in the rest of Marx's own analysis.

The interpretation suggested here is that the difference between the two expressions refers to the way in which exchange relations are invited between the (mutually foreign) owners of A and B. Specifically, in 'x of A = y of B', the owner of A (the relative) approaches the owner of B (the equivalent) and makes a request for exchange by offering A for B; in 'y of B = x of A' the reverse holds true. Thus, in 'x of A = y of B', the owner of A takes the initiative and actively invites exchange, while the owner of B responds passively. In 'y of B = x of A', on the other hand, economic relations between A and B are different, because B takes the initiative in the exchange relationship.

Another way of putting this point is that, for exchange relations to occur between participants who lack social or other ties, an opening gambit is necessary. This takes the form of the owner of a commodity addressing another with a request for exchange by offering own commodity for that of the other. Thus, in 'x of A = y of B', the left-hand side actively requests exchange with the right-hand side by offering x of A. By the same token, B responds by acceding to, or rejecting, the request.

We could also call the opening gambit made by the relative an offer to sell, while the response of the equivalent would be a decision to buy (or not). Thus, sale corresponds to the action of the relative or active, while purchase to that of the equivalent or passive commodity owner.³⁴ Naturally, both sale and purchase would be properly defined only if money were already in existence, thus the terms should be used with caution at the accidental stage at which money is by construction absent. However, it is shown below that money stands for monopolisation of the ability to buy which is already present in embryo at

33 Marx 1976b, p. 140.

34 See Itoh 1980.

the simple stage. Consequently, the difference between 'x of A = y of B' and 'y of B = x of A' would emerge sharply if it were heuristically considered that in the former A is sold and B buys, while in the latter B is sold and A buys.

A simple formal way of representing the inherent asymmetry of simple exchange would be to employ an arrow, thus abandoning Marx's use of equalities.³⁵ The accidental interaction between two commodity owners would thus be given by:³⁶

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

In this light, the economic content of (embryonic) sale differs from that of (embryonic) purchase. To sell is actively to request exchange at a time and place of one's choosing, i.e. to reveal one's intention to exchange in a specific way. To purchase, on the other hand, is passively to consent to an offer of a sale, i.e. to accept the initiative of the seller. At this stage of the demonstration of money's emergence, commodity owners enter the process of exchange with the undifferentiated intention of engaging in trade, thus they might assume either the active or the passive role without prejudice. In the presence of money, however, all commodity owners would bring their goods to exchange with the active intention of selling. Money-holders, on the other hand, would enter exchange with the aim of passively accepting offers of sale.

An important question to answer in this connection is: why could it not be assumed that the opening gambit is made by the equivalent? Why assume that the initiative originates with the seller rather than the buyer? In answering, it should be noted that Marx explicitly specified the equivalent as the passive party in exchange transactions, and subsequently defined money as the universal equivalent. It follows that, for Marx, money is universally passive, while other commodities are active.

This is an acute insight into developed monetary exchange. Even casual observation indicates that commodity sellers typically invite purchase by offering commodities for sale in shops, warehouses, catalogues, and so on; buyers,

35 The asymmetrical relationship between money and commodities, and its connection to the asymmetrical relationship among commodity owners in the accidental form of value, is a hallmark of the Japanese Marxist Uno tradition (see Itoh 1980; Sekine 1999; see also Sekine 1997). The approach of the Uno School has broadly informed the analysis in this chapter.

36 Sekine has also used an arrow in this connection (Sekine 1999). I must thank Stergios Skaperdas for independently arguing in favour of using an arrow, thus persuading me to use Sekine's formulation.

on the other hand, accede to, or refuse, such offers. Commodity markets are the social terrain on which commodity owners actively invite buyers to part with their money. A major advantage of the assumption that 'to be active' is 'to invite exchange relations between commodity owners', and broadly corresponds with sale, is that it allows for the theoretical incorporation of this vital aspect of monetary exchange. It is true that buyers occasionally also declare their intention to acquire particular commodities, for instance, through newspapers and specialist magazines. But this amounts to searching for exchange partners, which has nothing to do with the active-passive polarity of the forms of value, as is briefly shown below.

To be more specific, to be active in commodity exchange is not to search for counter-parties, and to be passive is not to wait until a request has been received. All commodity owners in principle search for suitable partners, but they do not thereby automatically assume the position of the active party in trading. Commodity owners still have to establish a mutual relationship when they meet after searching, since they are (by assumption) unrelated and probably unknown to each other. For any pair of commodity owners, one must actively take the initiative and invite exchange. Thus, the terms 'active' and 'passive' refer purely to the economic relationship between commodity owners after they have met; that is, after searching is already complete.

In developed monetary exchange, searching for partners is typically (but not exclusively) undertaken by the holders of money. However, this occurs because money holders are able to take for granted the fact that commodity owners will have already offered their commodities for sale against money, thereby inviting exchange. In developed monetary exchange, the opening gambit is constantly made in shops and warehouses: sellers are immediately active, allowing money holders to search for partners to whose offers they would accede. In accidental exchange, sale and purchase are present in embryonic form in each transaction. The active aspect of sale is captured by the assumption that the relative (rather than the equivalent) makes the opening gambit, while making it possible to show that money's emergence corresponds to establishing sale proper.

Haggling in the course of exchange poses no particular analytical problems for this approach. Any opening gambit between mutually foreign commodity owners must take the form, explicitly or implicitly, of offering own commodity for that of another owner, since commodity owners have no means of communicating other than through their commodities. Thus, the exact formulation of the opening gambit is not important – it could even be made in silent way, as is shown in Section 7. Moreover, the active-passive relationship is not established by the precise quantities offered, but by the initial request, which invites exchange. Thus, assuming that the initial request was made by A, the content

of the relationship between A and B would not change if B suggested different quantitative terms. This is broadly analogous to money holders suggesting different prices to commodity owners, while still remaining buyers. The content of relative-equivalent refers to the private and social aspects of exchange value and of the ability to pay, discussed immediately below. These aspects do not result from the precise quantitative ratio that is eventually agreed among commodity owners.

The economics of the 'active-passive' relationship is pivotal to the eventual emergence of money. The meeting of A and B is by assumption an accidental or isolated occurrence between unrelated individuals. Before entering exchange, neither knew whether it was at all possible directly to engage in exchange. They also did not know what quantity of other commodities could be obtained in exchange. The exchange value of their commodities was a matter of personal expectation and nothing more. When A and B engage in trade as the active and passive parties respectively, exchange value becomes more concrete, but in different ways for each. On the one hand, the owner of A declares unilaterally that A's per unit exchange value is equal to y/x of B. On the other, the owner of B is informed that B could be directly exchanged with A. If the transaction actually took place, both pieces of information would be established as valid.

The most important result here is that when an 'accidental or simple' exchange actually occurs, the equivalent becomes directly exchangeable with the relative. This is a property acquired by B that, at first sight, appears similar to Menger's marketability or saleableness, namely the ease of selling commodities. But the commodity that is sold is A, while B buys. The direct exchangeability of B is, rather, an embryonic ability to buy, which is neither an inherent nor a permanent feature of the commodity. It derives purely from the request for exchange made by A's owner and exists only in relation to A.

In this light, the emergence of money is a process through which one commodity acquires direct exchangeability with all others. One commodity becomes the equivalent of all others because all others are automatically offered for sale against this single commodity. Money's emergence comprises four stages, starting with the accidental; the method of proof, as already mentioned, is to identify economic processes present in each stage that lead to the next.

The relevant economic process that makes for passage to the next stage is clear for the accidental stage. Both the exchange value of A (i.e. y/x of B) and the direct exchangeability acquired by B are valid only for the relationship 'x of A = y of B'. Therefore, both are fleeting and partial properties, and have to be established afresh in any other transaction. Establishing these afresh

is neither certain nor predictable in accidental exchange. First, the owner of A might not enter the process of exchange again (either at all or within a reasonable length of time), thus making it invalid to represent A's exchange value as y/x of B. Second, if A's owner does re-enter the process of exchange, accidental exchange might take place with another commodity, say, C. This would result in A's exchange value being represented in terms of C, as well as establishing direct exchangeability for C relative to A – leaving B out of the reckoning. Third, in the next transaction, A's owner might be the passive party.

Nevertheless, the random aspect of the accidental stage also provides a way out. In principle, A's owner could make an offer of sale to any and all other commodity owners. Provided that there could be repeated entry in the process of exchange, this possibility becomes real and affects the position of A as a relative. Namely, the full representation of A as a relative requires an exhaustive list of equivalent commodities. This introduces the second stage in the emergence of money.

5 Stage Two: 'The Total or Expanded Form of Value'

The expanded stage comprises requests for exchange made by A toward all the other commodity owners:

x of A → y of B
 x of A → u of C
 x of A → w of D
 ...

At this stage, the asymmetry between relative and equivalent has been put on a different footing, since there is only A on the left-hand side and all other commodities are on the right-hand side. This sharpening of the asymmetry has implications for the relative. A's per unit exchange value is represented simultaneously and across the realm of exchange as a boundless (or very large) set of quantitative ratios: $\{y/x, u/x, w/x, \dots\}$.³⁷ A's exchange value has become a

37 This formal presentation of the expanded stage is slightly different from Marx (1976b, p. 154), who writes: 'z commodity A = u commodity B or = v commodity C or = w commodity D or = x commodity E or = etc.'. The presentation in this chapter makes it easier to grasp the economic content of the expanded stage, especially the indeterminate character of the relative.

less partial and fleeting property, since it is represented by a set that contains quantities of all other commodities and not just a single one. Given that it refers to all other commodities, the exchange value of A has acquired some generality, and hence an objective character that applies across the realm of exchange. By this token, there are also implications for the equivalent. The ability to buy is spread across the sphere of exchange, and is acquired by all commodities other than A. Thus, the ability to buy is both less partial and less fleeting compared to its presence at the accidental stage.

Another way of putting the point, though not in Marx's terms, is that at the expanded stage both exchange value and ability to buy have become social norms. Exchange value is now an aspect of A that is recognised by exchange participants and incorporated into their trading practices. Exchange practice, furthermore, makes the property of direct exchangeability (ability to buy) valid for all commodities, except for the relative A. Nevertheless, both of these norms are purely exchange-based and lack deeper social origins.³⁸ Even worse, their foundations are slender because both originate in market-wide requests for exchange originating from a single commodity. It is shown below that the emergence of money could be thought of as a process through which both exchange value and the ability to buy acquire sounder social foundations, though still purely at the level of exchange.

Specifying the economic processes that lead to the passage from the expanded to the general stage is far from easy. There are logical and analytical difficulties with Marx's own discussion of the issue, discussed below. For Marx, the relative side is defective because it is an endless series of representations, a 'motley mosaic of disparate and unconnected expressions of value' that are different for each commodity.³⁹ Analogously, the defect of the equivalent side is that it comprises an endless series of particular 'equivalents', each of which excludes the others.⁴⁰

38 For commodity value to become a social norm with foundations deeper than the market, conditions of production also have to be appropriate. Specifically, capitalist conditions must prevail, such that money profits are systematically generated in production and accrue in commodity markets, while workers obtain money income in the labour market. Commodity value then becomes a deeply based social norm, summed up as 'abstract labour' (see Fine and Lapavistas 2000). Under such conditions, money has its own value as abstract labour, which does not impinge upon its monopolistic ability to buy, but creates complications regarding the prices at which commodities are bought (see Lapavistas 2000).

39 See Marx 1976b, p. 156.

40 Marx 1976b, 156–7.

In our terms, the defect of the expanded stage is that its equivalent side is a boundless (or very large) set of quantitative ratios. The economic forces at work are clear to some extent. The owner of A now offers x for y of B, next x for u of C, then x for w of D, and so on. Thus, for exchange participants, the terms on which A is offered for sale are irregular and extremely heterogeneous, hence they lack full generality. The norm of A's exchange value does not have a general character despite having exchange-wide breadth. Similarly, all the other commodities receive direct exchangeability from A's requests for exchange, and hence their direct exchangeability is limited and encompassing only A. Both B and C, for instance, could immediately buy A; but to exchange with each other they would have to go through the whole rigmarole of offer and acceptance/rejection, without any presumption at the outset as to which would be active and which passive. Thus, for the process of exchange as a whole, the norm of the ability to buy is thinly spread and has no generality at all.

The economics of the passage to the general stage, however, is far from clear. Marx offered the following formal argument on this issue:

In fact, when a person exchanges his linen for many other commodities, and thus expresses its value in a series of other commodities, it necessarily follows that the other owners of commodities exchange them for the linen, and therefore express the values of their various commodities in one and the same third commodity, the linen. If, then, we reverse the series 20 yards of linen = 1 coat, or = 10 lb. of tea, etc., i.e. if we give expression to the converse relation already implied in the series, we get [the general form of value].⁴¹

Thus, for Marx, the transition to the general stage appeared to be the simple matter of rewriting a series of equalities in reverse order. It is shown below that this is formally unsatisfactory. Moreover, this procedure has nothing to say about the social processes that lead to the emergence of the general stage. When these are considered, it becomes clear that passage to the general stage cannot be a matter of pure economic forces alone. Social custom and explicit consideration of the broad underpinnings of the process of exchange must come into play.

41 Marx 1976b, p. 157.

6 Stage Three: 'The General Form of Value'

The general stage can be summed up as the following series of requests of exchange, which entails a profound transformation of both relative and equivalent:

y of B \rightarrow x of A
 u of C \rightarrow x of A
 w of D \rightarrow x of A
 ...

On the relative side, the per unit exchange value of commodities can now be represented as different quantities of A. This is a simple representation of exchange value that is essentially common to all commodities other than A. Exchange value has thus become a norm that applies to all commodities (bar A) and with a common reference point. Exchange participants can expect commodities to be offered for sale on terms that are regular and homogeneous, since they are couched in quantities of A.

On the equivalent side, A now possesses direct exchangeability with all other commodities, it can buy all others, it is the universal equivalent.⁴² The ability of A to buy derives from the requests for exchange made by all other commodity owners, therefore it is not limited with respect to any other. This is a universal ability, turning A into money.

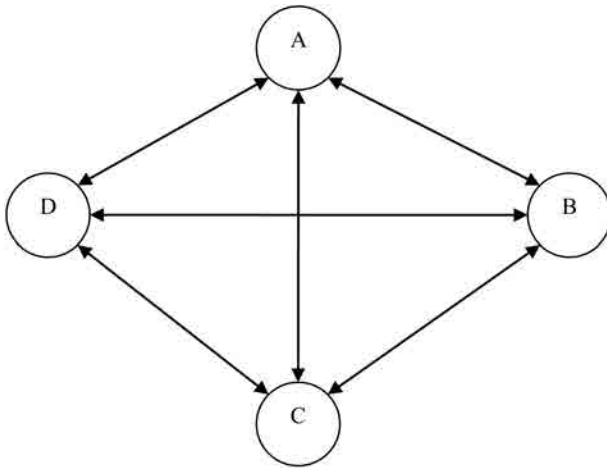
It is apparent, therefore, that both the logical necessity and the economic content of the transition to the general form of value must be demonstrated with precision. Unfortunately, Marx's suggestion simply to rewrite the expanded form in reverse is not adequate, as can be seen in the following two ways.

First, any set of n commodities could produce $n(n-1)/2$ pair-wise exchange relations. If relative and equivalent were systematically distinguished from each other (i.e. if 'x of A = y of B' was considered different from 'y of B = x of A'), the total would obviously rise to $n(n-1)$. Marx simply isolated $(n-1)$ of those on the grounds that they all have the same commodity on the right-hand side, and then declared the single commodity to be the universal equivalent. But then it follows immediately that there are n universal equivalents, since each one of {B, C, D, ...} could also be isolated on the right-hand side.

⁴² Marx 1976b, p. 159.

Marx appeared to forestall this objection by stating that: 'The universal equivalent form is a form of value in general. It can therefore be assumed by any commodity'.⁴³ This statement, undoubtedly true as it is, cannot be sufficient. The simple reversal of the expanded form would not show that *any* commodity could be the universal equivalent, but that *all* commodities are the universal equivalent. But if all are the universal equivalent, none is.

Second, the general form is supposed to contain a pronounced asymmetry between commodities, since only A possesses direct exchangeability with the others. Consider the following simple diagrammatic representation of all possible bilateral exchanges within a set of four commodities, A, B, C, D:



An arrow pointing toward a commodity indicates a request for exchange and turns it into an equivalent. If B, C and D were arbitrarily separated as a group of relatives, A would appear to stand out as the universal equivalent. But for the group as a whole, the skein of bilateral relations exhibits no inherent difference between A and the others. All commodity owners address requests to all others, and all receive requests from all others: no commodity stands out and there is no universal asymmetry. None of the permutations $\{[B, C, D], A\}$, $\{[A, C, D], B\}$, $\{[A, B, D], C\}$ and $\{[A, B, C], D\}$ stands out. There is no universal and absolute asymmetry, but rather a symmetrical distribution of four instances of partial asymmetry. No commodity is singled out at all.

43 Marx 1976b, p. 162.

In sum, the problem of passage to the general form cannot be settled by simple reversal of the equalities of the expanded form. Formally, for any set of commodities, such a step would result in all becoming universal equivalents. This difficulty indicates a deeper analytical problem. If exchange relations involve only sale and purchase, and if all commodities are equally capable of both, then all numerically equal sets of commodities would be indistinguishable from each other. Plain buying and selling is incapable of making a particular set stand out and in this way isolate a universal equivalent.

Menger was clearly aware of the logical problem of establishing a relationship of universal asymmetry among commodities. Consequently, he argued at the outset that commodities are differentiated among themselves in terms of marketability. Even so, he still had to assume that a select few commodity owners had a flash of insight about marketability that eventually led to the emergence of money, given social customs associated with trading. Contemporary general equilibrium follows a similar path, without specifying the content of social custom.

In reworking Marx's analysis we have differentiated between active and passive commodities in all bilateral transactions. But this is still not enough for the emergence of a single passive commodity for the entire set. It is shown below that, for universal asymmetry among commodities to emerge, the role of social custom is vital. This implies the existence of customary exchange practices (other than buying and selling) that take root among essentially foreign commodity owners.

7 Social Custom and the Universal Equivalent

Despite the problems with his formal argument of transition to the general stage, Marx's analysis of money's emergence offers an important insight on the significance of social custom. Consider the following claim made in chapter 2 of the first volume of *Capital*:

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 particular kind of commodity to which it sticks is at first a matter of accident. Nevertheless there are two circumstances which are by and large decisive. 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.⁴⁴

The quote suggests that some commodities are more likely than others to become universal equivalents, namely commodities that foreigners bring to a community, or those that a community could most easily trade with others.

This view accords with another claim made by Marx, found in several places of his work, that trade historically arose at the point where separate communities came into contact with each other, rather than within communities.⁴⁵ For Marx, the historical agents of trade were the 'pure trading peoples of antiquity' (Phoenicians and Carthaginians) who connected societies that did not inherently rely on commodity exchange to ensure their reproduction. Leaving aside the historical (and anthropological) accuracy of this claim, it is evident that for Marx the social underpinnings of the process of exchange, even the physical and geographical configuration of the latter, were paramount factors in money's emergence.⁴⁶

The analytical assumption underpinning this article is that commodity owners are guided by economic benefits, and remain unaffected by kinship, rank, religion and authority. Capitalist trade certainly fits these requirements, but the existence of money long predates the emergence of the capitalist mode of production. In historical terms, the conditions of impersonal exchange also broadly apply to trade between separate communities, where the social ties between traders are at their weakest. In such trade, essential 'foreign-ness' could prevail among exchange participants, who could relate to each other purely as commodity owners. In contrast, economic interaction within non-capitalist communities cannot be extricated from the thick web of non-economic relations of power, prestige and kinship pervading social life. Within non-capitalist communities, exchange is unlikely to be impersonal or anonymous.

Marx's comment about the 'pure trading peoples of antiquity' reveals much about the weight he attached to the social underpinnings of exchange in inducing money's emergence. Of critical importance in this respect is an observa-

44 Marx 1976b, pp. 182–3.

45 See, for instance, Marx 1976b, p. 182; 1973, p. 223; 1981, pp. 447–8.

46 For further discussion of the historical and anthropological literature, see Itoh and Lapavistas 1999, chs 2, 10.

tion made by Herodotus regarding Carthaginian trading with natives of 'Libya' (i.e. of Africa beyond the Pillars of Hercules):

On reaching this country, they unload their goods, arrange them tidily along the beach, and then, returning to their boats, raise a smoke. Seeing the smoke, the natives come down to the beach, place on the ground a certain quantity of gold in exchange for the goods, and go off again to a distance. The Carthaginians then come ashore and take a look at the gold; and if they think that it represents a fair price for their wares, they collect it and go away; if, on the other hand, it seems too little, they go back aboard and wait, and the natives come and add to the gold until they are satisfied. There is perfect honesty on both sides; the Carthaginians never touch the gold until it equals in value what they have offered for sale, and the natives never touch the goods until the gold has been taken away.⁴⁷

All essential components of trading between alien peoples are summed up by the great historian: the ever-present threat of violence (dealt with by avoiding face-to-face contact); the request for exchange made through the (silent) opening gambit of offering commodities; the representation of the exchange value of the relative as a quantity of another; the direct exchangeability of the equivalent (gold) and the exchange-related custom of honesty (probably induced by repeated trading visits). Grierson has described similar forms of primitive exchange, focusing on hostility and fear of the stranger, but also on the difficulty of communicating between alien peoples who lack a common language.⁴⁸ He called this early form of barter 'silent trade', a term that has become standard in anthropological work.

Social custom and other non-market relations are vital to creating the universal asymmetry among commodities that would be necessary for money to emerge. Plain economic relations are not enough, in view of the inherent equivalence of all commodities as exchangeable things. The requisite non-market relations would probably be associated with customary links among communities that would be likely to result in traditional chains of transactions involving some commodities more heavily than others.

The traditional character of much pre-capitalist trade is well attested historically.⁴⁹ Traditional transaction chains typically reflect the material and social

47 See Herodotus 1954, p. 307.

48 See Grierson 1903.

49 See, for instance, Braudel 1982.

environment within which trade takes place. In areas where cattle herding is favoured by geography and climate, cattle are more likely to be available for trade with outsiders; where captives are abundant from habits of raiding and war, slaves will be readily sought in exchange by other communities; if salt can be easily mined, salt will be widely available for trade. The customary and traditional aspects of transaction chains result from repetition of trade over a long period of time. Timing, location, transport, ritual, and so on, are stamped by habitual practice.

Transition to the general stage is likely to occur within chains of customary transactions repeated along established patterns. Such chains already in practice separate a small number of commodities from the rest. They are also likely to contain one or more commodities that habitually attract several requests for exchange. For this to happen, there is neither a need for commodities to have special properties (marketability), nor for exchange participants to have any sudden insights about commodities. Pure chance, a sufficient length of time and frequent repetition of transactions are enough. Should a commodity find itself in the position of attracting several requests of exchange, through a combination of chance and custom, the asymmetry among commodities would then be exacerbated through the ensuing self-reinforcing process.

To be more precise, a commonly requested commodity acquires direct exchangeability with those that have been offered for it. In an important insight, Marx claimed the property of being able to buy the commodities offered constitutes a new use value.⁵⁰ He called it a 'formal use-value', that is, a use value which would derive purely from the commodity's functioning in exchange and would be unrelated to its physical make up. This 'formal use value' is pivotal to money's emergence.

If the new use value became attached to a commodity even temporarily, the latter would be likely to attract further requests for exchange purely because of its ability to buy. This process would establish an economic mechanism that would lead to the emergence of the general stage. Since the new use value would derive purely from other commodities being offered for a single commodity, the more that this would happen, the stronger would be the ability to buy, and the more that the single commodity would attract further requests for exchange. A path would be laid for transition to the general stage.

To sum up, two factors are necessary for the expanded to give way to the general stage. The first is social custom found within traditional transaction chains,

50 See Marx 1976b, p. 184.

raising the possibility that some commodities would attract several requests for exchange at once. The second is self-reinforcement of the ability to buy on purely economic grounds, as exchange participants would take advantage of the 'formal' use value of the isolated commodities. When the issue is posed in these terms, the parameters of the final transition to the money stage also become clearer. At any point in time, there are likely to be several separate traditional chains of transactions; there could also be more than one universal equivalent within each chain. The implication is that commodity exchange gives rise to several 'monies', spontaneously and continually, which would compete for the position of the 'universal equivalent'.

Each of the partial 'monies' would be in a competitive relationship with all the others since they would all draw their ability to buy from requests addressed to them by a given set of commodities. It follows immediately that each one would be unable to buy several of the commodities that would belong to the set of another.⁵¹ The result would be compartmentalisation and lack of unity of the exchange process. From the perspective of the relatives, moreover, the presence of several partial 'monies' would imply that exchange value lacked a single representation across the sphere of exchange – it would still not be a general exchange norm. Passage to the money stage resolves these issues, but to demonstrate how it occurs it is necessary to seek further recourse to social custom.

8 Stage Four: 'The Money Form'

The money stage can be represented as the following series of requests of exchange:

1 of A → u/v of C
 1 of B → u/y of C
 1 of D → u/w of C
 ...

51 There is similarity here with Polanyi et al.'s 'particular' and general money (1957), but it is more apparent than real. For Polanyi, 'particular' money has a limited purchasing range because it belongs to a non-capitalist society, whereas the money of capitalism is general and has limitless ability to buy. However, the 'universal equivalent' of Marxist analysis could very well exist in non-capitalist societies. The partial monies that arise as a result of custom are only intermediate steps in the monopolisation of buying ability.

The difference with the general stage is that one commodity, c , is now fixed on the right-hand side. Thus, the exchange value of commodities on the relative side is permanently represented by quantities of c alone. Hence exchange value is a stable social norm that applies across the sphere of exchange, even though it is still only based on exchange relations. On the equivalent side, the ability to buy is permanently monopolised by a single commodity. By construction, all other commodities are permanently offered for sale, and do not receive requests of exchange from each other.

The money stage inherently contains the most important component of Clower's conjecture: commodity owners enter the process of exchange with the express purpose of offering their commodities for sale against money; that is, they bring their commodities to market with a definite per unit money price. However, unlike Clower, the money commodity is never offered for sale but always receives requests from other commodities. Commodities do not 'buy' money; only money buys, i.e. it monopolises direct exchangeability. In sharp contrast to general equilibrium analysis, moreover, money is not established as a general means of exchange, but rather as the commodity that can buy all others. If it functions as means of exchange, it is because it has monopolised the power to buy.

This also deals with the major conundrum posed by Clower's conjecture, i.e. why should commodities not buy commodities directly, if their owners have a 'double coincidence of wants' and happen to meet? This is a conceptual problem arising purely because neoclassical economics focuses on money as means of exchange. In the above formulation, owners bring commodities to market already priced in terms of money, i.e. with the intention of selling them for money. There is no reversion to barter even when commodities are actually exchanged without the mediation of money. Money has already accounted for the exchange value of the commodities involved, allowing commodity owners to arrive at a relationship of equivalence.

Indeed, with money present, it is not even necessary to exchange equivalents immediately. Since money accounts for value generally and stably, it is possible to exchange commodities by creating credit and debit obligations, a process that has nothing to do with barter. In short, the defining aspect of money's emergence is not that commodity owners universally employ it as means of exchange. Rather, it is that commodity owners universally seek money in exchange, i.e. they bring their goods to market already with a money price.

Social custom and the physical characteristics of commodities are vital for passage to the money form. Several partial 'monies' emerge at the general stage competing against each other and drawing their relative strength purely from the requests of exchange that each receives. The requests also depend

on the physical properties of these ‘monies’, and on the extent to which their properties adequately correspond with the formal use value of buying other commodities. To use an oft-repeated example, ice cream could certainly be the universal equivalent, but its ability to buy would last physically far less than that of salt. Historically, the physical properties of the precious metals (homogeneity, durability, divisibility, and so on) have proven instrumental in monopolising direct exchangeability.

The social customs attached to the other uses of the precious metals (as commodities rather than as money) are also likely to influence their use as money.⁵² Commodity owners are habituated to precious metals as representatives of the value of commodities, since communities have customarily used gold and silver as jewellery, religious implements and expensive decoration. Once a single commodity starts to be used widely as money, the social custom and habits associated with its use would eventually allow it to beat other ‘monies’ in competition, until its use would become a social norm in itself.

Conclusion

Mainstream economic theory has not dealt successfully with the ‘riddle of money’ in commodity exchange. Contemporary general equilibrium analysis does not go beyond Menger’s concept of marketability, while being decidedly inferior to Menger in analysing the role of social custom in money’s emergence. But Menger’s analysis of marketability is hampered by methodological subjectivism, which prevented him from establishing the social aspects both of money and of the customs that underpin it.

The solution for the ‘riddle of money’ suggested in this chapter – based on a reworking and a strong interpretation of Marx’s analysis of exchange value – is free of these problems. Money was shown to emerge through the analysis of the form of value, by relying on the interplay between the relative (or active) and the equivalent (or passive) sides of exchange value.

The relative is the side that initiates the relationship between two mutually alien commodity owners by making a request for exchange. Correspondingly, the equivalent is the side that might (or might not) accept the request. The request for exchange gives to the equivalent the ability directly to exchange with the commodity whose owner has made the offer. Money’s emergence is the process through which the ability to exchange directly (buy) becomes

⁵² See Marx 1976b, p. 162.

concentrated in one commodity among the many. The universal equivalent possesses the highest degree of direct exchangeability with all others, and at the exclusion of all others. Money is, thus, the only commodity that can buy all others.

This solution highlights the social character of money's emergence. Money results from the collective action of other commodity owners and from social custom associated with commodity exchange. Both Menger and contemporary general equilibrium models recognise the importance of social custom in establishing and generalising the use of money throughout the market. But the constituent elements of such social custom remain beyond the analytical compass of neoclassicism. In contrast, the solution offered here stresses the importance of the social background against which commodity exchange takes place.

For money to emerge there must be autonomy and estrangement among exchange participants, but also traditional practices associated with the process of exchange. Money is generated spontaneously whenever unrelated and mutually unknown commodity owners interact with each other, but only because of their unplanned collective action framed by social custom. The social relations created in this context require that one commodity should be able to buy all others. Money provides a concrete social nexus among mutually alien commodity owners by monopolising the ability to buy.

The Social Relations of Money as Universal Equivalent: A Response to Ingham*

1 Introduction: The Social Relations of 'Money in General'

A short while ago, *Economy and Society* hosted a theoretical debate regarding the conceptualisation of money between, on the one hand, Zelizer and, on the other, Fine and Lapavitsas.¹ To be a little more specific, Zelizer rejected the theorising of money by neoclassical economics (and by some sociology) and claimed that the concept of 'money in general' is invalid. In contrast, Fine and Lapavitsas defend the concept of 'money in general' and analysed it from a Marxist perspective.

Intervening in the debate, Ingham has found both sides in need of 'untangling', despite also 'strongly agreeing' with Fine and Lapavitsas on the main issue in contention.² In particular, he criticised Fine and Lapavitsas for drawing on Marx's work, which he considered to be incapable of supporting a theory of 'money in general'. Complicating things further, Ingham also declared himself 'at odds with Fine and Lapavitsas's interpretation of Marx's conception of money'.³ For Ingham, in short, Fine and Lapavitsas are right to stress the importance of 'money in general', but wrong to rely on Marx, whom they misinterpret to boot.

It is notable that Ingham rejected Fine and Lapavitsas's analysis without properly getting to grips with it. His true aim was to present an alternative theory of 'money in general', associated with the German Historical School and post-Keynesianism. Apparently, Fine and Lapavitsas (and Zelizer) neglected this alternative and, as a result, focused excessively on commodity money, while ignoring credit money and disregarding the social relations inherent to money as 'promise to pay'.

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1 See Zelizer 2000, and Fine and Lapavitsas 2000.

2 See Ingham 2001, p. 305.

3 Ibid.

The charge of neglect is surprising, to say the least, since one of the disputants has extensively discussed this alternative theory, in places that were even mentioned in the original exchanges.⁴ To avoid covering the same ground, therefore, Ingham's alternative approach is briefly recapitulated in the section of this article titled 'Money as a unit of account ...', and its weaknesses, of which he seems unaware, are identified. These weaknesses arise precisely because of the denial of the connection between money and commodities.

The focus of this chapter, however, is on the positive aspect of Ingham's intervention, namely his claim that 'money in general' is 'constituted by *social relations*'.⁵ This is an important insight, except that the social relations involved in money are not those assumed by Ingham, i.e. they are not relations of 'promise to pay' or 'credit-debit'.⁶ In line with his preferred alternative (and presumably neglected) theory, Ingham is mistaken to treat credit money as the generic type of 'money in general'. Rather, the social relations that constitute money are relations of value that emerge among commodity owners engaging in exchange.

These relations are best understood as unfolding out of initial contacts between commodity owners that take the form of 'making a request for exchange – receiving the ability to exchange directly'. Money subsequently monopolises the ability to exchange directly (buy), and thus acts as social nexus among commodity owners. The common content of both commodity and credit money is their absolute ability to buy – not some putative 'promise to pay', as Ingham appears to think. It is worth stressing that this treatment of the social relations of money relies heavily, and develops further, Marx's analysis of money as the universal equivalent. Far from being irrelevant, Marx's political economy is a *sine qua non* for the theory of 'money in general'.

2 Money and the Labour Theory of Value

According to Ingham, the labour theory of value is the weak point of Marx's theory of money:

Marx's theory of money is flawed – like those of other classical economists – because it is grounded in the labour theory of value ... There is no determinate link between money and commodities.⁷

4 See Lapavitsas and Saad-Filho 2000; Itoh and Lapavitsas 1999, chs. 2, 10.

5 Itoh and Lapavitsas 1999, p. 305, original emphasis.

6 Itoh and Lapavitsas 1999, p. 312; see also Ingham 1996, 1998, and, more fully, 2004a.

7 See Ingham 2001, p. 314; see also Ingham 1998, 1999, 2004a, pp. 61–3.

Nonetheless, Ingham also thinks that Fine and Lapavistas have abused the 'classical' labour theory of value:

However, in Fine and Lapavistas's interpretation of Marx, we are not offered the classical labour theory of value nor a reference to any of the recent efforts to reconcile classic Marxism with the reality of credit-money ... Rather, they present an essentially Hegelian formulation of the origins of money.⁸

Ingham's 'classical' (presumably 'classical Marxist') labour theory of value is not at all clear, nor is it apparent how Fine and Lapavistas have diverged from it. Be that as it may, it is shown below that the labour theory of value remains a vital source of insights for the theory of money. The discussion of value draws on the work of Fine and Harris, Weeks, and the Japanese Marxism of the Uno tradition, especially Itoh.⁹

The distinction between form and substance of value is fundamental to establishing the economic content of 'money in general'. It is undeniable that commodities possess the form of value, that is, they always exhibit quantitative equivalences with each other, i.e. they have exchange value. For Marx, however, commodities produced under capitalist conditions also contain definite amounts of the social substance of value (abstract human labour). For commodities produced by capital, the form of value is anchored on the substance of value through a set of social and economic processes. These include the elimination of non-transitivity among commodity prices through regular buying and selling, the movement of workers indifferently between jobs and the homogenisation of work effort as workers are subjected to capitalist exploitation at the workplace. They also include equalisation of profit rates across industrial sectors inducing market prices to gravitate towards prices of production.

However, the form of value can also become detached, or even completely divorced, from the substance of value. In capitalist economies, there is an enormous array of things and activities that appear as commodities without bearing any relation to produced commodities, for instance, real estate, shares, insurance instruments, bribes, fines, and favours. Such things and activities acquire the form of value (money prices) despite being only tenuously related to value as abstract labour. By the same token, their prices heavily reflect non-

8 See Ingham 2001, p. 315.

9 See, respectively, Fine and Harris 1979, Weeks 1981, and Itoh 1976.

economic and arbitrary influences (psychological, political and institutional). Moreover, in non-capitalist societies the form of value is also largely unconnected to the deeper reality of production, since the substance of value is largely absent. Non-capitalist money prices acquire regularity and transitivity due purely to market relations of demand and supply, backed by the habits associated with repeated transactions.

Separation of form from substance of value implies that the economic process of emergence of money is not connected to the substance of value. Equivalently, money's emergence is associated with the development of the form of value.¹⁰ This approach surprised Ingham, to whom it (erroneously) seemed 'Hegelian'.¹¹ On the contrary, it is both materialist and Marxist because it shows money to be the outcome of social relations among commodity owners.

Fundamental to it is the assumption that commodity owners approach each other as 'foreign' individuals. The term 'foreign' is used to denote the absence of pre-existing ties of kinship, hierarchy, tradition and morality among commodity owners that might determine the fundamental content of their exchanges. Commodity owners are disinterested individuals who simply aim at obtaining an equivalent for what they bring to market. Similarly, they do not even need to know each other or, in neoclassical terms, the market is 'anonymous'.

It follows that at any random meeting of two 'foreign' commodity owners, there must be an opening gambit that invites trading relations to occur. An important theoretical innovation subsequently made by this approach to money is to define the opening gambit in terms of the binary opposition of 'relative-equivalent' analysed by Marx in connection with the 'accidental' form of value.¹² Specifically, the opening gambit is taken to be a request for exchange made by the relative party, offering own commodity for the commodity held by the equivalent party.¹³ On this basis, an analytical process could be specified that would lead to money's emergence by drawing on the social relations of 'relative-equivalent'. Ingham appears to have been surprised by the originality of this treatment of money, the key components of which are recapitulated below.

10 See Lapavistas 2003, ch. 3.

11 See Ingham 2001, p. 315.

12 See Marx 1976b, p. 139.

13 The opening gambit is discussed in detail in Lapavistas, where it is also treated as rudimentary offer to sell (2003, ch. 3; 2005a).

3 Social Relations of the Universal Equivalent as Monopolist of the Ability to Buy

The opening gambit of making a request for exchange gives definite direction to the 'accidental' relationship between two commodity owners. The relative is the active party, whose request puts the other in the position of the equivalent, or passive, party. In economic terms, the relative declares the exchange value of own commodity to be represented by a quantity of the commodity possessed by the equivalent. Simultaneously, the equivalent discovers that own commodity could be exchanged directly with (buy) that of the relative. This property of the equivalent commodity is rudimentary 'moneyness', deriving purely from the request for exchange made by the relative. Money as the universal equivalent eventually monopolises the ability to buy, due to spontaneous requests for exchange made by all other commodity owners.

Monopolisation of the ability to buy occurs in successive (analytical) stages, namely as 'accidental' exchange becomes 'expanded', then 'general', and, finally, 'monetary'. The 'expanded' stage follows naturally from the 'accidental', since each commodity owner could in principle address requests for exchange towards any and all others. The 'expanded' stage captures the social relations of one relative confronting endless equivalents, when commodity owners regularly and frequently enter the process of exchange. The owners of the equivalent commodities find that they have acquired a degree of buying ability, if only towards a single relative. The 'general' stage, in contrast to the 'expanded', captures the reverse social relations, that is, of endless relatives addressing a single equivalent. At the 'general' stage, all commodity owners but one make regular and frequent requests for exchange to a single commodity. The single commodity thus possesses overwhelming 'moneyness'. Nonetheless, demonstrating the analytical passage from the 'expanded' to the 'general' stage is far from easy.

A key observation in this respect is that money represents extreme asymmetry among commodities: one commodity is permanently placed on the side of the equivalent and all others on the side of the relative. But commodities are intrinsically symmetric as objects of trade, and this militates against establishment of the absolute asymmetry that is characteristic of money. A solution for this problem, developed elsewhere, is to take extra-economic forces, including social custom, as fundamental to inducing monopolisation of the ability to buy by money.¹⁴

14 See Lapavistas 2003, ch. 3; see also 2005a.

A significant difficulty in this connection is that social custom cannot be immediately assumed to exist among commodity owners, since they are essentially 'foreign' to each other and are thus unconstrained by kinship, religion, hierarchy, and so on. If commodity owners acquired customary relations, these would still be relations among 'foreigners'. A further difficulty is that the very existence of 'foreign-ness', as defined above, seems particularly unlikely within non-capitalist societies, in which economic activity is 'embedded' in power, prestige, kinship and custom.

However, 'foreign-ness' naturally prevails among capitalist traders, and could also exist at the points where non-capitalist communities and societies would engage in trade with each other. This is why Fine and Lapavistas refer to Marx's claim that commodity exchange historically arises where separate communities come into contact with each other.¹⁵ Ingham dismisses this view as based on 'long since superseded history', but misses its analytical importance and, as is shown below, grossly overestimates the historical validity of his preferred alternative view.¹⁶

Appropriate conditions leading to the emergence of money are likely to exist within chains of customary transactions involving 'foreigners' who regularly trade specific commodities. A commodity that is customarily and frequently traded could by chance attract several requests for exchange, leading to the transient appearance of the 'general' stage. It is clear that this could occur for more than one commodity within a chain of transactions. The point is, however, that if a commodity became a general equivalent even temporarily, its enhanced ability to buy would constitute an additional (exchange-related) use value, which Marx called a 'formal' use value.¹⁷ Therefore, that specific commodity would be likely to attract further requests for exchange, strengthening its ability to buy and leading to still more requests for exchange. A process of monopolisation of buying power by one commodity would be set in train.

For the 'money' stage to emerge properly, nonetheless, extra-economic factors would again be necessary. The physical properties of commodities are important in this respect, since durability, homogeneity, divisibility and portability are desirable for the monopolist of buying ability. Social custom is also important, since commodities used for wealth display would be more naturally associated with the ability to buy. Finally, after money would have emerged,

15 See, for instance, Marx 1976b, p. 182, 1973, p. 223, and 1981, pp. 447–8.

16 See Ingham 2001, p. 316. This issue is more fully discussed in Lapavistas 2003, ch. 3.

17 See Marx 1976b, p. 184.

its continuous use would still rely on social custom. Commodity owners automatically offer their commodities for money, expecting that they could obtain money in exchange. The expectations of commodity owners are continually validated by their collective practice.

To recap, Marx's analysis of the form of value provides foundations for the analytical derivation of 'money in general' as the monopolist of the ability to buy. The absolute asymmetry between money and commodities results partly from economic processes and partly from non-economic relations, including social custom. Money, thus, encapsulates the social relations of 'foreign' commodity owners. This result stands in sharp contrast to Ingham's view of money as constituted by social relations characteristic of credit money and 'promises to pay'. The weaknesses of Ingham's view are briefly summarised below.

4 Money as Abstract Unit of Account – Steuart, Chartalism and Post-Keynesianism

According to Ingham, Marx has little to say on credit money and 'seems to understand' its peculiar character only in relation to pre-capitalist formations.¹⁸ Apparently, Marx's view of capitalist credit instruments was 'quite conventional' for his era, and he treated these as '*substitutes*' for hard cash.¹⁹ Ingham even places Marx in the same camp as orthodox monetary theory as far as credit money is concerned, in opposition to post-Keynesian monetary theory. However, Ingham's claims are a caricature of the Marxist theory of credit money.

The first thing to note is that one of the historical antecedents of post-Keynesian monetary theory was the Banking School, famous for its critique of the Bank Act of 1844 in England. The Banking School had an elaborate theory of credit money, rejecting the notion that banknotes (and deposits) were a mere *substitute* for hard cash (gold). They also rejected the orthodoxy of the quantity theory of money, while putting forth the 'law of the reflux' as regulating principle of the quantity of credit money. There is no doubt at all that Marx was strongly sympathetic to the Banking School.²⁰

It is, therefore, very surprising to read the following assertion by Ingham:

18 See Ingham 2001, p. 315.

19 *Ibid.*, original emphasis.

20 See Lapavistas 1994 and 1996.

Marx held the conventional contemporary Currency School view that credit instruments (bills of exchange, promissory notes, etc.) were, or rather should be, in a rationally organised system, no more than functional substitutes for hard cash.²¹

Entirely the reverse holds true. In reality, Marx differentiated between commodity and credit money; distinguished clearly between plain fiat 'paper' money and credit money; postulated a 'cyclical' path for credit money, transparently similar to the 'law of the reflux'; and showed disdain for the quantity theory of money.²²

It is equally surprising for Ingham to claim that Marxist and orthodox monetary theory are similar because both, apparently, 'ignore the distinctiveness of capitalist banking's creation of money through the act of bank lending'.²³ The affinity between Marxist and post-Keynesian analyses of credit money creation through bank lending is acknowledged even by leading post-Keynesian monetary theorists (theoretical differences notwithstanding).²⁴

Ingham is nevertheless right to state that Marxist and post-Keynesian monetary theories differ profoundly on the issue of money's emergence and its connection with commodity exchange. In a nutshell, the post-Keynesian view, partly developed by Ingham, claims that money emerges as an abstract unit of account, typically in the realm of credit and through the action of an extra-market authority, possibly the state. Ingham traces the theoretical roots of this approach to the German Historical School and the *Methodenstreit*, but seems unaware of its deficiencies.

The German Historical School certainly had distinctive views on money's origin. Knapp's 'chartalism' or 'nominalism', for instance, claimed that money is an arbitrary quantification of purchasing power, a quantitatively specific material claim on wealth.²⁵ This was in opposition to Menger, the chief neo-classical opponent of the Historical School, who attempted to show that money emerges spontaneously as means of exchange.²⁶ Knapp's arguments influenced Keynes who claimed that money should be theoretically understood as abstract

21 See Ingham 2004a, p. 62.

22 See, respectively, Marx 1970, p. 116; 1976b, p. 224; 1970, p. 102 and 1976b, p. 210; 1970 and 1976b.

23 See Ingham 2001, p. 316.

24 See, for instance, Lavoie and Secareccia 2001.

25 See Knapp 1924.

26 See Menger 1981 and 1892. The two approaches have been known as, respectively, the *acatallactic* and the *catallactic* theory of money's origin (see Mises 1953). I have elsewhere

unit of account for prices, debts and contractual obligations, a claim that has been noted approvingly by Ingham many times.²⁷ Keynes further claimed that money as abstract unit of account is of hoary antiquity, as proven by the ‘baked bricks’ of ancient Mesopotamia.

The influence of the German Historical School’s arguments on post-Keynesianism has been strong, especially on Wray, on whom Ingham relies greatly for his own analysis.²⁸ For Wray, ‘money in general’ appears to be credit-money, i.e. debit and credit entries that allow transactions to proceed.²⁹ This is supposed to stand in contrast to neoclassical treatments of money, which focus on the function of means of exchange and ignore the broader functioning of money.

Ingham seems unaware of better-developed antecedents of his preferred alternative approach to money. In particular, he offers no discussion of Sir James Steuart, who systematically differentiated between ‘money of account’ (an arbitrary scale of value measurement) and ‘material money’ (money in actual use).³⁰ For Steuart, ‘money of account’ functions as abstract numeraire, while ‘material money’ generates practical approximations of abstract prices.³¹ Furthermore, ‘material money’ need not have the same nomenclature as the abstract numeraire, since it is only an approximation of the ‘money of account’. And not least, the actual prices that are established by ‘material money’ need not coincide with the ideal prices that are established by the ‘money of account’.

In sum, for Steuart, money is a social convention both as abstract unit of value measurement and as means of exchange that approximates ideal prices in practice.³² In postulating the distinction between ‘money of account’ and ‘material’ money, Steuart gave theoretical form to the mythical mercantilist stories of the *macoute*, i.e. of the imaginary gold bar presumably used by the natives of West Africa to measure commodity value.

called them, respectively, the ‘money as unit of account’ and ‘money as means of exchange’ approaches, and discussed them from a Marxist standpoint (see Lapavistas 2003, ch. 6).

27 See, respectively, Keynes 1973, p. 3; Ingham 2001, p. 306, 1996, 1998, and 2004a, pp. 50–2.

28 See, respectively, Wray 1990, 1998, and 2000; Ingham 2001, pp. 308–10, and 2004a, pp. 52–6.

29 See Wray 1990, p. 13.

30 See Steuart 1995, vol. 2, iii, chs. 1, 2.

31 Ingham draws a distinction between a ‘monetary’ (‘abstract’) duck and a ‘commodity’ (concrete) duck, in any ‘duck standard’ of value (2001, p. 310). This is strongly reminiscent of Steuart and nothing more than the old *macoute* stories, without the exotic garb.

32 Marx (1970, pp. 79–81), who had a high regard for Steuart’s monetary theory, differed profoundly from him on this issue (see Itoh and Lapavistas 1999, ch. 1).

The attempt to associate money's origin with the social invention of an abstract unit of account was beset with theoretical and empirical problems for Steuart, and remains so for the post-Keynesians. Two of those are briefly discussed below and a third is more fully explored.

First, and with particular reference to post-Keynesians and Ingham, the presumed theoretical link between, on the one side, money functioning as abstract unit of account and, on the other, credit relations occurring among exchange participants, is extremely tenuous. For it is perfectly plausible to argue in theory that money would operate as an abstract numeraire in commercial transactions which have absolutely no connection with credit, and involve only the immediate exchange of equivalents. This is, after all, what Steuart had suggested. Even from Ingham's standpoint, therefore, Occam's razor ought to be applied: there is no need to bring in credit relations if the aim is to argue that money is an abstract unit of account; plain commodity exchange will do.

Along the same lines, and more significantly, functioning as unit of account is neither the only nor even the most important function of money in credit transactions. Equally fundamental to credit is the operation of money as means of payment – unless the outlandish assumption is made that all credit obligations are mutually cleared, or fresh credits are automatically extended at all times due. But if money functions as means of payment in the settlement of debts, it follows that it would automatically function as (broad) means of exchange, though not as (narrow) means of circulation. Furthermore, to function as means of payment, money must be able to preserve purchasing power, i.e. it must already function as hoard element. In short, credit transactions are complex economic phenomena that rely on the full panoply of money's economic functions and not merely the unit of account. Assigning exceptional theoretical importance to money as unit of account in credit relations is arbitrary and misleading.

Second, there is no unambiguous evidence for the historical existence of a purely abstract unit of account, despite Ingham's sweeping assertions.³³ Merely showing that the unit of account happens to be differently denominated from the means of exchange during some historical period is no such evidence. The performance of the two functions by differently denominated money during any given period is one of the commonest features of monetary exchange. What must be demonstrated is the historical existence of a money of account that did not originally function as means of exchange, i.e. of a money of account with purely ideal units, the products of human consciousness alone.

33 See Ingham 2001, p. 310; see also 2000.

In this regard, it is far from sufficient to point to the existence of societies, such as in ancient Egypt and Babylonia, which did not possess broad commodity exchange but in which money functioned as unit of account in the royal or priestly economy. For these societies certainly traded, at the very least with foreigners, and their money of account typically included standard quantities of a few products. This is apparent even in the edited volume by Wray, which boldly asserts the existence of ideal money of account in ancient Babylonia but only succeeds in showing that these units of account were quantities of silver and barley.³⁴

Finally, the hapless search for an ideal unit of account in history is premised on plain theoretical confusion, which is apparent in Steuart's argument that was summarised above. There is no doubt that the accounting system of prices is an abstract entity, which could be fully established on a sheet of paper by deploying an ideal unit of money. It is a simple exercise in economics to generate such an abstract nomenclature of price by using any number of different 'numeraires'. Moreover, in the practice of monetary exchange, the price of a specific commodity would be ideally determined in the mind of its owner prior to actual exchange. In other words, money's function as measure of value could certainly be undertaken by purely imaginary or ideal money.

Marx offered powerful insight on this issue, with a strong word of warning:

Since the expression of the value of commodities in gold is a purely ideal act, we may use purely imaginary or ideal gold to perform this operation. Every owner of commodities knows ... that it does not require the tiniest particle of real gold to give a valuation in gold of millions of pounds' worth of commodities. In its function as measure of value, money therefore serves only in an imaginary or ideal capacity. This circumstance has given rise to the wildest theories.³⁵

Innes, who is acclaimed by Ingham and the post-Keynesians as a founding father of their alternative approach to money's origin, was unduly impressed by precisely this aspect of the measure of value.³⁶ He reproduced Steuart's argument, apparently unaware of its source, with considerable enthusiasm but without the mercantilist master's sophistication. Innes claimed that:

34 See Wray 2004.

35 See Marx 1976b, pp. 189–90.

36 See Innes 1913 and 1914.

The eye has never seen, nor the hand touched a dollar. All that we can touch or see is a promise to pay or satisfy a debt due for an amount called a dollar ... The theory of the abstract standard is not so extraordinary as it first appears, and it presents no difficulty to those scientific men with whom I have discussed the theory. All our measures are the same. No one has ever seen an ounce or a foot or an hour.³⁷

Innes's statement is an exemplary instance of precisely what Marx had warned about: The ideal measurement of value by money has been turned into a 'wild' theory, namely that all money is credit money. This fallacy underpins much contemporary post-Keynesian theorising on money, including that of Ingham.

In actual monetary exchange, however, the ideal prices of commodities must become real, if commodity owners are in practice to obtain the equivalent that they have ideally calculated (and if debt holders are to receive the value that is due to them and which has not been cleared against other debt). Money undoubtedly acts as an ideal measure of value, but if exchange is to have economic content, money must also – and in practice – act as the standard of price and then as the means of exchange, thereby rendering prices real. The ideal measurement of value is only a first step in the process of exchange (including both commodities and debts) – at some point, value must also be measured in practice and then rendered into actual price.

Evidently, the transformation of ideal into actual prices has nothing to do with ideal money units, and depends entirely on actual money. In this respect, both the money stuff and the denominations of actual money are of the first importance. A given set of commodity values, for instance, might be ideally measured in gold (as mass), but would produce very different actual prices for gold, if the latter were conventionally denominated in sovereigns, francs, dollars, and so on. The actual price system would be even more different if value continued to be measured ideally in gold but the actual money comprised silver or bronze, variously denominated. The relationship between ideal and actual money casts light on the issue of the origin of money, both in logic and in history.

37 See Innes 1914, p. 56.

5 The Unit of Account and the Standard of Price

The issue hinges on the difference between money functioning as measure of value and money acting as standard of price. Marx stressed the difference (while also associating measure of value with abstract labour):

As the measure of value it [money] serves to convert the values of all the manifold commodities into prices, into imaginary quantities of gold; as the standard of price it measures those quantities of gold. The measure of value measures commodities considered as values; the standard of price measures, on the contrary, quantities of gold by a unit quantity of gold, not the value of one quantity of gold by the weight of another.³⁸

Money as the measure of value converts commodity values into prices by using the natural units that refer to its body – mass, above all. Money as the standard of price converts the body of the universal equivalent into standard units, and in this way sets the conventional money prices. For the denominations of the standard of price in any society are indeed social conventions, i.e. arbitrary quantities of the money commodity – pounds, francs, marks.

The conventional aspect of the standard of price arises partly because the state, or some other authority, can arbitrarily dictate it, as has commonly been the case throughout history. But it is also associated with the physical aspect of the money stuff as well as with the social customs that surround its use as plain commodity. Thus, salt comes in blocks that vary with production method and social custom of use; cloth is cut in standard measures that differ according to material and habits of use; cattle is counted in heads; precious metals of variable fineness and standard weight are used by different communities according to their own traditions.

The ability of the state to impose on society an arbitrary unit of the money of account rests on the socially conventional nature of the standard of price. The state gives order to the conventions surrounding the standard of price partly for reasons of its own (tax and seigniorage) and partly to lessen the inevitable frictions arising from several standards operating concurrently. This is apparent in the case of coinage, but it is not substantially different when the state chooses as standard of price a particular banknote, or an arbitrary unit of fiat money which is loosely and indirectly connected with the money commodity.

³⁸ See Marx 1976b, p. 192.

In this light, the alternative (chartalist) approach advocated by Ingham confuses the undoubted ability of the state (or another socially constituted authority) to set the standard of price with an (imaginary) ability arbitrarily to set the measure of value. The state is certainly able to create its own price numeraire, but this is because a spontaneous measure of value already exists that is conventionally denominated as the standard of price and acts as the means of exchange.

To be sure, there is a degree of abstraction involved in creating a price numeraire (by the state or another authority). But that abstraction refers exclusively to determining the standard of price and not the measure of value. Money as the measure of value is not abstract (and far less ideal) – rather, it is one commodity emerging spontaneously among the many. Adam Smith, for all the criticism to which he has been subjected in this respect, was right to refuse to adopt Steuart's theory of the abstract measure of value, despite being perfectly familiar with it.³⁹

Precisely because money is not an ideal unit of value measurement (except in general equilibrium exercises undertaken by economic theorists), Ingham's favoured approach faces insuperable difficulties when it comes to developing a cogent account of how such an ideal unit could have been devised in practice. In this respect, the theoretical current of the German Historical School offers nothing remotely comparable to Marx's dialectical analysis, or even to Menger's taut derivation of money's emergence. Innes, for instance, gives no logical account of how the putative abstract unit of value measurement could have emerged. We are left with the vague supposition that the machinery of ancient states somehow grasped the conceptual reality of value, and proceeded to devise a coherent system of prices by fixing an abstract unit of account. Suffice it to remark that classical political economy was able to perform this gigantic feat of mental abstraction only after centuries of scientific effort, and against the concrete reality of constant commensuration of commodities in capitalist markets.

Ingham, to his credit, realises Innes's weakness in this respect.⁴⁰ Thus, he searches for a clearer answer and thinks that he has found it in the numismatic work of Grierson.⁴¹ Along lines earlier explored by the German Historical School, Grierson suggested that money emerged as unit of account in *wergeld*,

39 Ingham (2004a, p. 34) is typically keen to criticise Smith.

40 See Ingham 2004b, pp. 175–83.

41 See Grierson 1977; see also Ingham 2001, p. 310, 1996, pp. 519–21, 2004a, pp. 90–3, 2004b, pp. 182–3.

that is, in the practice of making monetary compensation for social and individual 'injuries'. Grierson was led to this argument because he thought that it was impossible to render commensurate any significant number of commodities, in view of the huge number of bilateral combinations that would be generated in any such attempt. Thus, he assumed that a more plausible path toward commensuration of disparate things was actually provided by various communal assemblies that determined equivalences among a 'few' injuries for the purpose of compensation. For Grierson, the abstract unit of money was communally devised in the practice of *wergeld*.

Grierson's erudite work is not persuasive in this regard. For one thing, commodity exchange and the use of money probably preceded the practice of *wergeld* in history. More significantly, Grierson showed little appreciation of the process of value measurement in the realm of commodities, and for this reason thought of the large number and the inherent natural differences of commodities as forbidding obstacles to commensuration. But these putative weaknesses are actual strengths of the spontaneous process of commodity commensuration in the course of exchange, particularly in capitalist circulation. Large numbers of repeated bilateral transactions (premised on differences among use values) are absolutely necessary to establish relative prices as objective social norms. Such transactions also provide the necessary impetus for monopolisation of buying ability by money.

It is more likely, indeed, that the problem holds in reverse. Grierson's assumption that injuries could be brought into equivalence more easily than commodities is far from obvious, in view of the moral, familial, customary, hierarchical, ethical and other factors at play. Moreover, even a short list of injuries would generate a large number of bilateral relations that would have to be reassessed whenever new 'injuries' emerged or old ones dropped out. The task for communal assemblies in devising a consistent abstract standard of measurement, and thus compensation, would be Herculean.

In sum, therefore, a theory of 'money in general' that would be unrelated to commodity exchange is deeply unsatisfactory. Its inherent weaknesses, however, do not necessarily imply that there is a need to adopt the neo-classical approach to money, which simply inserts a convenient means of exchange into barter. The Marxist analysis that puzzled Ingham avoids these difficulties by showing that money emerges as the monopolist of buying ability.

Conclusion: Credit Money, Commodity Money and 'Money in General'

The complex issues raised in this chapter do not lend themselves to a short conclusion. But it is instructive to finish by noting some analytical implications for the relationship between commodity and credit money, believed by Ingham to constitute an intractable problem for Marxist monetary theory.

Ingham repeatedly asserts that Marx believes money to be 'essentially' a commodity, and that is why he seeks money's origin in trade.⁴² It is clear, in view of the discussion above, that this is an erroneous assertion. For Marx, money is the universal equivalent or independent form of value. There is no reason to assume that the universal equivalent is 'essentially' a commodity. On the contrary, it can take a variety of forms – commodity, fiat paper, banknotes, bank deposits, money trust accounts, and so on. The commodity form of money is certainly fundamental, not least because it is the form in which money originally emerges in commodity exchange. But none of money's forms has exclusive rights to representing money's 'essence'. Rather, in all its forms, the universal equivalent remains the monopolist of the ability to buy, this being the thread that binds its forms together.

Indeed, a far more serious problem in this respect can be found in Ingham's work.⁴³ In his effort to show that money is essentially a 'social relation', Ingham finds it necessary to denounce any suggestion that money is a 'thing'. Yet, this is misleading. Money is certainly a social relation among 'foreign' commodity owners, but it is also a thing. Social relations embodied in things are characteristic of capitalist markets, and have been analysed by Marxist theory in terms of commodity fetishism.

The thing-like aspect of money is particularly obvious in situations of economic crisis, during which a capitalist's social relations might remain completely unchanged, but bankruptcy could easily occur due to temporary lack of the money 'thing'. Much of the mystery and complexity of money arise because it is simultaneously a social relation and a thing. The particular form taken by the money 'thing', moreover, is important for money's functioning.

There are significant economic differences among the forms of money. Capitalist commodity money, for instance, inherently contains value (abstract labour). This alone shows the fallacy of Ingham's main claim, namely that there exist *generic* social relations of the system of promises to pay, which apply to all

42 See Ingham 2001, p. 316, also 1998, 2000.

43 See Ingham 1996, 2004b.

forms of money.⁴⁴ Capitalist commodity money is no-one's liability and bears no necessary relation to credit processes: it is not a promise to pay but rather the instrument of final payment. Credit money, on the other hand, is indeed a promise to pay, and this constitutes its qualitative difference from commodity money. It is plain confusion to lump together commodity and credit money as 'promises to pay'. There is a common aspect to all forms of money, but this is their unique ability to buy rather than some fictitious 'promise to pay'. To establish this result, however, it is necessary to relate money to commodities, precisely the approach that Ingham advises against.

Credit money presents no exceptional difficulties for Marxist monetary theory.⁴⁵ Money as monopolist of buying ability necessarily functions as means of payment by separating purchase from sale, thus giving rise to trade credit relations. Money also makes possible the transfer of buying power among capitalists through relations of lending. Credit relations of both types are continually generated by private capitals and proliferate in a capitalist economy. Credit money emerges in credit transactions among commercial and industrial capitals, acquires more developed forms in the operations of banks, and becomes the dominant form of money.

Capitalist credit money certainly comprises promises to pay but that is also why it differs from commodity money: financial institutions systematically create and eliminate credit money by issuing and settling promises to pay. Nevertheless, credit money remains a form of the universal equivalent, sharing in common the character of 'money in general' that is associated with the social relations of commodity exchange.

44 See Ingham 2001, p. 307, original emphasis.

45 See Lapavistas 1991, and 2000.

PART 4

The Complex Reality of Contemporary Money



Relations of Power and Trust in Contemporary Finance*

1 Introduction¹

The debate on money and finance in issue 14.1 of *Historical Materialism* (2006) is evidence of renewed interest in these topics within Anglophone Marxist political economy. Contributing to it, this chapter examines relations of power and trust as components of contemporary money and finance. More broadly, the chapter considers the interplay of economic and non-economic relations in the field of money and finance.²

This is an important subject for political economy because of its social and political implications. Some of the latter are briefly outlined in Section 2 with reference to personal finance, independent central banking and world money. It is then shown that relations of power and trust permeate the monetary and financial mechanisms of the capitalist economy, providing support for accumulation. Class relations of exploitation and oppression lurk beneath the technical façade of contemporary money and finance.

It is important to note that mainstream economics has recently become adept at analysing relations previously considered non-economic, such as trust, reciprocity and credibility. For mainstream economists, these are impersonal and ahistorical concepts that could be used to improve social well-being as well as influence economic policy, especially in the realm of money and finance. A similar approach could be found among many non-governmental organisations (NGOs) despite their frequent criticisms of contemporary finance, especially in relation to globalisation. Thus, there is added urgency to demonstrating the class content of non-economic relations characteristic of money and finance, particularly of power and trust.

It hardly needs stating that Marxist political economy has long been aware of the importance of political power in the operations of the capitalist finan-

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1 Thanks are due to S. Aybar for comments on the manuscript. All errors are my responsibility.

2 Thus, it echoes Lapavitsas 2003 – which sparked the debate.

cial system.³ After all, only free-market ideologues would doubt that political power and other non-economic relations offer crucial services to capitalist accumulation. However, analysis in this chapter is at a higher level of abstraction than that of interventions by governments or international organisations in the workings of domestic and international finance. The focus is on first principles, that is, on the relations of power and trust embedded in the rudiments of capitalist money and credit. Specifically, it is shown that, in capitalist society, money represents absolute buying power – hence affords to its holder economic and social power – while credit represents trust that is socialised on a capitalist basis.

Put differently, the chapter focuses on molecular components of class relations buried within capitalist monetary and financial mechanisms. Thus, Section 4 demonstrates monetary and social mechanisms through which relations of power and trust are placed at the service of capitalist accumulation. These relations of power and trust underpin the key aspects of contemporary finance analysed in Section 2. The same relations also permeate the interventions in money and finance by national states or international organisations. The point is important for the Marxist – and even the merely radical – critique of contemporary money and finance.

2 Contemporary Money and Finance: The Importance of Power and Trust

During the last three decades, the realm of money and finance has expanded and become more international in its operations. It is superfluous here to recount data on international capital flows, volume of daily foreign exchange transactions, growth of financial derivatives, spread of stock markets, and so on. Taking the expansion of money and finance for granted, it is more important to outline its social and political significance as well as its far-reaching economic implications. Money and finance differ from other fields of capitalist activity because, first, they are highly fluid and, second, they have immediate non-economic aspects. It is evident, for instance, that access to money confers power and sustains hierarchy across capitalist society. Similarly, even casual observation shows that the mechanisms of credit facilitate social transfor-

3 As in Gowan's (1999) analysis of US political power behind the contemporary 'Dollar-Wall Street Regime'.

mation by affording command over resources. Finally, bourgeois elections and politics in general are tightly interwoven with money and finance.

The evolution of money and finance during the last three decades throws light on social relations at the heart of contemporary capitalism. Power at the disposal of the capitalist class has increased, while the mobilisation of trust and reciprocal obligation across society has intensified. The social standing of workers and their confidence in participating in social life, meanwhile, have suffered. To get a clearer perspective on these developments, it is important to examine more closely three important aspects of contemporary money and finance, namely personal finance, independent central banking, and world money.

2.1 *Growth of Personal Finance*

Since the mid-1970s, credit (and finance, more generally) has penetrated deeply into the realm of personal income. Casual observation alone indicates that retail banking has expanded, including loans for private consumption and mortgage lending for working-class housing. This has not been matched by an equivalent expansion of the role of credit in the realm of capitalist production. Industrial investment in developed countries is currently financed mostly through retained profits, even for Japanese industry that used to rely very heavily on bank loans during the initial postwar decades.⁴

On a net basis (that is, subtracting financial assets of corporations from their financial liabilities), industrial investment in the developed world makes little use of funding from banks, other financial institutions and the stock market. The engagement of corporations in the stock market has certainly grown, but this is to finance mergers and acquisitions rather than industrial investment. Corporations also undertake financial activities themselves, including through provision of credit and direct involvement in the trading of financial derivatives.

The social implications of these developments are profound. Housing and personal finance increases the proportion of personal income paid to financial institutions as interest and commissions. Substantial parts of aggregate money income are regularly and directly transformed into loanable capital. Moreover, the modest houses of workers are transformed into financial assets. In the USA, Britain, Japan, and elsewhere, working-class housing has participated

4 There is a significant amount of mainstream empirical work on this issue, including Mayer 1987, and Corbett and Jenkinson 1997.

in real-estate bubbles, previously the domain of commercial property and expensive real estate.

Easy availability of consumer credit facilitates the immediate acquisition of material goods against pledges of future money income, thus reversing the practice of saving out of current income to acquire goods in the future. The ability to obtain personal credit depends on money income, assets held, track record of repayment, as well as a host of tacit social factors, such as place of abode, ethnic and racial origin, gender and kinship. Thus, access to personal credit becomes a measure of the social trust and power invested in the recipient. On the other hand, when personal credit dries up, workers face loss of material goods, restricted mobility, and collapse of social status.

It is important to note that both financial institutions and capitalist corporations (rather than a narrow layer of rentiers) obtain interest out of individual money income and assets. The financial institutions involved are far wider than banks and include pension funds, investment funds, and insurance companies which mobilise small sums of idle money across society. The transformation of money income and assets into interest and loanable capital is apparent in the financial bubbles (stock-market and real-estate) that have punctuated the last three decades. The losers have typically included small buyers, whose losses represented once-for-all transfers of money assets to financial, industrial and commercial institutions.

2.2 *Central Bank Independence*

During the same period, the vestigial links between money in use and commodity money (gold) have been severed. Contemporary money is overwhelmingly credit money that rests on central-bank money (banknotes and deposits) which is backed primarily by state instruments of debt. The leading central banks continue to hold vast hoards of gold, but the money commodity does not exercise a regular controlling influence on the value of central banknotes and deposits. Freed from the need to guard their gold reserves, central banks now possess fuller discretion in making loans, issuing their own money and, above all, determining interest rates. Consequently, stability of the value of central-bank money depends on two factors: first, on the central bank's management of aggregate credit flows and, second, on central-bank money being legal tender for the settlement of commercial and other debts.

The central bank's monopoly over legal tender is a fundamental component of contemporary finance. Modern central-bank money (banknotes and deposits) functions as obligatory means of payment, backed mostly by state debt. Consequently, it has clear aspects of fiat money, that is, of money with arbitrary circulation backed by the power of the state. Nevertheless, modern central-

bank money is still issued by a bank, in other words, it is fiat money that has mutated out of credit money. Thus, it bears little resemblance to the crude fiat monies of the past that were issued directly from the state's printing presses, such as French *Assignats* or Prussian paper *Thalers*. The management of modern fiat money draws on the social power and trust invested in the central bank.

There are economic, social, political and customary aspects to the central bank managing its own money as well as the credit money created by other institutions of the financial system. To perform its managing function, the central bank must possess reliable information on the flows of credit across the economy, on the overall rhythm of accumulation, and on the habitual and customary patterns of spending and debt settlement in the country. It must then use this information to balance the interests of industrialists, merchants and financiers affected by its decisions. All sections of the capitalist class apply moral pressure onto the central bank through both public and private channels. The central bank must also weigh the social implications of changes in the volumes of credit, especially in housing and personal consumption. Finally, it is obliged to consider the broad political implications of its actions.

Central-bank management of modern credit money is a continuously evolving process. The global inflationary crises of the 1970s and 1980s, for instance, represented failure to defend the value of credit money. That failure had social and political implications, at the very least because rapid inflation meant losses for creditors and because wage bargaining was disrupted as workers attempted to obtain compensating increases in money wages. It is a sign of the ability of the capitalist class to learn from experience that 'independent central banking' became the byword for credit money management in the 1990s.⁵

'Central-bank independence' is a convenient legal fiction that separates the bourgeois electoral process from the juggling of economic and social factors undertaken by the central bank. It allows the central bank to issue its own money and influence interest rates without submitting even to the feeble scrutiny of parliamentary elections. Credit decisions that have profound consequences across society appear to be taken by disinterested experts on objective 'technical' grounds. Meanwhile, the various sections of the capitalist class continue to apply pressure on the central bank in a thousand furtive ways. The social trust invested in the central bank is thus mobilised in the interests of capital, while society is prevented from exercising even electoral accountability over the use of this trust.

5 The satisfaction of arriving at 'independent central banking' is expressed very clearly by Goodhart 1994 and 1995, the doyen of British central banking.

The pre-eminence of central banks in contemporary finance has few precedents in the history of capitalism. Their dominance over the credit system derives partly from the extraordinary monopoly they enjoy over legal tender. Thus, central banks systematically place the power of money – buttressed by the power of the state – at the service of capital. This development represents a paradox for neoliberalism, the prevalent economic ideology of the last three decades.

Neoliberal policy has preached the virtues of free markets, but on money it has opted for completely the opposite course. Far from allowing free creation of credit money by competing financial institutions, neoliberal policymakers have strengthened the central bank's monopoly over legal tender. This is presented as a socially beneficial step because, presumably, the central bank is an omniscient and benevolent monopolist of money. In practice, the central bank has been given room to use money's power in the interests of capital in general, with scant regard for the bourgeois electoral process.

2.3 *World Money*

Finance has also become increasingly international during the last three decades, sustained by new technologies as well as by the policy of financial liberalisation. The internationalisation of finance is closely related to world money, that is, to the key function of money at the international level. World money provides a necessary means of payment for settlement of commercial obligations and for transfer of value among nations and corporations in the world market.⁶ But the world market is not simply a larger version of the domestic market.

The domestic market is buttressed by (and gives rise to) customs and habitual practices that have (or acquire) a national character. It is supported by a legal framework and enforcement practices that draw on institutions and traditions that have evolved in the course of a nation-state's history. Similarly, the customary and legal practices of the domestic market reflect the historical evolution of class struggle and the homogenising role of state power in particular countries. These complex factors – customary, hierarchical, historical and political – provide vital support for the buying and paying ability of money domestically. Moreover, the mechanisms of the domestic credit system give further support to domestic money, particularly when central-bank money receives the imprimatur of the state in the form of legal tender.

⁶ Marx 1976b, pp. 240–4.

The world market is different. It certainly contains processes of exchange that make money necessary for purchases and payments among trading participants. It also gives rise to customs and practices of exchange that sustain the world use of money. However, world trading customs and practices do not necessarily coincide with domestic ones, thus giving rise to conflicts of probity and reliability, as well as of means and methods of payment. The laws and practices that underpin the operations of the world market, moreover, depend on compromises among several states. There is no lawmaker and enforcer in the world market with a position analogous to that of the national state in the domestic market.

Equally, no state has the power to impose a single legal tender across the world market, and nor is there a structured world credit system capable of creating universal credit money. The international financial system is an anarchic whole of flows, assets and markets; it constantly creates credit money but lacks the coherent structure necessary for the emergence of dominant credit money analogous to central-bank money in the domestic context. Consequently, the use of particular monies in the world market is subject to political and military interaction among states. World money, finally, is the 'sinews of war', the means of pursuing conflicts among states by financing armies, bribing allies, or paying off enemies. A nation-state's position in the hierarchy of world power improves dramatically when its money is used by other states as means of hoarding and payment, or as unit of account.

The typical form of world money in the history of capitalism has been commodity money – gold and silver. Commodity world money has immediate implications for national currencies, since it is a common anchor that fixes exchange rates – provided that national monies convert into it. Exchange-rate fluctuations automatically induce transfers of gold or silver across national borders, which, in turn, prevent exchange rates from rising or falling beyond narrow limits. The value of the money commodity, moreover, functions as an external stabilising influence on the price systems of countries participating in the world market. Flows of metallic world money have historically provided an automatic order to the world market – albeit at the cost of major financial, commercial and industrial crises.

The link between gold and world money was first loosened when Britain suspended convertibility of sterling into gold at the outbreak of the First World War. At that moment, it became necessary to apply a degree of conscious management to world money, but its management during the interwar years was a catastrophic failure. The Bretton Woods agreement of 1944 dealt with the problem by imposing convertibility of the dollar into gold at \$35 to the ounce, though only for official transactions. The link between dollar and gold provided

an anchor for the international monetary system, while also fixing exchange rates. Critical to the agreement was a battery of controls over international flows of money capital, as well as the availability of a large hoard of gold held by the USA. By this token, the collapse of the Bretton Woods agreement in 1973 marginalised gold, ushered in floating exchange rates, and posed the problem of world money with renewed urgency.

Since the 1970s, the world market has been struggling to generate world money that would be able to discharge its functions adequately. Gradually, the US dollar has emerged as quasi-world money, representing an unprecedented development in the history of capitalism. Dollars are created through credit processes largely specific to the US economy, and their domestic acceptability is assured by being legal tender backed by US government instruments of debt. In the international arena, the acceptability of the dollar rests on regular practices that have both economic and non-economic aspects. These practices include using the dollar as unit of account in key global markets, such as the market for oil; as means of payment among nations; as means of transferring official funds, especially in times of crisis; as unit of account and means of payment among financial institutions. As a result, dollar reserves are customarily held by nation-states, but also by international corporations operating beyond the boundaries of individual states.

The role of the US dollar as quasi-world money reveals the importance of relations of power and trust within the world market. The international use of the dollar is partly associated with the preponderant role of the USA in the world economy. The USA, for instance, is a large importer of oil and the largest (gross) exporter of loanable money capital. Similarly, most of the large transnational corporations are domiciled in the USA, while US financial institutions play a dominant role in the international financial markets. At the same time, the world role of the dollar draws directly on the political and military hegemony of the US, sharply accentuated since the collapse of the Eastern bloc. The extent to which the world role of the dollar depends on the active exercise of power by the US state was demonstrated in the course of the Asian crisis of 1997–8. When Japan offered crisis finance to Asian countries, also proposing the setting up of a separate fund to manage regional financial flows, the USA rapidly scotched the proposal and forced use of the dollar in dealing with the crisis.

The benefits to the USA from the world role of the dollar are easy to see. First, the country can maintain a structural deficit in its balance of trade, in effect buying commodities from foreigners with US legal tender. Second, it can borrow from the rest of the world by promising to repay in money generated by its own central bank at the stroke of a pen. Third, since it can create quasi-

world money at will, the USA gains considerable freedom in pursuing monetary policy domestically.

The benefits to other countries, meanwhile, are far more difficult to ascertain. Obviously – and trivially – the existence of world money is beneficial to all market participants since payments could be made and value transferred smoothly and reliably. But as far as the dollar is concerned, these benefits are created by the very practice of using it, in other words, from the actions of the foreigners themselves. Even more strongly, the resultant necessity of accumulating dollar reserves has had the effect of tying foreigners to using the dollar as world money. The larger the hoards of dollars and dollar-denominated debt instruments held by foreign institutions and corporations, the stronger the compulsion to maintain the international role and the value of the dollar. For, should the ‘world’ function of the dollar be damaged, the losers will certainly include the nations that have made loans to the USA and hold large amounts of dollars.

The dollar as quasi-world money, therefore, is deeply contradictory. It purports to be a universal means of payment and hoarding but bears no necessary relation to produced value. It aims to be a global promise to pay, but remains created by national credit mechanisms. It draws on the economic forces, customs and legal practices of the world market, but cannot secure complete monopoly over its global role by excluding other monies from world use. It relies on state power, but it is not global legal tender. It aims to be an impersonal servant of all world-market participants, but it is also inherently biased in favour of the hegemonic state. The hegemon, moreover, is the largest (net) borrower in the world, and has a huge and persistent trade deficit.

Managing the dollar as quasi-world money, therefore, requires systematic use of political and economic power. In the 1980s, dollar management involved *ad hoc* gatherings of representatives of the leading capitalist states, as in the Louvre and Plaza Accords. Things changed in the 1990s as the hegemonic power of the USA increased significantly. The input of lesser capitalist powers to managing the dollar as world money became more informal and indirect. At the same time, complex economic and political mechanisms evolved to facilitate world-money management, including regulatory and prudential intervention over international banks and financial markets. The Bank of International Settlements is important in this respect, collecting information and enforcing regularity on the practices of international banks across financial markets. The International Monetary Fund is even more important, making funds available and influencing the pattern of accumulation of entire countries. Nevertheless, success has been elusive, and certainly not comparable to that of national ruling classes in managing domestic money.

Repeated financial crises have accompanied the rise of the dollar as quasi-world money. They are typically associated with expanding flows of loanable money capital that currently dwarf international flows of commodities. By the same token, exchange-rate instability has assumed historically unprecedented dimensions. Developing countries that attempt to maintain a degree of stability in their exchange rates by shadowing the dollar, while also allowing for free movement of loanable money capital across their borders, have been subjected to major crises – several Asian countries, Turkey and Argentina most recently. Typically, the lack of relative modest sums of world money catapults developing countries into turmoil.

At the same time, the mechanisms of dollar management have had more success at protecting the USA and much of the developed world from monetary and financial turmoil, with the critical exception of Japan. Within the US circles of economic ideology and policy-making, the view has gradually begun to emerge that profound economic instability is a thing of the past, an attitude that is strangely reminiscent of Keynesian policy-making confidence in the 1960s.

Further insight into these complex developments could be gained by considering closely the place of power and trust in the monetary and financial system. For that, however, it would first be necessary to consider the broader issue of the interconnection between the economic and the non-economic aspects of the capitalist economy.

3 **Analysing the Economic and the Non-Economic Aspects of the Capitalist Economy**

Economic and non-economic relations interact closely in the realm of contemporary money and finance. Relations of power and trust permeate the monetary and financial realm with immediate political and ideological implications. For those opposed to capitalism, there is an urgent need theoretically to analyse these relations. The need to engage theoretically has been exacerbated by developments within mainstream economics during the last three decades.⁷

Without abandoning its neoclassical core, mainstream economics has accrued fresh capacity to analyse phenomena and practices that, in an earlier era, were considered the province of other social sciences, such as sociology.⁸

7 See Fine, who views this transformation as a revolution in social science (1997 and 1999).

8 The concept of information asymmetry has been very important in this respect, providing

Analytical focus has turned increasingly on the institutions that surround markets – economic, social, political, and even religious.⁹

In particular, mainstream economics has focused closely on social norms, customary practices and non-market bonds between market participants. These relations are often captured with the catchall term ‘social capital’. This is a flawed concept, since capital is an inherently economic term that entails self-motion and self-replenishment of stocks, hardly applicable to non-economic relations.¹⁰ Nevertheless, it has allowed mainstream economics to move aggressively into the field of non-economic relations, in open collaboration with conservative economic sociology.

Marxist political economy has been slow to react to these developments in the mainstream. The tardiness of response probably owes something to the very kernel of historical materialism, above all, the Marxist distinction of ‘base’ and ‘superstructure’. For Marx, as is well-known, some social relations are more important than others for the evolution of society, and ought to be accorded special analytical status.¹¹ Thus, the economy is at the ‘base’ of society, setting the tone for non-economic relations of the ‘superstructure’. Within the economy, relations of production dominate those of exchange and distribution, and take analytical precedence.

This is a decisive insight, but the course of interaction between ‘base’ and ‘superstructure’ is far from clear within Marxist theory. It is certain, however, that Marx’s own economic analysis brims with references to laws and their enforcement, political struggle, historical events and traditional practices among different peoples. Whatever Marx meant by the distinction between ‘base’ and ‘superstructure’, he did not balk at incorporating a host of broad non-economic factors in analysis of the deeper economic core of capital. The remarkable explanatory power of *Capital* derives from constant blending of abstract economic analysis with discussion of historical, traditional, customary, political and broadly social aspects of capitalist and pre-capitalist societies. This is evident, for instance, in Marx’s analysis of the legal, customary, political and historical aspects of the length of the working day and of the ‘General Law of Capitalist Accumulation’.¹²

fresh scope for analysis of market failure and state intervention (see, for instance, Stiglitz 1993).

9 As in the work of North 1981, and 1990.

10 See Fine 2001, and Fine and Lapavitsas 2004.

11 Marx 1970, pp. 20–1.

12 Marx 1976b, chs. 10 and 25.

For Marx, the process of capitalist accumulation brings together production, circulation, and distribution, while possessing its own internal logic and motives, summed in the self-expansion of value. Accumulation provides natural theoretical terrain for analysis of the interplay of economic and non-economic relations, without ignoring the historically specific, capitalist nature of the latter. Nonetheless, the process of accumulation is not a guide to all economic relations in capitalist society, and certainly not to all non-economic relations. The expenditure of workers' income, for instance, is only indirectly connected to capitalist accumulation. More significantly, the various spheres of the non-economic – politics, ideology, religion, culture, and so on – have their own internal structure and dynamics that are irreducible to the logic and motives of capitalist accumulation.

In this spirit, it has been elsewhere suggested that non-economic relations exist which are integral to capitalist accumulation, such as power exercised by capitalists over workers at the point of production.¹³ These are distinguished from non-economic relations generated beyond the sphere of the economy but placed at the service of capital, such as familial relations characteristic of the reproduction of labour power. This distinction has nothing to do with vulgar Marxism, nor does it equate economic relations with market relations.¹⁴

Thus, the deeper economic motion of capital involves non-economic relations, including social customs and norms. The discipline and the co-ordination of workers at the point of production, for instance, are certainly economic relations, but rely on historically evolved habits of work. Moreover, discipline and co-ordination are co-extensive with capitalist power, which has class determinants and leads to exploitation. At the same time, non-economic relations that are originally unrelated to the immediate realm of capital, could become marshalled by the latter. There is, for example, nothing inherently capitalist to familial love and reciprocity, despite both being subordinated to the reproduction of labour power and thus acquiring a capitalist aspect.

With this distinction in mind, it is proposed here that money and credit represent relations of power and trust, partly arising through market processes, partly generated outside the economy, which are subordinated to capitalist profit making.¹⁵ More broadly, the institutions and processes of money and credit assign a class aspect to power and trust across capitalist society. Mone-

13 Lapavitsas 2003, p. 3.

14 Both are dangers that concern Itoh in his contribution to this symposium.

15 Lapavitsas 2003; see also next section.

tary and credit mechanisms systematically place power and trust at the service of capitalist accumulation.

In his informative contribution to this symposium, Dymski interprets this argument as the reduction of money and credit to mere relations of capitalist accumulation. He advocates a broader 'heterodox' approach to money and credit that draws on fundamental Marxist analysis of capital, while placing it on an equal footing with other radical approaches to the capitalist economy. To support his view, Dymski points, on the one hand, to the importance of money as the social means of dealing with uncertainty and, on the other, to the weight of personal finance in contemporary capitalism, including savings institutions.

Dymski's argument, despite its insights, is ultimately unpersuasive. To take capitalist accumulation as the analytical point of departure is not to reduce all social processes to exploitation. Nor is it a barrier to analysing money and credit in fields that are not directly connected to capitalist accumulation. Rather, capitalist accumulation provides a compass through the maze of economic and non-economic relations that comprise the field of money and credit. The class nature of capitalist society is kept at the forefront, even when exploitative and oppressive class relations are refracted through money and credit.

Furthermore, while it is vital for 'heterodox' approaches to money and finance to interact, not 'all points of entry' into 'heterodoxy' have equal validity, nor could they naturally supplement each other, as Dymski appears to suggest. For Marxist political economy, the fundamental interaction between capital and labour sheds a particular light on all aspects of the economy, including money and finance. The theory of exploitation is not a mental exercise that could be left aside when money and finance, or other concrete economic issues, are broached. Without constant reference to class exploitation and oppression, Marxist political economy would be reduced to a collection of more or less interesting observations about capitalism.

Much the same could be said about Dymski's assessment of the three levels of theoretical research advocated by the Uno current of Japanese Marxism. Dymski assumes that the first level, that is, abstract research into the fundamental motion of capital, could be 'walled off' from the subsequent two levels of, respectively, historical periodisation and empirical study of particular countries. But this cannot be right. Without the first level of abstract research, Uno-type analyses at the other two levels would be cast adrift in a sea of generalities. Nevertheless, and this should be stated in view of Itoh's remarks on Dymski in this symposium, there is a certain tension inherent to Uno-type analysis. While the analytical value of distinguishing among the three levels of research is clear,

the way in which theory could shift between levels is not. Precisely this tension allows Dymski to assert that the first level of analysis could be ‘walled off’ from the others.

In this light, the following two specific claims are made in this chapter with regard to money and credit.¹⁶ The first is that money is a spontaneous product of exchange relations representing absolute ability to buy, the latter lying at the root of money’s broader economic and social power. The second is that the capitalist credit system comprises a pyramid-like structure of institutions, markets and assets that emerge spontaneously on the basis of capitalist accumulation and embody trust. The credit system, furthermore, transforms trust from a private and subjective into a social and objective relationship, which is placed at the service of capital. Both claims have roots in Uno-type analysis, but are developed here to include the social constituents of money’s power and the transformation of trust within the mechanisms of credit, as is shown in the following section.¹⁷

4 The Exceptional Role of Power and Trust in the Realm of Money and Credit

4.1 *The Roots of Money’s Economic and Social Power*

The role of money in the exchange process in general and in the capitalist economy in particular is one of the most difficult problems in economic theory. Within neoclassical economics, money is typically seen as means of exchange that emerges out of direct commodity exchange.¹⁸ This approach arbitrarily privileges one of money’s functions (means of exchange) and creates an abstract model of barter that bears little relation to the historical and anthropological evidence on direct commodity exchange. Moreover, its methodological individualism prevents insight into the social underpinnings of both markets and money.

An alternative approach, with old roots but currently associated with post-Keynesianism, views money as abstract unit of account integral to contracts and credit transactions. Typically, it treats money as the creation of the state – or some other socially constituted authority – independently of the exchange

16 Fully discussed in Lapavistas 2003.

17 Elements of this approach can be found in Itoh and Lapavistas 1999, and a fuller analysis in Lapavistas 2003.

18 Including the Austrian tradition, led by Menger 1892.

process.¹⁹ Dymski's view of money as a social means of dealing with uncertainty is sympathetic to this approach.

Despite its critical outlook with respect to mainstream economics, on this issue post-Keynesianism is the mirror image of neoclassicism, since it arbitrarily privileges another of money's functions, that is, unit of account. While neoclassicism treats money as mere means of exchange, a 'veil' over real economic processes, the post-Keynesian alternative treats money as part of the fundamental human interaction with nature. The neoclassical caricature of direct exchange among 'primitives' is rightly rejected, only to be replaced by obscure tales of abstract units of account invented by ancient state officials, or by merchants engaging in complex credit transactions.²⁰

Marx's analysis of the universal equivalent offers a path to money that is free of those weaknesses, especially when interpreted along lines originally suggested by the Uno school.²¹ In a nutshell, the universal equivalent represents absolute ability to buy that emerges spontaneously and necessarily out of commodity exchange relations. The essence of money is monopoly over direct exchangeability among commodities. None of money's functions dominates the rest, but all flow from money's essence.

This analysis can be further developed by focusing on the social relations encapsulated by money, particularly the social customs and norms that surround money's emergence and use.²² Money's ability to buy rests on the 'foreign-ness' of commodity owners from each other, that is, on the weak influence on commodity owners of kinship, hierarchy, religion, and so on. Money is the social bond of 'foreigners', the *nexus rerum* holding commodity owners together in the market and beyond. However, money also (and necessarily) relies on customs and norms that prevail among commodity owners with regard to entering the market and operating within it.

At the very least, money relies on the customary and institutional exclusion of violence that could easily break out among commodity owners. Moreover, the use of money is itself a social norm: money's ability to buy is socially established because commodity owners offer their commodities for money in the expectation that others will also do so. The regular practice of exchanging commodities for money validates the expectations of commodity owners. The customary and norm-like aspect of money is present in all its forms, including commodity money, such as gold. But it is fundamental to contemporary forms

19 Recent major contributions are Wray 2004 and Ingham 2004b.

20 See Lapavitsas 2005b.

21 See, for instance, Itoh 1976.

22 See Lapavitsas 2003, ch. 3; and Lapavitsas 2005b.

of credit money that do not contain value and whose acceptability rests on economic and social arrangements.

Miyazawa, who is sympathetic to Uno-type analysis, has noted the novelty of this approach – even in terms of the Uno tradition – in his contribution to this symposium. He proposes to extend it in terms of a putative link between money and the physical properties of commodities. According to Miyazawa, when commodity owners engage in exchange, they must keep some commodities in reserve to deal with problems of timing and incompatibility of wants. Money is the commodity most suitable for keeping in reserve because of its physical properties, especially its durability.

However, Miyazawa must then deal with a further logical problem, namely if a commodity is to be kept in reserve (or as hoard element) it must have already been accepted as a more general representation of wealth than other commodities. Marx argued that commodity money is '*the material symbol of physical wealth ... the compendium of social wealth*'.²³ In advanced capitalism, several commodities can act as partial representatives of wealth – cars, boats, planes, palatial houses and other fripperies of the rich – while only money is the general representative of social wealth. The ability of money to represent wealth more adequately than other commodities is due to its monopoly over buying power, that is, to its ability to represent value. What ultimately needs explaining, therefore, is money's unique ability to buy, for which its physical properties are of secondary importance.

Money's monopoly over the ability to buy is fundamental to analysing its broader economic and social role in capitalist society, as well as the variety of meanings and representations attached to it. Money becomes capital, and supplies the motive as well as a key stage of the circular movement of capital.²⁴ Money's ability to buy is appropriated by capital, which subsequently turns money into both the signal and the means for transferring resources systematically across the capitalist economy. Money is, thus, the original form of capitalist income and the means of obtaining use values for workers and others. In a capitalist economy, money allows both corporations and individuals to make, and to put into effect, plans about the future. In short, money is the organiser of the capitalist economy.

Money certainly functions as means of dealing with uncertainty in a capitalist economy, but this is primarily due to the economy's capitalist character. The market processes that permeate the capitalist economy are partly anarchic

23 Marx 1970, p. 124, original emphasis.

24 Marx 1976b, ch. 4.

and partly unconsciously organised through money. Thus, money allows positions to be taken with regard to the future, especially in the field of capitalist investment. But money's functioning in this respect is not uniformly beneficial to society, and could induce fresh uncertainty. Unpredictable shifts of money across the economy – especially if a 'monied estate' of financiers has come into being – constitute a social source of uncertainty. This uncertainty is a proper object of analysis by social science, something that cannot be easily said about the unhistorical uncertainty of the 'unknowable' future, favoured by Dymski.

Moreover, money's monopoly over the ability to buy, and hence its command over resources, afford to its holders broader social and political power, which capital finds ready-made across society. Money buys an education and transfers privilege directly, thus allowing access into different social groups and creating social hierarchies, directly or through marriage. Money also plays a critical role in the bourgeois electoral process and the exercise of political power. Its social pervasiveness gives to money a variety of meanings and representations, including of human sentiments. Thus, money attaches the essence of exchange relations to a huge range of human actions – it lends a commodity aspect to things and activities that are inherently unrelated to markets and commodities.

Equally, however, money elicits the reaction of individuals, social groups and entire social classes that seek to negate its power and to subvert the commercial ethic. The proliferation of Local Exchange Trading Systems (LETS) during the last two decades is an instance of this spontaneous reaction within capitalist society. Put summarily, LETS are exchange networks for goods and services that exclude official money in an attempt to do away with exploitation and pecuniary motives in communal life. Along similar lines, during the first half of the nineteenth century, the utopian socialist Owen and the anarchist-socialist Proudhon advocated replacing official money with 'labour money' denominated in hours of labour. 'Labour money', presumably, would have prevented exploitation, broken the spell of money over economic activity, and facilitated communal solidarity.

Marx rejected these ideas, since exploitation derives from class relations that cannot be transformed simply through the introduction of a different form of money.²⁵ Money might be the organiser of the capitalist economy, but it remains a mere product of market relations, an outcome of the give-and-take among commodity owners. For a true transformation of society, therefore, capitalist relations of production and exchange must be altered, including

25 See Marx 1976a.

the abolition of capitalist ownership and control over means of production. Still, the persistence of attempts to devise non-exploitative 'communal' monies is not accidental. Such schemes signify the depth of social resistance to the deleterious effect of money on social life, though they typically remain unaware of the deeper sources of money's economic and social power.

4.2 *Credit as Socialised Trust*

Credit also incorporates non-economic relations but of a different order of complexity to money. To analyse credit relations, it is important first to emphasise that Marxist political economy proposes a monetary theory of credit. The existence of money is a precondition for capitalist credit, and monetary relations form the bedrock of credit relations. Specifically, money is necessary as a unit of account in credit transactions, as the means of payment when credit balances have to be settled, and as the means of storing the capacity to settle credit obligations. For Marx, the role of money as foundation of credit is hidden in the normal course of accumulation but emerges sharply during crises, when capitalists must possess money to settle debts.²⁶

Trust is inherent to credit transactions, since credit stands for advancing value and receiving an equivalent at a later point in time.²⁷ This holds for both trade credit, that is, the advance of commodities against promises to pay, and banking (or monetary) credit, that is, the advance of money against promises to pay. It is profoundly difficult for capitalists to part with value without immediately receiving an equivalent, since the very motive of capitalist activity is the expansion of value. Consequently, the trust that is necessary for capitalist credit must rest on elaborate mechanisms of customary, legal and institutional practice. These mechanisms sustain trust in the ability of the borrower to repay in two related but separate ways.

First, credit institutions systematically collect and assess information regarding the borrower's economic activities, thus functioning as repositories of economic knowledge for the entire capitalist economy. Second, credit insti-

²⁶ Marx 1976b, p. 146.

²⁷ Finance is broader than credit, as Itoh observes in his contribution to this debate. Financial relations include, for instance, stock-market transactions involving property in capital (equity) rather than the advance of value against a promise of repayment (credit). Therefore, the basis of trust in stock-market transactions is different, though still heavily influenced by the credit system. This is apparent in two respects: first, the rate of interest is a benchmark for equity prices and, second, stock-market operations rely on mobilisation of loanable money capital, partly through the credit system. Be that as it may, Marxist political economy lacks developed treatments of the relationship between equity and credit.

tutions also gather and evaluate information regarding the borrower's political connections, social position, familial links and other social characteristics, since these could guarantee repayment even if the borrower's economic activities failed. Thus, credit institutions are also a repository of knowledge regarding social connections that reach to the core of the capitalist class.

However, the remarkable aspect of the mechanisms of the credit system is that in addition to collecting information necessary for trust, they also transform that very trust from a subjective and private into an objective and social relationship.²⁸ This transformation lends to relations of trust a distinctly capitalist character and places them at the service of capitalist accumulation, particularly in mature capitalism.

Trade credit depends on trust among individual capitalist enterprises that is subjective and private, since such trust draws on the knowledge that enterprises would have accumulated about each other in the course of their commercial relations. Banking credit, on the other hand, relies on trust between banks and enterprises which is less subjective and private, since banks lend to and borrow from large numbers of enterprises. Trust in a bank's deposits, on the other hand, depends on the quality of the loans made by the bank, in other words, on the quality of the bank's assessment of a broad range of enterprises. Hence it is more impersonal and objective than trust among capitalist trade creditors.

Trust among banks, which is vital to the money market, is even less subjective and personal. In the money market, banks regularly lend to each other, giving rise to the market rate of interest and providing coherence to the credit system as a whole. Money-market trust is an objective and increasingly social relation. In the money market, the assets and liabilities of banks are bundled together and traded as a single commodity, that is, as loanable money capital. The disparate strands of lending by one bank to many capitalists are thus assessed and homogenised by other banks. The objective and social aspect of money-market trust is apparent in the credit rankings accorded to banks.

Finally, trust between banks and the central bank is the most objective and social form of trust within the capitalist credit system. The central bank dominates the money market, systematically assesses the creditworthiness of other banks, and collects information about the credit system but also about the economy as a whole. A degree of aggregate rationality is integral to the central bank, even within the confines of the capitalist economy. Trust in the deposits and banknotes of the central bank, therefore, has a strong social aspect.

28 See Lapavistas 2003, ch. 4.

The social aspect of trust is immeasurably strengthened when the state gives its imprimatur to central-bank deposits and banknotes, transforming them into legal tender for discharging commercial and other debts. Thus, the extraordinary power of modern central banks derives, first, from commanding the most objective and socialised trust within the capitalist economy and, second, from possessing a monopoly over the creation of money as legal tender.

Trust organised and socialised through the credit system is placed directly at the service of capitalist accumulation. In each sector of the economy, trade credit marshals customary aspects of production and exchange, cultural aspects of probity and punctuality, as well as historically developed institutional mechanisms for discharging obligations. These complex factors are crystallised in instruments of trade indebtedness with a measurable degree of trust that pivots on the borrower's ability to repay money. Banking credit, on the other hand, transcends particular individual sectors, and brings into equivalence customs, cultural habits and institutional practices across the economy. Instruments of banking indebtedness, particularly those of the money market and the central bank, contain a general measure of trust that still pivots on the borrower's ability to repay money.

By organising trust through the credit system, the capitalist class systematically transfers resources to accumulation, equalises the rate of profit, and alters the productive capacity of the national economy. But the basis of such trust remains the ability to repay money, that is, either to generate money profits or to secure money through non-economic means. Hence, capitalist trust has a nefarious moral quality. Fraud and deception is never far from the surface, requiring continuous policing and enforcement of laws and customary practices of credit.

Dymski rightly points out in his contribution that financial relations involve not only credit transactions among capitalists but also personal finance to workers, mortgages, insurance, and so on. Far from being problematic, however, this aspect of credit shows the strength of the approach proposed here. Loanable money capital is mobilised by banks and other financial institutions across society, and is then made available to capitalists and others on the basis of banking credit. From the perspective of financial institutions, as long as repayment and interest are guaranteed, all borrowers are the same. The methods through which trust is organised and socialised could also be applied to transactions with borrowers that are neither capitalist corporations nor banks.

In personal finance – including mortgages, consumer loans, buying on tick, and so on – trust is established by assessing the life conditions of the individual from the perspective of ensuring the ability to make money repayments. These conditions include employment but also family status, friendships, club mem-

berships, and past history of credit transactions, all of which go into individual credit ratings. Trust in individuals acquires an objective and social form, but with a capitalist character that pivots on the ability to repay money.

The socialisation of trust within the credit system affects power within the capitalist class and across society. Capitalists who have privileged access to the credit system have an advantage in the battle of competition. Those who control, or could influence, the central bank possess overwhelming social power. Credit advanced to individuals, on the other hand, represents softer but equally pervasive power. Personal and mortgage credit facilitate the permeation of the realms of individual and social relations by money accounting. The social trust possessed by an individual is measured by the ability to repay money, and hence the individual's personal, familial and communal activities are evaluated in terms of monetary returns, even when these activities give rise to the monetary returns. By the same token, fluctuations in access to credit could destroy the social standing of the individual.

Seen in this light, the discussion of contemporary finance in Section 2 above takes a different aspect. Capitalist classes across the world have developed domestic mechanisms that systematically mobilise both the power of money and the trust associated with credit. The institutions and markets of the credit system, regulated and managed by the central bank, place social power and trust at the service of capitalist accumulation. But at the world level, things are very different: there is no form of money that monopolises buying ability across the world, nor are there credit mechanisms that could socialise trust internationally. The chaotic structure of the world market militates against both, despite the institutional and political transformation of world finance during the last three decades. The system of nation-states that overlaps with the world market adds further complexity to the problem. It is not surprising, therefore, that all recent major crises have emanated from world money in conjunction with world finance.

Marxist political economy has barely begun to scratch the surface of such phenomena in the world market. In this respect, the work of Bryan and Rafferty on financial internationalisation has been path-breaking.²⁹ However, their assertion in contribution to this debate that financial derivatives are a new form of world money is deeply problematic.

For Bryan and Rafferty, derivatives are money because they are able to commensurate a variety of disparate 'forms, locations and temporalities' of capital in the world market. Since they are systematically traded, derivatives

29 See Bryan 1995, and Bryan and Rafferty 1999 and 2005.

also restore to money its 'commodity form', except that this time money is not a physical commodity but capital itself traded as a commodity. Derivatives, then, are the true form of capitalist money, created at the level of the world market. Bryan and Rafferty argue, furthermore, in criticism of my work, that it is unhistorical to seek a general link between money and power, as well as one between credit and trust. They recognise the importance of trust in derivatives transactions, but claim that such trust is established capitalistically across the world market, independently of nation-states and international courts.

This analysis is not credible. To begin with, it is nowhere evident in my work that an unhistorical theory of power and trust is adopted in relation to money and credit.³⁰ On the contrary, the capitalist character of power and trust associated with money and credit has been sought from first principles.

Be that as it may, there is no doubt that the dominant form of derivatives comprises specifically financial derivatives, which are used extensively by banks and other financial institutions. Financial derivatives typically allow for the sale (or purchase) of underlying financial assets in the future, give the right to buy (or sell) underlying financial assets in the future, or even swap streams of future interest payments on underlying financial assets. They are essentially bets on the future movement of financial variables, allowing for both hedging and speculation. Their phenomenal growth is a by-product of the financial instability that has followed the collapse of Bretton Woods, inducing rapid fluctuations in the values of underlying assets, especially through interest and exchange rates.

Derivatives certainly represent commodification, but not commodification of capital in general. Rather, they stand for commodification of future property over an asset, or of the right to buy and sell an asset, or even of the right to possess future interest streams. They do not represent proper commodities, nor is there any clear sense in which they are money. Their commensurating function, stressed by Bryan and Rafferty, is nothing more than the carapace of the commodity form placed over hedging and speculative strategies involving several underlying financial assets. Derivatives have no obvious hoarding and paying functions in the world market, and they are certainly not 'the anchor of the global financial system'. Insofar as such an anchor exists today, that is the US dollar, though it is riddled with the problems discussed above.

Bryan and Rafferty are right to seek spontaneously emerging, specifically capitalist forms of money in the world economy. But they too hastily reject connections with money as produced commodity such as gold. The universal

30 Both in Lapavistas 2003 and in Itoh and Lapavistas 1999.

equivalent is the monopolist of buying ability, whether it takes the form of commodity money or credit money. The latter is indeed the capitalist form of money *par excellence* but, by the same token, financial instruments can look like money without being money. A theory of the money commodity provides a rudder to analysis of credit money, which would have stood Bryan and Rafferty in good stead in their analysis of derivatives.

Financial innovation in the world market certainly creates new forms of credit money. Money-market funds, for instance, are able to collect funds across the world and invest them in a variety of financial assets, while also giving the right to sign cheques against their liabilities. This is, indeed, a new form of international credit money that is neither immediately nor clearly related to the legal tender issued by any central bank. It is certain that the same could not be said of derivatives.

Conclusion

Developments within money and finance during the last three decades call for theoretical Marxist analysis, particularly because of their social and political implications. The role of money as organiser of the capitalist economy has been strengthened, and its social and political power increased. Credit and finance have permeated social life, while the power of central banks is greater than ever. In the world market, the search for adequate world money is punctuated by gigantic crises. Meanwhile, attempts are continually made at grassroots level to tame the social power of money and give a stronger communal aspect to credit.

The resurgence of Marxist theoretical interest in money and finance is an encouraging development in this respect. The recent debate in *Historical Materialism* stresses the importance of capitalist class relations, even when refracted through money and finance. In this chapter, in particular, it was argued that money and credit capture key social relations of markets and capitalist accumulation. Money's social and political power rests on its monopoly of the ability to buy, which capital appropriates across society and puts to use in promoting accumulation. The capitalist credit system, moreover, gives to trust an increasingly objective and social character. Trust is thus mobilised across society and is placed at the service of capitalist accumulation.

However, the customs, institutions and mechanisms that place domestic money and credit at the service of the capitalist class have limited effectiveness in the world market. The difficulties attached to marshalling the power of money across the world as well as to mobilising trust globally lie at the root of

recent international financial crises. They remain an intractable problem for contemporary capitalism, a cause of gigantic economic and social upheavals, and thus a call to action for those opposed to capitalism.

The Monetary Basis of Financialised Capitalism*

1 Monetary Features of Financialisation

A theoretical framework capable of analysing financialised capitalism would necessarily draw on the theoretical debates as well as the empirical features of financialisation, which are discussed in separate chapters of this book.¹ If the framework is to have a distinctly Marxist character, however, the first step must be to establish the monetary underpinnings of the rise of finance in recent decades. For Marxist political economy, money is an integral part of capitalist economies providing both real and theoretical foundations for finance. In dialectical terms, money is the initial category, while credit and finance derive from the further unfolding of the category of money (and capital). Marxist theory of credit and finance is inherently monetary in the sense that it rests analytically on the theory of money.²

The rise of financialised capitalism has depended on particular forms of money and monetary practices. Summarily put, there are three salient monetary features to financialised capitalism, which are further examined in this chapter.

First, the monetary terrain of financialisation has been determined by the absence of commodity money from domestic monetary transactions, including from the operations of banking. Since the early 1970s – indeed for most of the twentieth century – commodity money (gold) has been a hoard of last resort held by central banks with minimal monetary functioning in practice.³ The retreat of commodity money from monetary circulation has been accompanied by the complete domination of the monetary sphere by credit money. This is

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1 See Lapavistas 2013, chs. 2, 5, and 7.

2 This fundamental theoretical point is often not appreciated even by Marxists who engage in analysis of finance. The appearance in English of De Brunhoff's path-breaking work on Marx's theory of money has been important to establishing the primacy of monetary analysis (De Brunhoff 1976). However, the tendency toward credit-based theories of both money and finance has hardly gone away, as is shown below.

3 The largely passive holding of enormous gold hoards by contemporary central banks continues to be seen as an enigma by mainstream literature (see Aizenman and Inoue 2012).

money that is normally generated by private financial institutions (banks) and comprises private promises to pay backed by a variety of financial assets, both private and public. It is the dominant form of money in advanced capitalism sustained by the corresponding development of the credit system. Nevertheless, despite the dominance of credit money, the form of money has continued to evolve in the course of financialisation, leading to the emergence of electronic money which differs qualitatively from credit money.

Second, crucial to the ascendancy of private credit money has been its legal convertibility into state-backed money created by central banks. The latter is a hybrid form of money: it is partly credit, since it is created through credit mechanisms (mostly lending by the central bank to private banks); it is partly fiat, since it is inconvertible legal tender that normally rests on the state's promises to pay. This hybrid form of money is the ultimate lever of state power in the realm of finance because it allows the state to provide liquidity and to make payments at critical junctures.

Financialisation has been stamped by the conscious management of state-backed central bank money through various mechanisms of the state. Central banks have emerged as the leading public institution in the economy, typically under the façade of independence. The command exercised by states over central bank money has made sustained intervention in the field of finance possible throughout the period of financialisation. The importance of control over state-backed credit money was demonstrated in the course of the global crisis of the 2000s.

Third, and even more important for financialisation, has been the evolution of the form and the functioning of money in the world market. Gold has played a very minor role in international payments following the collapse in 1971–3 of the Bretton Woods Agreement which had stabilised exchange rates by fixing the convertibility of the US dollar into gold. Since then, commodity money has functioned as an international hoard of last resort, while the functions of international means of payment and means of hoarding have been taken over largely by the US dollar. The functioning of the dollar as quasi-world-money during the last four decades has been a development of paramount importance for the global spread of financialisation. However, the world role of the dollar has also been contradictory and destabilising, not least by shaping the international transfers of value and leading to flows of capital from poor to rich countries. The accumulation of dollar reserves has contributed to financialisation in developing countries as well as to the gigantic crisis of the 2000s.

It should also be mentioned, even if only for completeness, that money has placed its mark on the social outlook of financialised capitalism. Communal and associative bonds have shrunk; public provision has generally retreated

and money has been re-strengthened as the pivot of a broad range of social interactions. The moral and ethical development of individuals in financialised capitalism has reflected the enhanced presence of money. After all, an integral feature of financialisation has been the spreading of monetary relations in areas that were previously relatively aloof from monetary mechanisms, including health, education, transport and housing. The financialisation of individual income has enabled money to penetrate deeply into the economic, social, moral, and customary life of households in financialised capitalism.

By no means, however, has the hold of money over society been inexorably strengthened in the decades of financialisation. Often the ascendancy of money has been consciously opposed through collective action in several areas of social life. Associative forms of exchange, such as Local Exchange Trading Systems, or 'green' and 'time' money, have created networks functioning without the organising presence of ordinary, commercial money.⁴ Furthermore, technological, institutional and organisational changes across the economy have also restricted the role of money in several areas of social interaction. Services and other goods associated with the internet, for instance, have been partially detached from the power of money, at times becoming nearly free at the point of consumption, including newspapers and music. The trend of distancing some areas of individual life from the power of money has had important implications for electronic money, briefly considered below.

In sum, the monetary underpinnings of financialisation have been determined by institutional and historical changes occurring in the monetary sphere during the last four decades. To grasp the full significance of these changes, analysis should start from the fundamental questions of what money is and how it functions in capitalist economy and society. The following section undertakes a brief sojourn into first principles, focusing on Marxist monetary theory and recapping Marx's own work on money.

2 Marxist Monetary Theory in Relation to Contemporary Money

2.1 *The Significance of Marx's Monetary Writings*

Marx's monetary writings are very extensive, ranging from early discussions of philosophical and cultural aspects of money, to mature analysis of monetary phenomena of industrial capitalism, to asides on monetary events in newspaper articles and correspondence. Marx considered monetary theory

4 For an excellent discussion, particularly in the British context, see North 2006 and 2007.

to be a weighty part of his intellectual output but this is not how the matter is perceived by mainstream economics.⁵ Even more paradoxically, monetary theory has remained a relatively underdeveloped part of Marxist economics.⁶

Mainstream economic theory generally acknowledges Marx's stature as a great thinker, but dismisses outright his monetary theory, or is even unaware of it. There is an unjustified perception of Marx as a 'metallist' of little relevance to contemporary monetary phenomena. The prevalence of this view owes much to Schumpeter, whose sweeping assertions about the history of economic thought can befuddle those unfamiliar with the original texts.⁷ It is also due to Marx's (admittedly copious) references to gold, which have frequently misled Marxist and heterodox economists.⁸ Some Marxist monetary theorists have continued to search for an active role of gold in contemporary monetary phenomena, particularly in relation to the function of money as measure of value.⁹ The presumption is that unless money was shown to retain a commodity form (i.e. a value-containing form), Marx's monetary theory, not to mention the labour theory of value, would be rendered obsolete.

The dismissal or one-sided reading of Marx's monetary writings is also due to the material being inherently disorganised. Much of Marx's advanced monetary work lies in chaotic form in part five of Volume III of *Capital*. It was actually a jumble of notes that Engels found in Marx's papers after his death, and brought to publishable form through a true labour of love. At first sight it appears to be a medley of theoretical points, empirical observations, long quotes and comments on others. To appreciate its depth it is necessary to persevere and, above all, to place it in the appropriate institutional context, including the development of monetary thought. These steps are far from common among those who comment on Marx's theory of money.

Even the monetary theory that Marx actually prepared for publication, however, presents daunting problems. At its core lies very dense analysis of the dialectics of value and money, coupled with critical discussion of an enorm-

5 Already in 1858, while completing the *Contribution to the Critique of Political Economy*, Marx wrote in a letter to Engels: 'if I'm wrong, so is the whole history of the monetary theory' (see Marx 1983, p. 396).

6 This is certainly true for the currently dominant Anglo-Saxon Marxism, but less so for German and Japanese Marxism.

7 See, for instance, Schumpeter 1954, p. 290.

8 A characteristic example is Lavoie 1986.

9 See, for instance, Germer 2004.

ous range of monetary theorists. For those familiar with Marx's method, these monetary writings can offer startling insight. For those trained in neoclassical economics, the prevalence of dialectics as well as Marx's systematic references to the history of economic thought pose insurmountable challenges.

The cornerstone of Marx's published analysis of money can be found in Volume I of *Capital*. Relevant points are also available in the *Grundrisse*, though strictly speaking the latter was not prepared for publication by Marx and appeared long after his death.¹⁰ Equally important is the *Contribution to the Critique of Political Economy*, Marx's first systematic foray into political economy, which was published almost a decade before *Capital*. In that work Marx put forth one of the earliest surveys of the history of monetary theory, while placing his monetary analytics in appropriate context. Command over the *Contribution* – and of the work of the theorists surveyed within – is a *sine qua non* for appreciating Marx's monetary theory.

Marxist theorists have pored over Volume I of *Capital* and the *Grundrisse* (but much less the *Contribution*) for several decades, typically with the aim of developing the labour theory of value. In recent years, for instance, a stream of writings has emerged which treats value as abstract labour that necessarily has a monetary expression, i.e. it necessarily appears as money. The origin of this literature is ultimately Rubin's *Essays on Marx's Theory of Value* published in the Soviet Union in the 1920s. This work has had a strong influence on contemporary writings on value, for instance, through the 'value-form' current.¹¹ It has also been influential in the recent resurgence of monetary interpretations of Marx's value theory, often with a neo-Hegelian tinge.¹²

Concern with the relationship between value and money is a characteristic aspect of the interest in monetary theory among Marxist economists in recent years.¹³ The output produced has created fresh openings for Marxist political economy, but the bulk of it has remained fundamentally about value rather than money. That is, it has rarely offered a specific understanding of monetary phenomena as an integral aspect of the capitalist economy.¹⁴ In contrast to

10 Rosdolsky's account of the place of the *Grundrisse* in Marx's writings is outstanding, and much of it focuses on Marx's analysis of money (Rosdolsky 1977).

11 See Reuten and Williams 1989.

12 For instance, Arthur 2004, and Murray 2005.

13 The collection by Moseley admirably sums up much of the current state of play in this field (Moseley 2005).

14 The outstanding exception is Foley, whose insights have been vital to developing Marxist monetary theory, as is also mentioned in other places in this book (for instance, Foley 1982a, 1983b). Nonetheless, Foley's concept of the Monetary Expression of Labour,

Marx's own monetary writings, this work almost never engages with non-Marxist monetary analysis, nor does it place Marxist analysis within the broad evolution of monetary theory. Last but not least, much of it suffers from a surfeit of Hegelian argumentation at the expense of economics.¹⁵

Marx's monetary writings should be critically assessed in terms of both their internal coherence and their relationship to classical and other monetary theory. Ultimately, however, the standing of Marxist monetary theory depends on the insight it offers on contemporary monetary phenomena. Relevance is the prime requirement, particularly in view of the remarkable monetary features of financialised capitalism. Marx's own writings were, of course, produced under very different conditions of monetary development. But they can still provide powerful guidance, if their intellectual and historical context is kept firmly in mind, as is shown in the following section.

2.2 *Marxist Theory of Money Relative to Neoclassicism and Chartalism*

The relevance of any monetary theory to actual monetary phenomena derives in part from the answer it gives to the question: What is money and how does it emerge? At first sight the question appears trivial, or highly abstruse, yet on closer inspection its true complexity and significance begin to emerge. Money has the ability to buy commodities, but is itself never bought; money is universally held by market participants, but is not directly consumed; money's typical state is to be in motion, but it is also kept static in hoards; and so on, and so forth. Why is such an extraordinary economic entity present in markets, and how does it emerge?

Marx offered a distinctive answer to this question, the significance of which can be fully appreciated only in the context of other monetary theory.¹⁶ It is notable, for instance, that Classical Political Economy offers little guidance on this issue. Classical economists were certainly concerned with the peculiarity of money, but approached the issue instrumentally, so to speak. The standard view was put forth by Adam Smith in the course of analysing 'primitive' exchange of commodities.¹⁷ In a nutshell, if money were absent, direct commodity exchange would prevail; however, direct exchange would be prone to constant breakdowns since the commodities held by traders would frequently

developed in connection with his solution to the transformation problem, has limited explanatory power over the value of money (see Fine, Lapavitsas and Saad-Filho 2004).

15 A characteristic example is Chris Arthur, for whom Hegel-type dialectics entirely replace monetary theory and economics (Arthur 2006); for a telling response, see Sekine 2009.

16 Discussion in this section draws heavily on Lapavitsas 2003, ch. 3.

17 See Smith 1904, vol. I, ch. v.

be incompatible in terms of quantities, quality, time of exchange, and so on. Hence, a 'prudent' trader has to keep a commodity desired by all to facilitate exchange. This commodity would be money.

Smith was thus fully aware of the inherent economic awkwardness of direct exchange, and associated money with it. But he did not confront the most difficult part of the problem, namely why should there be a commodity desired by all? And how could such a commodity emerge, if it were not already money? In short, what is the essence of 'moneyness' and how does it come about? Answers to this question began to appear only after the Classical School had gone into decline, and were produced almost simultaneously by Neoclassicism, the German Historical School, and Marxism.¹⁸ The first major economist to confront the issue was actually Marx, though his views remain the least known within economic theory. However, the power of Marx's answer can be fully appreciated only in the context of the other two schools.

Neoclassicism contains two theoretical strains on this issue. The dominant strain is closely associated with Walras's formulation of General Equilibrium in which money appears as abstract measure of value and means of exchange.¹⁹ Despite being aware of the fundamental place of money in commodity exchange, this approach offers no explanation for the endogenous emergence of money in its models.²⁰ The equations of General Equilibrium, purporting to be the most advanced theoretical formulation of capitalist markets, ultimately treat capitalist trading as direct exchange.

The minor neoclassical strain, originating with Menger and the Austrian School, has more to offer on this issue.²¹ Avoiding mathematical formulations

18 This point is often missed by anthropologists, sociologists and other social scientists who discuss the origin of money and typically criticise 'economic theory' for relating money to direct exchange. Thus, Graeber makes a typically withering attack on Smith for assuming a 'primitive' society and an imaginary state of barter out of which money presumably emerges (Graeber 2011, ch. 2). There is, of course, little doubt that Smith's image of barter among 'primitives' is fallacious and a product of its time. However, engaging in the abstraction of barter, even if crudely, is hardly the main problem with Smith's analysis, particularly as this abstraction allowed him to capture the economic difficulties of direct exchange in exemplary fashion. Rather, the problem is that Smith's abstraction does not provide a logical foundation for the emergence of money out of the difficulties of direct exchange. Contemporary 'economic theory' is fully aware of this weakness and has attempted to answer it by developing a variety of further abstractions, briefly mentioned in the text below. Graeber, and other critics from anthropology and related disciplines, appear unaware of this aspect of modern monetary theory.

19 See Walras 1954.

20 As has been explicitly acknowledged by Hahn 1982.

21 See Menger 1981 and 1892.

of market operations, Menger focused on individual choices and actions. His argument, brutally simplified, is as follows: Commodities are, by assumption, differentially 'marketable'; gifted individuals identify and demand commodities with better 'marketability', thereby facilitating their own transactions; other individuals learn by example and hence also demand commodities with better 'marketability'; consequently the 'marketability' of one commodity increases until it dominates all others, thus becoming money.

Menger's argument is logically powerful, but its coherence derives from overwhelming focus on money as means of exchange, paying much less attention to more complex functions of money, such as means of hoarding. This was probably related to Menger's narrow approach to economic theorising, based on extreme methodological individualism. Nonetheless, the Austrian tradition has offered the best argument that Neoclassical theory can muster on the issue of money's emergence. In recent years, there have been attempts to incorporate Menger's argument within Walrasian General Equilibrium, adding considerable formalism but not much further substance.²²

The German Historical School – locked in debate with the Austrians – rejected Menger's individualist economic theorising, instead favouring analytical descriptions of economic processes that drew on accumulated historical evidence. Consequently, it has produced no theory of money's emergence. However, it has generated a body of analysis that places money in a wider social context, further associating it with non-market and non-economic forces. Its legacy among social sciences other than economics has been enormous and its prominence has increased in recent years.

The most influential approaches to money broadly belonging to this current appeared as German Historical School entered its terminal decline.²³ One prominent view associates money with non-economic forces of a communal character, deriving from ancient practices of recompense for damage inflicted on others, commonly known as *Wergeld*. This approach has had considerable influence among social scientists, though not among economists, for obvious reasons. In recent years, it has been forcefully restated by the erudite numismatist Grierson.²⁴

22 The original contribution in this literature is Jones 1976. For further discussion of this issue, as well as of other views on the emergence of money, see Lapavistas 2003, chs. 3, 6.

23 Probably the last systematic echo of the German Historical School on the issue of money's emergence can be found in Weber 1968.

24 See Grierson 1977. Note that Polanyi (1944, 1957) and his followers (for instance, Dalton 1965) have put forth penetrating arguments about money and markets that resonate with those of the German Historical School as well as with Marxism. Some of these views,

A further influential view, known as *chartalism*, identifies the origin of money with the state. The best-known exponent is Knapp, for whom money is a legal convention of value imposed by the state.²⁵ Unlike the *Wergeld* approach, *chartalism* has always maintained a toehold in economics.²⁶ The argument that money is essentially an arbitrary construct which measures commodity values on the basis of legal and customary conventions has been revived in recent years by Post-Keynesians.²⁷ Chartalism has an obvious appeal under conditions of financialised capitalism. Given that the monetary sphere is permeated by valueless credit money convertible only into state-backed legal tender, it is easy to assume that the measure of value results from the say-so of the state.

Both the *wergeld* and the *chartalist* approaches to money's emergence are broader than neoclassical analysis, encompassing several of money's functions instead of focusing mainly on means of exchange. Moreover, both incorporate a wealth of non-economic factors to account for the emergence of money, and hence have a special appeal for anthropologists and economists. The approach of the German Historical School, furthermore, appears to fit naturally with evidence from Sumerian and Babylonian history regarding the ancient emergence of money and credit in societies that were based on royal and priestly prerogative.²⁸ On this score, money's origin seems unrelated to commodity exchange.

The putative historical connection between money and the credit practices of ancient Middle Eastern societies has offered further possibilities for developing alternative theories of the origin of money. In this connection, mainstream economic theory has been useful to alternative theorists, even if mainstream

for example, the distinction between 'general purpose' and 'special purpose' money, have been very influential within anthropology and sociology. However, they do not constitute theoretical analysis of the emergence of money, and hence they are not directly relevant to our concerns.

25 See Knapp 1924.

26 Even attracting Keynes's attention (see Keynes 1973, p. 3).

27 See Wray 1990, 1998, 2000, and 2004, and also Ingham 2004a. Both Wray and Ingham attribute some of their insights to Innes 1913, and 1914.

28 See Ingham 2000, and 2004a. Note that the search for historical evidence to support the view of money emerging as abstract unit of account has long predated the current preoccupation with Sumeria and Babylonia. Einaudi, whose views are strangely ignored by contemporary chartalists, has argued that medieval European money was originally an imaginary unit of account (Einaudi 1953, 1970). Unfortunately, this view holds no water for historians, who have shown that medieval money was a very real means of exchange (see Werveke 1934). This is perhaps one reason why contemporary chartalists typically seek refuge in the fields and deserts of Mesopotamia.

analysis has not always been acknowledged by critics who are not economists. Thus, both Schumpeter and Hicks have put forth credit theories of money.²⁹ Despite differences, both postulate that the fundamental interaction among economic agents is characterised by credit relations based on promises to pay, rather than by the give-and-take characteristic of the exchange of equivalents. From this perspective, money is fundamentally a promise to pay that might be based on relations of trust, power, social custom, and so on. To critics of mainstream economics, treating money as a promise to pay appears to augment the scope for alternative analysis: money does not have to be a commodity and its origin can be sought in non-commercial social relations typically found in non-capitalist historical societies.³⁰

A number of critical points can be made about the approaches to money spawned by the German Historical School. First, it is notable that their strength is also the source of their weakness. Namely, by emphasising the role of non-economic forces in the emergence of money, theorists are led to seek the origins of money outside the process of exchange, and even outside the sphere of the economy altogether. This is deeply unsatisfactory for a phenomenon that is overwhelmingly economic and closely associated with markets. It is one thing to acknowledge that money has non-economic dimensions, but it is quite another to argue that it derives independently of economic processes.

Second, the *chartalist* view that money is a measure of value determined arbitrarily by the state is itself an arbitrary assertion. The state certainly intervenes in the functioning of money, but that does not mean that money is logically anchored on the state. An extra-market authority would need to possess extraordinary omniscience and power arbitrarily to determine the basis of commodity value measurement.

Third, credit-based theories of money suffer from the telling weakness that commodity forms of money are not promises to pay since they incorporate value. Advanced capitalism is indeed based on money that comprises promises to pay, but only a leap of logic would equate gold with a promise to pay, or with a debt.³¹

29 See Schumpeter 1912, and Hicks 1967. Schumpeter's theory of credit money is harder to access in his writings and is less known (see Messori 2004).

30 On this basis, Ingham has even erected a complex sociological structure regarding money's origin (Ingham 2004a). However, the most recent, and by far the most ambitious, attempt to develop the various strains of the German Historical School's arguments, while mobilising anthropological insight, was made by Graeber (2011). Both Ingham and Graeber are dismissive of Marx's theory of money, even though both have a limited appreciation of it.

31 A leap performed with aplomb by Graeber (2011, ch. 3), who confuses the trust on which

Fourth, and more broadly, credit-based theories of money offer a slender foundation for explaining the collapse of financial relations and the corresponding rise of monetary relations that is characteristic of capitalist crises.

It is instructive to note, incidentally, that some aspects of the *chartalist* view go back to Classical Political Economy. Sir James Steuart proposed a well-developed version of abstract value measurement shortly before Adam Smith wrote *The Wealth of Nations*. Steuart suggested that 'money of account' is an abstract numeraire that establishes ideal prices, which are then approximated in practice by 'material money'.³² Marx, despite the high regard in which he held Steuart's monetary analysis, rejected this view. Marx's arguments on this issue offer insight into the analysis of money as originating in commodity exchange.³³

The gist of Marx's objection to Steuart's theory of the abstract numeraire was that it obfuscates the relationship between ideal prices (established abstractly by money on paper, or in the mind) and actual prices (established in practice by money through regular commodity exchanges). The distinction between the two is valid and characteristic of commodity exchange, but actual prices are not practical approximations of ideal prices. Rather, actual prices reflect local, particular and incidental factors of production and exchange; hence they do, and must, diverge from ideal prices. The divergences do not arise from putative disparities between an ideal measure of value and its material approximation, but rather from the universal determination of value in the abstract compared to its particular determination in practice. The actual operations of commodity exchange render the abstraction of value into a real phenomenon, but they do so in specific circumstances. Furthermore the process of reconciling actual and ideal prices often involves violent economic episodes, including monetary crises. The measure of value, however, has nothing ideal and abstract about it, as it arises spontaneously out of the operations of commodity exchange.

Marx's own analysis of 'moneyness' predates those of Neoclassicism and German Historicism. It is profoundly theoretical, though not in the individualist manner of Menger, while incorporating the broad array of money's functions

all money must be based, i.e. the trust to accept money as representative of value, with the trust that is the essence of credit, i.e. the trust to accept the validity of a promise to pay later.

32 See Steuart 1995, vol. 11, pt. iii, chs. i, ii.

33 See Marx 1970, pp. 79–81. These issues are further discussed in Lapavistas 2005a, in debate with Ingham 2001 and 2006. For an earlier analysis that deals with money as measure of value in Ricardian as opposed to Marxist theory, see Lapavistas 1996.

and relations that concerned the Historical School. Its finished form is found in chapter one of the first volume of *Capital*, where Marx proudly claimed to have been the first to have solved the riddle of the 'dazzling money-form'.³⁴ The *Contribution* had prepared the ground by examining the dialectics of use value and exchange value, while the *Grundrisse* had explored the historical and social role of money.

Summarily put, money is a commodity that emerges spontaneously as the 'universal equivalent' or the 'independent form of value'. For Marx, the emergence of money occurs necessarily in commodity exchange due to the contradictory unity of use value and exchange value. As use values, commodities are imperfectly divisible, available at specific places and times, perishable, and so on, i.e. they are particular. As exchange values, they are the opposite, i.e. general. In direct exchange, therefore, the two sides continually contradict each other, leading to breakdown of exchange. The emergence of money is necessary in order to resolve (or, rather, pacify) the contradictions. Money resolves the contradictions by being the independent form of value, thus disentangling the two sides: commodities can be use values as themselves, while becoming exchange values as money. In short, monetary exchange overcomes and transcends direct exchange.

The logical necessity of money's emergence also has a historical and social dimension, most clearly discussed by Marx in the *Grundrisse*. To reproduce themselves, all societies must engage in internal exchange of products. However, societies in which production is organised primarily on communal and associational principles need not necessarily turn products into commodities. Customary, hierarchical, moral, political, and other mechanisms could facilitate product exchange, thus excluding money. Marx did not subscribe to Adam Smith's fallacious abstraction of 'primitive' trade. Treating money as the outcome of relations of commodity exchange has nothing to do with assuming that money emerges out of a primordial state of barter.

For Marx, societies in which production is run by autonomous and private owners of the means of production necessarily turn products into commodities. Such societies rely on markets to organise the flow of commodities and to allow reproduction to take place: they require money as a social organiser, and none more so than capitalist society. However, the historical origin of money does not lie within the internal organisation of communities; money does not emerge as a curative for a malfunctioning barter economy. Rather, money emerges where communities come into contact with each other and

34 See Marx 1976b, p. 139.

commodity exchange occurs.³⁵ When and where communities would come into contact with each other, relations of ‘otherness’ and ‘foreignness’ would be dominant; thus room would be provided for commodity exchange, allowing money to emerge as the independent representative of value. This is an insight of astonishing power in view of anthropological and sociological research that has broadly confirmed its validity during the following century and more.³⁶

For Marx, however, it was not enough simply to show that money must necessarily emerge in commodity exchange. The real theoretical difficulty lies in demonstrating the process through which money emerges spontaneously. Put differently, the problem is to specify the essence of ‘moneyness’. Marx’s answer was given in chapter one of Volume I of *Capital* in analysis of the ‘form of value’ (to be precise, the analysis was added by Marx in the second edition). Money was shown to emerge through the dialectic of the relative and the equivalent forms of value, both of which are inherent to commodity exchange. The relative form stands for the active element, the side which commences the act of exchange; the equivalent form stands for the passive element, the side that responds.³⁷

The form of value goes through four stages as the dialectic of relative and equivalent is played out, namely the accidental, the expanded, the general, and the money stage. At each of these stages a transformation occurs of both the relative and the equivalent until, at the final, money stage, the equivalent becomes firmly associated with a single commodity. This happens because all other commodities act collectively as relatives and therefore place the isolated commodity in the position of universal equivalent, i.e. money. Thus, the money commodity acquires what Marx called a ‘formal use value’, namely being able directly to exchange with (buy) all the others, which is the foundation of its ‘moneyness’.³⁸

There are loose ends to Marx’s argument – and even unwarranted assertions – particularly regarding the dialectics of the transition among the various

35 See Marx 1976b, p. 182; 1981, pp. 447–8; 1973, p. 223.

36 Emphasis on this point is one of the great merits of the treatment of money by the Uno School (see also Lapavistas 2003, ch. 3).

37 This approach to Marx’s treatment of money’s emergence has been further developed in Lapavistas 2005b, in the spirit, though not necessarily in the letter, of the Uno School (see also Itoh 1980, and Sekine 1997, and 1999). The original insight regarding the opposition between the relative and the equivalent in commodity exchange comes from the distinction between the active (*‘to poioun’*) and the passive (*‘to paskhon’*), which is fundamental to Aristotle’s philosophy (for instance, Aristotle 1926, pp. 280–1).

38 See Marx 1976b, p. 184.

stages.³⁹ However, his analysis has formidable power for several reasons. For one thing, it shows that money emerges spontaneously as well as necessarily in commodity exchange. Further, it posits the emergence of money as the outcome of the actions of the other commodities, i.e. the universal equivalent is jointly created by the collective relative. Even more crucially, Marx's analysis pivots on the 'formal' aspect of 'moneyness'. The latter is an essence that arises within the process of exchange without which no theoretical account of money's emergence would be possible. Commodities are identical *qua* commodities; if one is to stand aside from all the others, it must possess some extra dimension. For Marx, the extra dimension arises solely and necessarily because of the conduct of other commodities (that is, of commodity owners). 'Moneyness', in other words, is not invented by the state or some other non-economic agency; it is a social construct emerging spontaneously out of commodity interactions, and therefore containing an irreducible economic content.

To recap, for Marx, money is the universal equivalent, or the independent form of value. It arises spontaneously and necessarily in commodity exchange as a result of the development of the form of value, and is spurred by the contradictions between use value and exchange value. Money has a profound historical and social role in societies that engage in commodity exchange. The money form tends to be exclusively associated with one commodity, typically gold. Commodity money is thus the original and fundamental form of money.

These conclusions are a sound foundation for Marxist monetary theory, but they could also be a source of concern since they ostensibly contradict the prevalence of valueless money in contemporary capitalism. Is Marx's theory of money capable of casting light on the salient monetary aspects of financialisation, namely the ascendancy of private credit money, the pivotal role of state-backed central bank money, and the emergence of the dollar as quasi-world-money? The answer is in the affirmative, provided the functions of money are brought to the fore.⁴⁰ In this vein, sections 3 and 4 of this chapter discuss private credit money and state-backed central bank money; subsequently, section 5 turns to world money and lays the ground for discussion of the monetary phenomena of financialisation.

39 Discussed more fully in Lapavitsas 2005b.

40 Further theoretical discussion can be found in Lapavitsas 1991, and Itoh and Lapavitsas 1999, ch. 1.

3 Contemporary Valueless Domestic Money: Fiat Money, Private Credit Money and State-Backed Central Bank Money

3.1 *Fiat Money*

For Marxist monetary theory, the original form of money is a commodity, typically taken to be gold.⁴¹ Yet there has never been a unique form of the money commodity, but rather a range of commodities serving as money, including salt, hides, cattle, slaves, tobacco, metals, and so on. Even though Marxist analysis demonstrates the tendency of a single money commodity to dominate the rest as the independent form of value, in practice such a unique occurrence has never taken place. The precious metals have certainly overshadowed other forms of the money commodity in the course of history; however, even gold and silver functioned concurrently as money until the second half of the nineteenth century, with gold having the paramount role.

Multiple and concurrently existing forms of the money commodity are a natural outcome of commodity exchange, and do not negate the tendency toward a single universal equivalent. The reason is that the economic and social forces that lead to the emergence of the universal equivalent are continually replicated across the sphere of exchange. These forces reflect local conditions with specific features, which therefore give rise to local and partial equivalents. At any moment in time, there are likely to be several commodities that strive for the position of the universal equivalent.⁴² Moreover, the privilege of being the universal equivalent, or the independent form of value, is continually contested among commodities, even if one among them would have in practice risen above the rest. Success depends partly on the physical features of the commodity that seeks to be money, and partly on the economic and social factors that generate trust in its use, i.e. on the broader factors that sustain 'moneyness'. By this token, the commodity that acts as the universal equivalent must continually reassert its dominance over the rest.

Fiat money represents a form of money arising primarily due to the tension between the function of commodity money as measure of value and its function as means of exchange.⁴³ The actual use of the money commodity as means of exchange inevitably results in wear and tear (exacerbated by fraud and counterfeiting); it follows that the function of measure of value would be affected since commodity values would be rendered into one set of prices by the intact

41 This view is consistent with historical evidence, as well as with the conventional association of money with precious metals, particularly gold (see Vilar 1976).

42 The economic logic of this phenomenon is discussed in detail in Lapavistas 2005b.

43 See Marx 1970, p. 110.

(and abstract) money commodity, and into quite another (and higher) set of prices by the degraded (and circulating) money commodity. The intrinsic operations of commodity exchange, in other words, generate a (degraded) form of money that symbolises itself. Thus, room is spontaneously created for fiat money to emerge.

The tension between measure of value and means of exchange that is inherent to commodity money could be partly assuaged by the money commodity being standardised by the state. Transforming commodity money into metallic coin strengthens its social acceptability by associating money with the power of the state.⁴⁴ Coin also stabilises the measurement function by fixing the unit of account across the process of exchange, particularly if the state succeeds in limiting other types and denominations of coin within its territory.⁴⁵ But coining does not eliminate the problem of wear and tear through actual circulation. Indeed, coining could make the problem worse since the state could corrupt coin to lessen the burden of its debts and other obligations.

Proper fiat money replaces commodity money with valueless and inconvertible symbols issued by the state. Fiat money ultimately rests on trust in the ability of the state to enforce payments in fiat money; it competes with commodity money and restricts the presence of the latter in the sphere of exchange; it also provides a standard unit of account for prices. Fiat money can take several forms varying from cheap metallic coin, to crude paper monies with forced circulation, to sophisticated legal tender issued by central banks and backed by state debt. The dominant form of fiat money in the period of financialisation overlaps with credit money, as is shown below.

The various forms of fiat money thus have two fundamental functions, namely means of exchange and unit of account for prices. The adequacy with which they deliver these functions depends on the institutional framework of circulation, but also on the quantities in which fiat money is issued by the state. If fiat money were over-issued, it would obviously render value into rising prices, thus malfunctioning as unit of account; if over-issue persevered, fiat money would also fail as means of circulation. Inflation and hyperinflation are thus constant threats to the validity of fiat money.

44 Coin most likely appeared first in ancient Asia Minor, but in historical terms it was essentially a Greek invention, as Schaps has shown (Schaps 2004). It probably arose independently of state authority, but, at least in the ancient Greek world, its minting and use were inextricably connected to state power.

45 Historians of Medieval Europe have shown that significant accounting costs used to result when coins of different state denominations were in concurrent circulation (see Lane and Mueller 1985, vol. 1).

In principle, however, there is no reason why some forms of fiat money could not function indefinitely in the sphere of exchange. Fiat coin, for instance, obviates the need to cut precious metals in tiny amounts; it is also cheaper than issuing very small denominations of credit money, or even of e-money, as is discussed in the rest of this chapter. Fiat coin has adapted remarkably well to the small end of commodity circulation across a huge range of social relations and institutions in the course of history. Contemporary coin would not have been entirely unfamiliar to Venetian citizens, or even to Roman plebeians.

3.2 *Private Credit Money and State-Backed Central Bank Money*

In contrast to commodity and fiat money, credit money is a privately issued form of money that results from credit relations among agents of circulation. It is inherently a promise to pay in the future, i.e. a liability of the issuer. Credit money is normally created as financial institutions issue liabilities to finance the loans they make. By the same token, credit money returns to its issuer as loans mature (liabilities drain away).⁴⁶ Final settlement requires either cancellation against another promise to pay, or the intervention of commodity or fiat money.

Credit money is rooted in money's function as means of payment and arises as a by-product of the development of credit in capitalist economies.⁴⁷ In its original form it is a promise to pay an amount of commodity money, and thus credit money springs from the very essence of credit relations. A promise to pay is capable of functioning as money ultimately because of trust in the ability of the issuer to fulfil the promise made. Unlike fiat money, credit money is a specifically capitalist form of money insofar as it is created spontaneously and according to the demand for credit among capitalist enterprises.⁴⁸

Typically, banks advance loans to industrial and commercial enterprises, funded through the expansion of bank liabilities, and thus credit money dominates large-scale transactions. The extent to which credit money displaces other forms of money in circulation depends on the holders' trust in the issuer's promise to pay. Trust, in turn, derives from the quality of the issuer's assets,

46 The return of credit money to its issuer is the 'law of the reflux' that was noted by Steuart and became a defining feature of the Banking School in Britain (see Lapavistas 1994).

47 See Marx 1976b, p. 238.

48 This is a fundamental insight of the post-Keynesian tradition that is in broad agreement with Marxist monetary theory.

as well as from the issuer's social and economic power. Furthermore, trust depends on the overall stability of the credit system within which issuers make loans and create credit money.⁴⁹

It follows that the specific form of credit money depends critically on the institutional structure and the practices of the credit system. Credit money has changed substantially as capitalism has developed, ranging from clumsy circulating trade credit instruments, to private banknotes, to ever-multiplying deposits issued by financial institutions (primarily banks). The evolution of credit money has continued apace under financialised capitalism, even giving rise to electronic forms, discussed below.

The state intervenes in the realm of credit money on terms that are dictated by the spontaneous evolution of the credit system itself. The operations of the credit system tend to isolate one bank among the others by making it into the bank of banks, i.e. the central bank. Specifically, banks tend to concentrate their reserves in one bank, and consequently to favour its liabilities in settling promises to pay among them.⁵⁰ Room is thus created for the state to declare the liabilities of the bank of banks to be legal tender, making their acceptance obligatory in the settlement of debts and obligations. This action profoundly alters privately created credit money by turning it into a promise to pay the liabilities of the central bank rather than the money commodity.

The state thus plays a decisive role in the ascendancy of credit money as well as in excluding commodity money from the sphere of circulation. However, considerable analytical care is needed to avoid misconceptions on this point. Credit money comes spontaneously to dominate large-scale transactions in mature capitalism, but it never completely eliminates commodity money from the sphere of circulation, and not even from the circulation of personal income. The liabilities of the bank of banks tend to remain promises to pay the money commodity. The precious metals have obvious advantages as both coin and bullion (intrinsic value, portability, durability, and so on), which allow them to continue serving as money among enterprises and in the circulation of personal income. Tellingly, and running ahead of the following section, the precious metals persist as world money, and states keep hoards of commodity money for payments and value transfers.

The umbilical cord between commodity money and capitalist circulation could only be finally cut by the state. The typical way would be for the state

49 These issues are more fully discussed in Lapavistas 2003, ch. 4.

50 Some elements of this development are discussed in Itoh and Lapavistas 1999, chs. 1, 2, 3, and Lapavistas 2003 ch. 4.

to lift the convertibility of the liabilities of the central bank into the money commodity. In the modern era, the decisive action in this respect was taken by the British state in 1914 at the outbreak of the First World War.⁵¹ Since that time, gold has not functioned in the domestic circulation of advanced capitalist countries in any significant way. However, gold retained a strong presence in the world market after the Second World War, buttressed by the Bretton Woods Agreement of 1944. The link of credit money with the money commodity was finally severed in 1971–3, when the US reneged on its promise to exchange a troy ounce of gold for \$ 35. Gold has become a hoard of last resort, jealously held and managed by central banks and other state authorities.

Severing the link between credit money and the money commodity has had profound implications for both domestic and international circulation. The impact on international circulation is discussed in the next section. In domestic circulation, on the other hand, cutting the gold anchor, already in the interwar years, has made it possible for the state to manage private credit money on the basis of a new and peculiar form of state-backed credit money. To be more specific, in contemporary capitalism bank-created credit money ultimately promises to pay central bank credit money (banknotes and bank reserves), while the state has declared the latter to be inconvertible into anything else. This development has afforded enormous scope for economic intervention and, together with the lifting of the gold anchor internationally, has been fundamental to the financialisation of capitalism.

Central bank money that is inconvertible into the money commodity, while simultaneously being legal tender, is a peculiar hybrid of fiat and credit money. On the one hand, it is credit money created as loans are advanced and draining away as debt is repaid, even if these operations relate to the central bank. On the other, it is fiat money because it rests on the authority of the state, and is supported by central bank assets that typically include state instruments of debt. Such hybrid money has two specific forms, namely banknotes issued by the central bank and bank reserves held at the central bank; both are fundamental to financialisation but function differently from each other. Their differences are considered in more detail in the following section, suffice it here to note the following.

51 Convertibility of sterling into gold was also suspended in 1797 as the Napoleonic Wars began in full earnest, but the period of the 'Restriction' came to an end in 1819, after giving rise to the Bullion Controversy that ushered Ricardo into political economy. At the time, neither the British nor the world economy possessed sufficiently mature credit mechanisms to allow circulation to thrive on inconvertible credit money.

Banknotes are in practice absent from large-scale transactions among enterprises and are rarely used to pay wages and salaries. They function primarily as means of exchange and hoarding at the tail end of individual income circulation.⁵² The trust required for banknotes to function as money (i.e. their social acceptability) is generated through the backing of the state as well as through the norm of daily use. Banknote use differs significantly among advanced countries, depending on the institutional mechanisms of banking but also on the customs and habits of personal income expenditure. Central banks supply banknotes passively since they consider banknotes to be largely irrelevant to the management of credit money and of credit flows more generally.⁵³

Bank reserves, on the other hand, are the primary means of hoarding and payment among large financial institutions; they also provide the ultimate means of redemption for privately created credit money. Thus, bank reserves are a vital lever used by the state to manage domestic money but also to influence credit flows. The deployment of bank reserves depends on, first, the trust that private banks have in the central bank and, second, on the cost of holding reserves. Trust in the central bank, in turn, depends on state backing, but also on the quality of the assets of the central bank. A complex game of institutional rules and practices is continually played between the central bank and private banks to ensure that bank reserves remain the preferred form of settlement for privately created credit money among financial and other institutions. This inevitably results in differences in the use of reserve deposits among developed capitalist countries in practice, discussed in the following section.

4 Domestic Valueless Money in the Course of Financialisation: Electronic Money

It is apparent from the preceding discussion that valueless money poses no problems for Marxist monetary theory – there is no crippling ‘metallism’ in Marx. Valueless money arises necessarily and spontaneously and takes the form of both fiat and credit money. As the former, it is a symbolic replacement of commodity money; as the latter, it is a promise to pay commodity money, or a state-backed unit of money that is itself valueless. Both forms intervene

52 Banknotes also function in criminal, illicit or ‘grey’ transactions, and large volumes are typically held outside their country of issue (see Rogoff 1998, for evidence on the largest countries). This issue is also briefly considered in the following section.

53 As was clearly established by Freedman 2000.

in capitalist circulation according to the economic and institutional relations that support their emergence.

In the course of financialisation, both private credit money and state-backed central bank money have continued to evolve, particularly by adopting electronic forms. Furthermore, forms of electronic money have emerged that are qualitatively different from credit money, a rather unusual phenomenon in capitalist circulation. Closer empirical examination of these developments could cast further light on the underlying relations of financialised capitalism. The discussion below relates to USA, Japan, Germany and the UK, the four countries that are more broadly considered throughout this book in empirical terms. Data comes from the Bank of International Settlements (BIS) and refers to the 1990s and 2000s, the decades during which financialisation reached a peak.

4.1 *Private Credit Money Takes Electronic Form*

It is instructive to start the analysis by briefly describing the form taken by monetary transactions in recent years. The BIS classifies transactions as 'cash' (i.e. completed with banknotes and coin) and 'cashless' (i.e. completed with credit or debit cards, direct debits, cheques, and credit transfers). In terms of the preceding analysis, the former are transactions using fiat or state-backed central bank money, while the latter are credit money transactions.

Among credit money transactions, there is little substantially to differentiate cheques from direct debits or credit transfers. Cheques are written payment orders transferring credits among bank accounts, while direct debits or credit transfers are similar payment orders that typically take an electronic form. The difference is that cheques alter money entries mostly in paper form, while transfers do the same electronically.⁵⁴ Debit cards are yet another way of transferring funds already existing in bank accounts. Credit cards, on the other hand, typically provide the holder with credit, that is, with a loan made by the card supplier. However, debit cards could also allow for overdrafts on existing bank accounts, blurring the difference between already possessing a sum of money and obtaining fresh funds from a lender. Both types of card move money entries electronically among transacting parties.

In this light, consider the evolution of cashless transactions from the middle of the 1990s to the middle of the 2000s. Figures 1, 2, 3 and 4 show credit/debit cards, cheques, credit transfers, and direct debits as a share of the total number of cashless transactions:

54 This essential similarity creates technical problems of classification and presentation of figures, which are apparent, for instance, in the sudden jumps of the time series for Japan in Figures 4 and 5. Even more violent jumps occur in the US data, though they are not reported here. However, these classification problems do not affect the gist of the analysis.

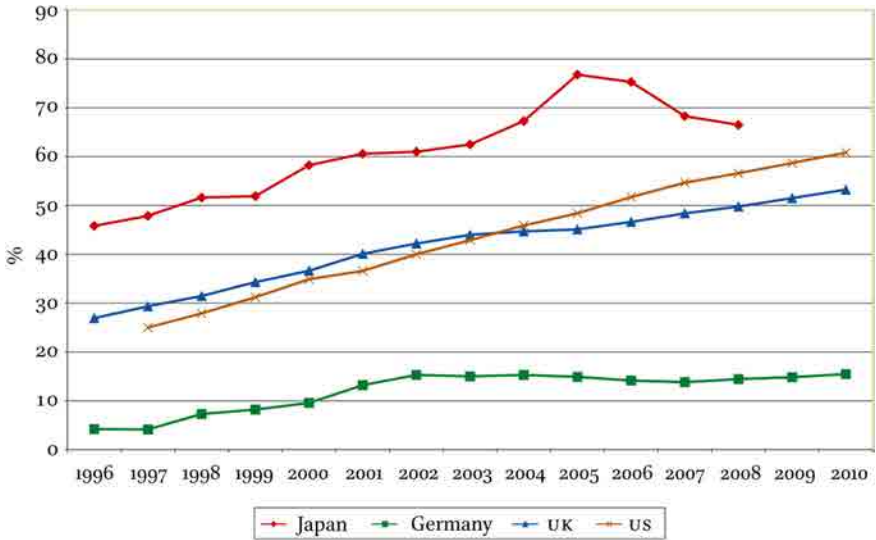


FIGURE 12.1 Credit and debit card payments as a share of total number of cashless transactions. BIS, *Statistics on payment, clearing and settlement systems in the CPSS countries, 2012, 2011, 2007, and 2002*. Data for Japan in 2009–2010 and for the US in 1996 are not available.

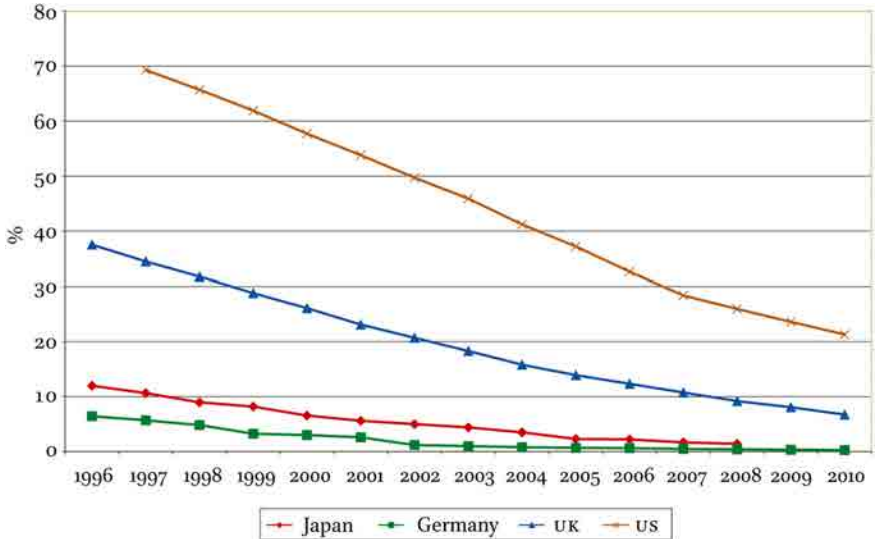


FIGURE 12.2 Cheques as a share of total number of cashless transactions. BIS, *Statistics on payment, clearing and settlement systems in the CPSS countries, 2012, 2011, 2007, and 2002*. Data for Japan in 2009–2010 and for the US in 1996 are not available.

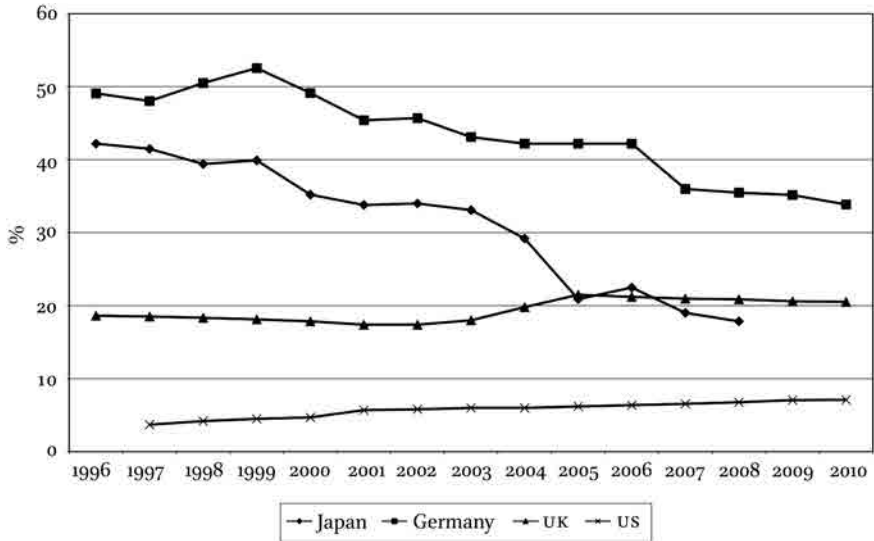


FIGURE 12.3 *Credit transfers as a share of total number of cashless transactions. BIS, Statistics on payment, clearing and settlement systems in the CPSS countries, 2012, 2011, 2007, and 2002. Data for Japan in 2009–2010 and for the US in 1996 are not available.*

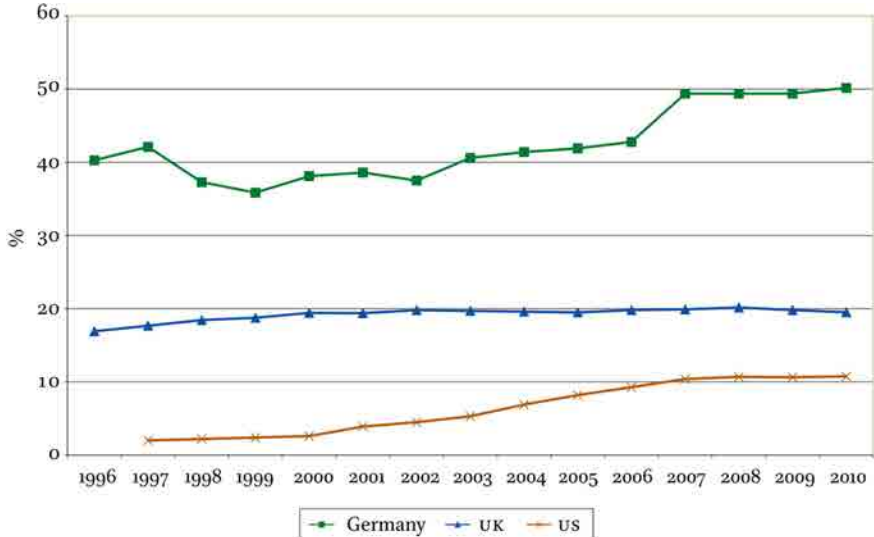


FIGURE 12.4 *Direct debits as a share of total number of cashless transactions. BIS, Statistics on payment, clearing and settlement systems in the CPSS countries, 2012, 2011, 2007, and 2002. Data for the US in 1996 and for Japan are not available.*

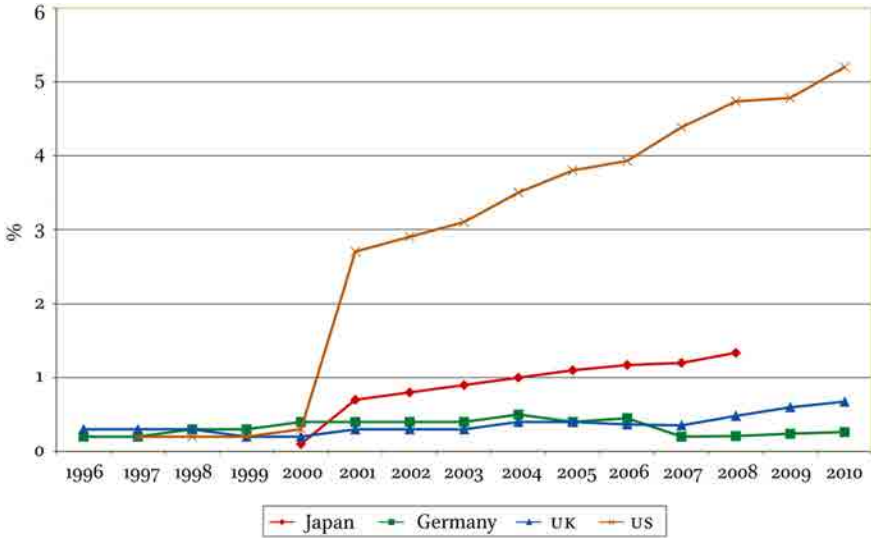


FIGURE 12.5 *Credit and debit card payments as a share of total value of cashless transactions. BIS, Statistics on payment, clearing and settlement systems in the CPSS countries, 2012, 2011, 2007, and 2002. Data for Japan in 1996–1999 and 2009–2010 and for the US in 1996 are not available.*

There has been considerable variation in the dominant forms of credit money across the four countries during this period. Japan has consistently used cards more heavily than the rest, while Germany has lagged significantly behind the others; cheques have never had much weight either in Germany or Japan, while they have been strongly used in the USA. Apart from these variations that reflect institutional, legal and even cultural differences, it is notable that the use of cards has risen across the sample, while cheques have been in retreat. The decline of cheques is clear even present in the USA, which has traditionally relied on cheques for a large part of the total number of transactions.⁵⁵

Consider now credit/debit cards, cheques, credit transfers, and direct debits in relation to the total value of cashless transactions, shown in Figures 5, 6, 7, and 8. There has been much less variation across the four countries in this respect (the sudden jumps in the US data reflects changes in classification rather than actual shifts in money use). The vast bulk of the value of cashless transactions has been mediated by payment orders among bank accounts, the USA retaining a predilection for written orders in the form of cheques;

⁵⁵ See also Federal Reserve Bulletin 2002, 2005, and Federal Reserve 2002.

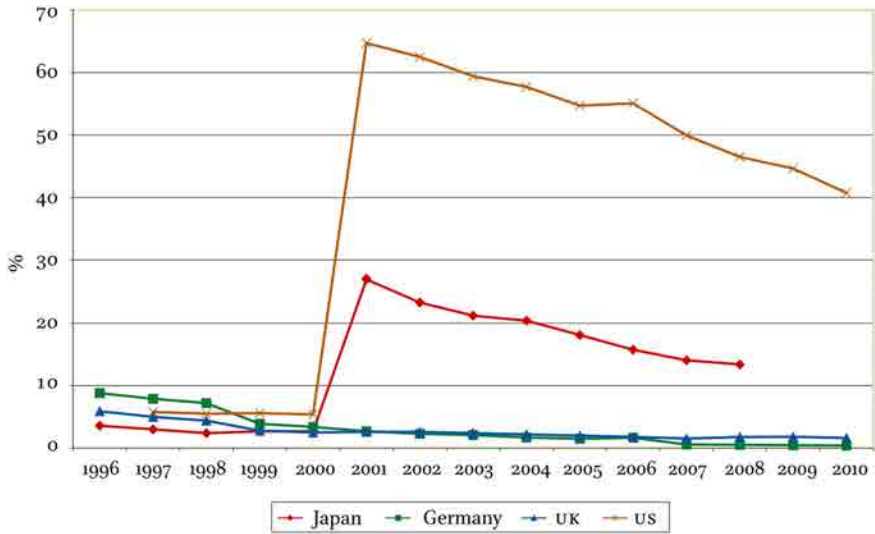


FIGURE 12.6 Cheques as a share of total value of cashless transactions. BIS, Statistics on payment, clearing and settlement systems in the CPSS countries, 2012, 2011, 2007, and 2002. Data for Japan in 2009–2010 and for the US in 1996 are not available.

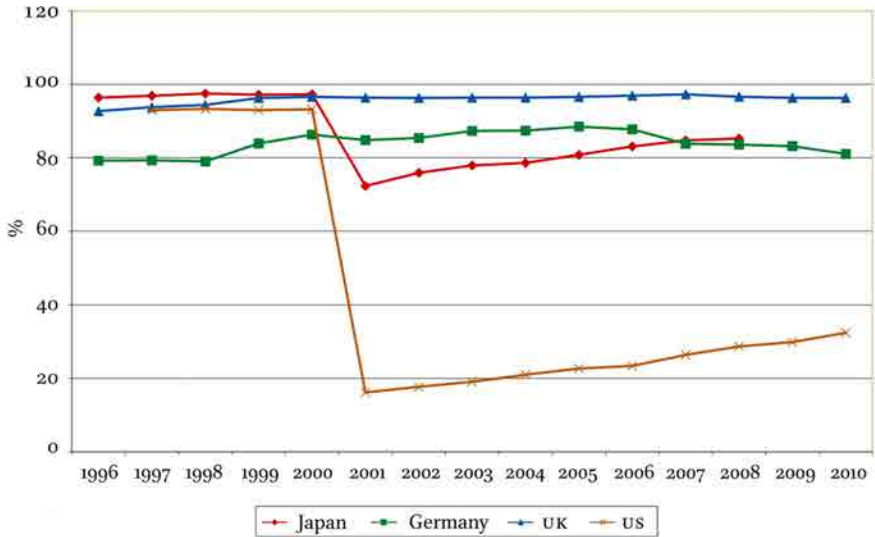


FIGURE 12.7 Credit transfers as a share of total value of cashless transactions. BIS, Statistics on payment, clearing and settlement systems in the CPSS countries, 2012, 2011, 2007, and 2002. Data for Japan in 2009–2010 and for the US in 1996 are not available.

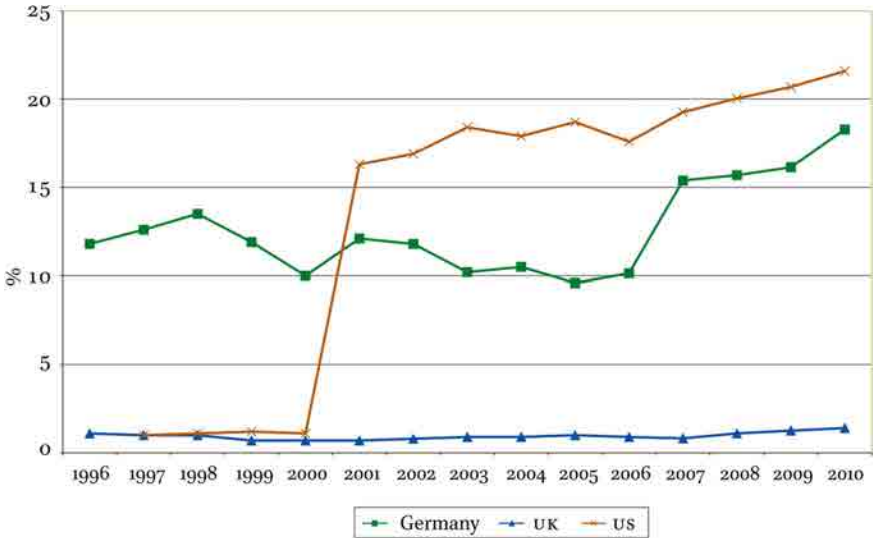


FIGURE 12.8 *Directs debits as a share of total value of cashless transactions. BIS, Statistics on payment, clearing and settlement systems in the CPSS countries, 2012, 2011, 2007, and 2002. Data for the US in 1996 and for Japan are not available.*

nonetheless, the use of paper orders has still gone into decline. Meanwhile, the use of cards has risen, even if the value mediated has been a small fraction of the total.

Extrapolating from both total number and total value of transactions, it appears that credit transfers, direct debits, and cheques have been the money of large-scale transactions during this period. It is reasonable to suppose that these have been transactions among enterprises, while debit and credit cards have been used primarily to circulate private income. The evidence also shows that electronic forms of transferring bank account entries have been increasingly used compared to paper-based forms.

The electronic form of credit money that has been on the ascendant in the years of financialisation can be called ‘access electronic money’, or ‘access e-money’. This is an envelope term that captures several means of transferring conventional credit money electronically. Typical examples are debit and credit cards but also other forms of payment that have been increasingly ‘electronified’, such as credit transfers, and direct debits.⁵⁶ Access e-money presents no theoretical challenges since it involves little more than altering the corporeal form of credit money from paper to electronic signals. International commercial banks have been using electronic forms of money transmission in

⁵⁶ See European Central Bank 2003a.

the clearing process since the interwar years. It appears, however, that financialisation has been marked by stronger use of access e-money both among corporations and in the circulation of personal income.

The spread of access e-money is related to the transformation of banks in the course of financialisation. The introduction of new information and telecommunications technology which has contributed to changes in the lending practices of banks has also lowered the costs of completing transactions electronically compared to sorting and processing paper orders. On the other hand, introducing electronic transaction processing capacity, including Automated Teller Machines (ATMs) has imposed substantial investment costs on banks, including changes in organisation and requisite labour skills.⁵⁷ The spread of access e-money in the course of financialisation, thus, reflects the introduction of new technology but also the altered internal organisation and even the branch structure of banks.

Access e-money has probably had a significant effect on aggregate profitability during this period, though it is hard to assess its magnitude. For banks, it has facilitated cheaper and easier settlement of transactions in 'real time'. By implication it has probably speeded up the turnover time of industrial and commercial capital, thus boosting profitability. Other things being equal, enterprises would also have kept lower money reserves, hence also boosting profitability. More generally, the spread of access e-money has probably accelerated the operations of financial institutions, thus encouraging financialisation. Nonetheless, the ascendancy of access e-money within cashless transactions has not induced a decline in cash transactions, as is shown in Figure 9 depicting the use of banknotes and coin:

Again, there has been significant variation across the four countries reflecting historical, institutional and cultural factors. Japan and Germany have been generally heavier users of cash than the USA and the UK, though the figures for Germany have suffered because of the replacement of the Deutschmark by the euro. The striking feature of Figure 9, however, is the persistence of cash across all countries throughout this period. In Japan, the use of cash has actually increased substantially, though this has probably been related to the long period of financial instability in the 1990s and 2000s and the associated policy of Quantitative Easing by the central bank, which is further discussed in Section 4.3.

Why has the spread of access e-money failed to lead to a decline in the use of banknotes and coin? This issue has also concerned mainstream economists,

57 For further analysis of this point, see Lapavitsas and Dos Santos 2008.

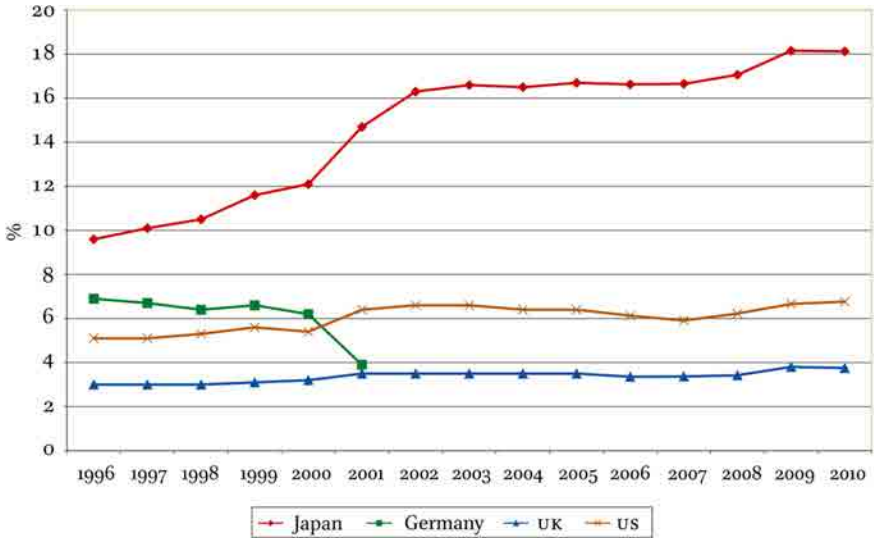


FIGURE 12.9 *Banknotes and coin in circulation as a share of GDP. BIS, Statistics on payment, clearing and settlement systems in the CPSS countries, 2012, 2011, 2007, and 2002. Since 2002, the data are not applicable to Germany, as the corresponding statistical category does not exist.*

who have generally expected the use of cash to fall.⁵⁸ Paradoxically, the persistence of cash is in part an unintended consequence of the spread of access e-money. For, as banks have developed extensive ATM networks facilitating the use of debit and credit cards, cash has also become more readily available in small sums that could be obtained more frequently. The question then properly becomes, why did the demand for banknotes and coin in circulation remain strong? The following three factors are important, and shed light on the role of money in financialised capitalism.

The first is the risk of fraud attached to access e-money since the account details of the buyer might become known to the seller, or to a third party, thus allowing for fraudulent charging, especially over the internet. The holder might also fraudulently add units to e-money vehicles. Both types of fraud have been major concerns of access e-money issuers, users and regulators, thus necessitating substantial investment in encryption technology.⁵⁹

58 Some replacement has of course taken place, though the extent of it remains empirically unclear (see Boeschoten and Hebbink 1996; Markose and Loke 2003; Stix 2003; Amromin and Chakravorti 2007).

59 There is much official concern about this issue (see, selectively, Bank for International Settlements 1996a, 1998, and European Central Bank 2003b).

The second is that most forms of access e-money provide information about holders, though anonymous forms also exist. In contrast, banknotes normally leave no trail of use, thus being suitable for illegal and 'grey' transactions.⁶⁰ Banknote anonymity also protects users against the attentions of a prying state.

The third is that access e-money has limited ability to deal with very small payments. The difficulties involved can be gauged from the internet where it has proven very difficult to introduce a reliable system of e-money 'micro-payments' (a fraction of the unit of account). There are transactions costs – including plain inconvenience – to using access e-money for tiny purchases leading internet users simply to avoid the latter. Beyond the internet, coin appears to be superior to access e-money in dealing with very small payments: it is easy to carry; it can be readily supplied in sufficiently small denominations; there is negligible profit from counterfeiting it; the cost is generally small if it is lost; it is also relatively cheap to produce and to put in circulation. Coin might be an ancient form of money, but it is still capable of dominating the tail end of the circulation of personal income in financialised capitalism.

Electronic forms of credit money, in short, have come to dominate circulation in the years of financialisation, without rendering obsolete either banknotes or coin, both of which have remained robustly present in the circuits of personal income and elsewhere. Technological change and the associated transformation of banks have sustained the ascendancy of access e-money. In turn, access e-money has had an impact on the operations and probably the profitability of banks, industrial and commercial capital. During the same period, however, a further form of e-money has emerged which is qualitative different from access e-money and which reveals further important aspects of financialisation.

4.2 *E-Money Proper: A New Form of Money in Financialised Capitalism*

E-money proper is a novel form of money that has emerged in the course of financialisation. Summarily put, it is money that is issued privately and its units are stored on an electronic device; units are purchased by advancing ordinary money at par value; the holder subsequently using these units to pay for commodities sold by agents other than the issuer.⁶¹

60 See Drehmann et al. 2002.

61 See Article 1 (3) of Directive 2000/46/EC (European Monetary Institute 2000a) which regulates the issuing of e-money in the European Union. The British Financial Services Authority (FSA) uses a slightly different description which excludes the condition that e-money should be exchanged at par for ordinary money (FSA 2001; Article 3.1). This is to

Rapidly growing forms of e-money proper are prepaid cards, or prepaid software programmes used on the internet, often called server-based e-money.⁶² E-money proper could be 'single-function', i.e. capable of buying particular commodities at particular locations, for instance, department store cards and transport cards. It could also be 'multi-function', allowing for a broader range of payments as, for instance, for so-called smartcards or transport cards with broader applications. As the use of e-money proper has spread, it has become possible to carry its units on the same card as access e-money, i.e. on bank debit and credit cards.

E-money proper is a liability of the issuer, but nevertheless differs qualitatively from ordinary credit money (and thus from access e-money). Credit money is typically issued against debt, and entails advancing the credit of the issuer which the holder accepts on trust. Credit money is typically more liquid than the assets held by the issuer against it, and drains away from the issuer as these assets mature. In contrast, e-money proper could only be issued against ready money (typically ordinary credit money) at par. The issuer could either hold the received funds as regular deposits with other financial institutions, or use them to purchase financial assets.

In effect, the issuers of e-money proper receive credit from its holders which lasts until the issued units of e-money are converted back into ordinary money by the holders. In contrast to credit money, e-money proper drains away from its issuer only when it is converted into ordinary money. The issuers are thus obliged to hold large reserves of ordinary money, or of financial assets that could be quickly converted into ordinary money. Issuers make a profit by earning a return on the assets exceeding the costs of issuing and managing the units of e-money proper. It is notable, and provides a further contrast with ordinary credit money, that e-money proper typically has less 'moneyness' than the ordinary money paid for it – it is less liquid. However, its 'moneyness' has a specific and local character which makes it preferable to the holder, for instance, in the case of transport cards.

The functioning of e-money proper is substantially shaped by the regulatory framework supporting it, which naturally varies among countries.⁶³ However,

prevent institutions from issuing e-money below par and thus formally placing themselves outside the FSA's regulations.

62 Analytical descriptions of these and other forms of e-money can be found in Bank for International Settlements 2004, Allen 2003, European Central Bank 2000, and European Monetary Institute Report 1994.

63 In Europe, these are determined by Directive 2000/28/EC, which amended Directive/2000/12/EC (see EMI 2000b), as well as Directive 2000/46/EC (see EMI 2000a). Regulation in the

certain features of regulation are held in common and have shaped the character of e-money proper. Thus, e-money proper could only be issued in exchange for ordinary (typically credit) money at par; it must also be redeemed at par; issuers face severe restrictions on the capital they must hold; issuers could only invest in a narrow range of very liquid securities – mostly public financial assets. Regulation, therefore, prevents issuers from operating as ordinary banks since e-money proper could not be issued to make loans or buy securities. The normal state of affairs is indeed the opposite of a bank: since the holder has to pay ready money to acquire e-money proper, as long as the latter is not immediately spent, the holder is giving credit to the issuer.

This complex regulatory framework has strengthened the acceptability of e-money proper by supporting trust in its use. Nonetheless, the spread of e-money proper has been limited in developed countries, not even meriting reference in the quantitative description of circulation in the figures given above. Limited spread is also due to the stipulation that e-money proper must be initially purchased at par with ordinary money, which makes it unsuitable for large transactions among enterprises. Regulation has forced e-money proper to remain small-scale money, functioning primarily as means of exchange and hoarding in the circulation of individual income. In that domain it has been heavily constrained by the strength of incumbent forms of money, particularly banknotes and coin.

Recapping, e-money proper differs qualitatively from credit money since it does not emerge from the advance of credit but comprises private liabilities obtained in exchange for existing money at par. Its emergence is an instance of the inherent tendency of capitalist circulation spontaneously to generate new forms of money. In the years of financialisation, industrial and commercial enterprises have re-strengthened this tendency by issuing e-money proper. At the same time, in developed countries, e-money proper has remained confined to the circulation of personal income leaving large-scale transactions untouched. Regulation and the residual strength of incumbent forms of credit money have limited its spread. Even in this respect, however, the emergence of e-money proper has reflected the peculiar importance of the circuits of personal income in financialised capitalism.

Remarkably, the potential for spontaneous money creation represented by technological and institutional changes within financialised capitalism has

USA is far less centralised and relies on existing legislation regarding money transmission at State level. Krueger is of the opinion that US regulation is 'lighter' (Krueger 2002), but the European Commission has argued strongly that US regulation is in practice equally restrictive (European Commission 2006).

been more fully apparent in developing countries. E-money proper has come into its own in a swathe of countries in Africa and Asia based particularly on telecommunications enterprises. The spread of mobile telephony has provided the underpinnings of acceptability, and thus 'moneyness', for e-money in developing countries. Typically, mobile phone users purchase e-money proper by advancing ordinary money; hold it as electronic units; and transfer it by simple messages. Related forms of e-money include 'scratch' cards, that is, electronic units purchased in cards with a code number, which could then be transferred by mobile phone message. Telecommunications companies have also started to allow mobile phone holders to use prepaid airtime units to make a variety of payments unrelated to telephony.⁶⁴

Vital in this respect has been the relative weakness of financial systems in developing countries, particularly their limited geographical and economic penetration across the economy, which has reduced the strength of incumbent forms of credit money. In developing countries, access to formal bank accounts is often restricted by physical absence of bank branches, high setting-up costs and prohibitive minimum balances. Furthermore, for low-income countries that rely on emigrant remittances, the costs of money transmission through formal financial channels can be prohibitive. Informal mechanisms, on the other hand, could entail significant risks and social obligations.

In this context, e-money proper is capable of thriving by acting as means of exchange and hoarding for personal income and for small enterprises. E-money proper based on mobile phones, or 'scratch cards', also offers the potential to remit money to remote areas at little cost. Thus, privately issued money and associated monetary innovations have created the possibility of by-passing formal financial institutions in low-income countries and expanding monetary circulation at the lower end.⁶⁵

The further spread of e-money proper in developing countries might be hampered by the lack of mutual convertibility of different issues at par. This is a weakness common to all e-money, but its importance becomes more apparent when such money spreads widely. All e-money units have to be

64 Academic work on these very recent developments is scarce. For a brief description, see Allen 2003. For further descriptions and analysis, see Porteous 2006, and Ivatury and Pickens 2006. More recent and broadly based work examining trust and the mechanics of the Kenyan M-PESA in particular can be found in Morawczynski and Miscione 2008, and Jack and Suri 2011.

65 Leading even to the far-fetched argument that electronic finance might allow developing countries to 'leapfrog' stages of financial development (see Claessens et al. 2002).

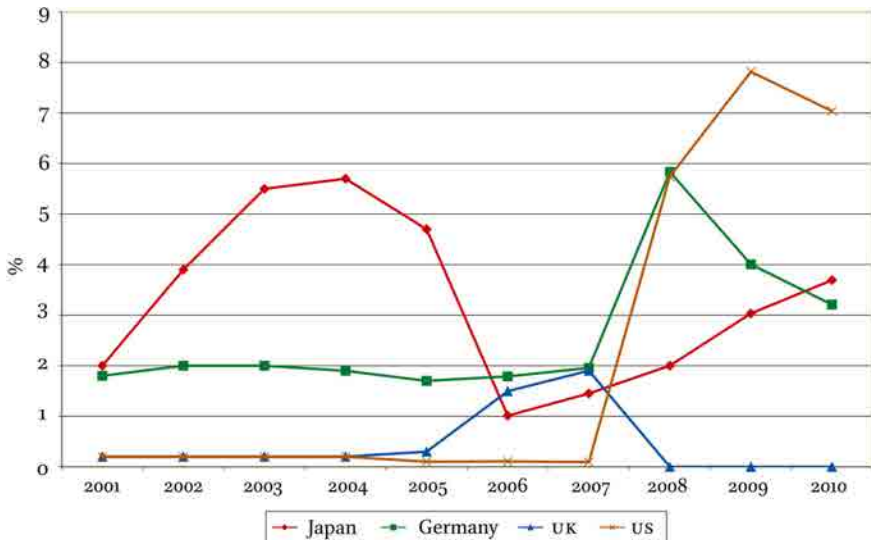


FIGURE 12.10 *Transferable deposits held by banks at the central bank as a share of GDP. BIS, Statistics on payment, clearing and settlement systems in the CPSS countries, 2012, 2011, and 2007.*

converted into ordinary money before they could be turned into each other. It is conceivable that mutual convertibility could be instigated in the future, thus further broadening the range of e-money proper. For this to arise, however, it would be necessary to introduce a system of mutual clearance of e-money liabilities, entailing significant costs for issuers. It remains to be seen whether such a development is feasible in developing countries.

4.3 *State-Backed Central Bank Money at the Peak of Financialisation*

The final part of domestic valueless money that calls for closer examination comprises bank reserves held with the central banks. Bank reserves, as was mentioned in Section 3.2, are the most important component of state-backed credit money and the pivot of state intervention in the realm of finance. The fluctuations of bank reserves in the four countries during the period preceding the crisis of 2007 are briefly discussed below on the basis of Figure 10. To be sure, only limited analytical mileage can be gained at this point, given the complexity of the credit processes involved. Nonetheless, a basis could be provided for further discussion of central banking and state intervention.

There have been significant differences in the use of bank reserves among the four countries, Japan and Germany initially surpassing the other two. These differences reflect variations in the institutional structure of the domestic credit system, particularly in the interaction between private banks and the

central bank in the money market. But more fundamentally, they reveal differences in state intervention in the monetary sphere.

The sudden bulging of Japanese bank reserves after 2001 is the outcome of Quantitative Easing, namely the policy of partly forcing, partly encouraging commercial banks to accumulate reserves in the hope of inducing commercial lending. A similar policy was adopted by the US and the UK central banks in 2008–9 as the crisis hit the financial sector. The proportionate size of bank reserves in the USA in 2009–10 has exceeded the peak of the Japanese bulge. This represents a dramatic change from US policy during the preceding period, which basically maintained reserves at very low levels. During that time, banks in the USA and the UK were able to generate liquid funds in open markets; banks were also less inclined to hoard means of payment.

Bank reserves have been vital to state intervention in the monetary sphere, even when their absolute size has been typically small relative to both output and other forms of money. Needless to say, state intervention in the realm of money and finance is a far broader set of actions than merely managing bank reserves, and includes determination of interest rates. In the years of financialisation, state intervention has been driven by the express concern to limit the propensity of valueless money to generate inflation, and thus to perform inadequately as measure of value. Since the 1990s, monetary policy has been set within the institutional regime of ‘central bank independence’ and has been summed up as ‘inflation targeting’. The crisis of the 2000s has delivered a major blow to inflation targeting, but at the same time reaffirmed the power of the state to intervene in the financial sphere, pivoting on state-backed central bank money.

5 **Contemporary Valueless World Money: The Dollar as Quasi-World-Money**

The severing of the link of credit money with gold after the collapse of Bretton Woods has had more severe repercussions for the international compared to the domestic monetary sphere for two fundamental reasons. First, there is no global credit system capable of generating a form of international credit money that could adequately operate as replacement for gold. Second, there is no state that could replicate the prevalent domestic monetary arrangements by generating state-backed credit money at the international level. The structure of the world market and the role of sovereign states within it are qualitative different phenomena from that of the domestic market that is supported by the nation state.

The US dollar has in practice functioned as a valueless replacement for gold in the world market. But it has been a problematic substitute resulting in unstable and exploitative arrangements that have placed their stamp on financialised capitalism. The theoretical parameters of this development are discussed below by briefly considering Marx's theory of world money, an undeveloped but integral part of his monetary theory.⁶⁶

Marx discussed the concept of world money briefly in the first volume of *Capital*, treating it as part of the composite function of money 'as money' which also comprises means of hoarding and means of payment.⁶⁷ In his own words:

World money serves as the universal means of payment, as the universal means of purchase, and as the absolute social materialisation of wealth as such (universal wealth). Its predominant function is as means of payment in the settling of international balances.⁶⁸

Several points stand out in this definition.

First, world money possesses the fundamental attribute of all 'money as money', namely to stand aloof from the regular grind of capitalist circulation while remaining capable of intervening decisively to transfer value, or settle balances.

Second, and related to the first, the agents that operate in the world market are obliged to hold world money to be able to act in the market at required moments; there is an element of external compulsion to holding world money, not merely choice.

Third, by this token, holding world money is an instrument of power for participants in the world market. Its possession affords the opportunity to pay and transfer value at critical junctures thereby shaping the underlying processes of value creation and circulation.

Fourth, compulsion and power jointly reaffirm the fundamental 'money-ness' of world money, that is, its ability to dominate commodities and to emerge as the absolute form of value in the world market.

The function of 'money as money' is characteristic of Marx's monetary theory and sets it apart from the corpus of Classical Political Economy. The hoarding function, for instance, inherently contains the possibility of crisis, since

66 For further analysis of the functioning and the form of world money in contemporary capitalism, see Lapavistas 2006.

67 See Marx 1976b, pp. 240–4.

68 Marx 1976b, p. 242.

money stops buying commodities and lies idle. 'Money as money' thus represents a potential theoretical break with the notion of spontaneous market equilibration. Classical Political Economists were, consequently, troubled by money's hoarding function. Ricardo, for one, could not readily accept the importance of money hoards, particularly because of the implication of insufficient demand and thus crisis. He had a well-known debate with Malthus on this issue, including on the international role of money.⁶⁹ A few decades later, the Banking School in Britain, locked in debate with the Currency School, stressed that there could be external compulsion to holding money as, for instance, when economic agents had obligations to meet.⁷⁰

In this light, Marx's stress on 'money as money' reveals the influence of mercantilism on his thought. For the mercantilist tradition, money was much more than simply a 'veil' on harmonious markets, and constituted the embodiment of wealth capable of reshaping economic activity and delivering political power. The legacy of mercantilism in this respect could be found across much heterodox monetary theory, not only Marxism. Heterodox theorists have often been forced to acknowledge the unique role of money when analysing capitalist crises and disruptions of circulation. Even Keynes discovered the continuing validity of elements of mercantilism when he examined the monetary phenomena of the interwar crisis.⁷¹

The mercantilist strain in Marx's monetary thought is at its clearest with regard to world money because the latter functions in the world market which differs from national markets in two respects. First, the world market lacks the legal, conventional, practical and customary mechanisms which provide homogeneity to national markets. It is inherently less homogeneous than national markets, also reflecting the absence of a world state that could have imposed conditions analogous to national markets. The world market is the terrain over which international private capitals meet the system of national states. Private capitals have to deal with a range of legal, customary, practical, and even cultural specificities in the world market. At the same time, national states must use the mechanisms of the world market to settle balances, transfer value, make payments, and borrow.

Second, the world market lacks the coordinating presence of an integrated credit system analogous to the credit system of national economies. Credit and finance certainly permeate the world market, but do not amount to a structured

69 See, for instance, Ricardo 1951a, pp. 64–5.

70 This view was clearly, and sharply, articulated by Tooke 1844.

71 See Keynes 1973, ch. 23.

credit system comprising ordered layers of credit relations, typically including commercial, banking and money market credit.⁷² By extension, there is no world central bank that could act as lender of last resort and issuer of legal tender.

For these reasons, world money must act as the coordinator or the organiser of the world market, that is, it must be a generally accepted means of hoarding (reserve) and means of payment for both international capitals and national states. In order to deliver these tasks, it must also be a commonly agreed measure of value that could apply to both commodities and past obligations. Finally, it must facilitate the exercise of inter-state political and military power, thus reflecting the conscious intervention of states in the world market.

The complexity of the role of world money is clear when one turns to Marx's analysis of the concrete monetary and commercial conditions of his era, found in several chapters of part five of the third volume of *Capital*.⁷³ Briefly put, for Marx, the world market systematically generates disequilibria in the balance of trade, which are violently readjusted through crisis and necessitate forced flows of world money. In this context, the ability of a state to access reserves of world money is an element of global power. There is strong evidence of mercantilist influence on this part of Marx's work, particularly due to Sir James Steuart, who had insisted that there is no automatic equilibration of trade balances through spontaneous flows of money.⁷⁴ Marx explicitly approved of Steuart's term 'money of the world' in his own brief discussion of world money.⁷⁵

The form of world money presents complex problems, particularly when taken in conjunction with its functioning. For Marx, world money assumes the commodity form, typically gold, thus reasserting the essential 'moneyness' of world money.⁷⁶ The money commodity that is gradually sidelined by valueless forms of money in domestic circulation re-emerges triumphant at the world level. The intrinsic value of gold that is generated in production acts as the anchor of international value measurement. The reserves and flows of gold forcibly provide order to international transactions of commodities and money capital.

Unfortunately, Marx's assertion that world money must take the form of a commodity has not fared well historically, and is at odds with the severing of the

72 The logical ordering of credit relations is examined in Itoh and Lapavistas 1999, ch. 4.

73 See, for instance, Marx 1981, chs. 30, 31, 32.

74 See, for instance, Steuart 1995, vol. III, bk. IV, pt. II, ch. VIII; and vol. III, bk. II, ch. XXVIII.

75 See Marx 1976b, p. 243.

76 Marx 1976b, pp. 240–1.

link between central-bank-issued money and gold in 1914. For most of the twentieth century, world money has taken a variety of valueless, non-commodity forms, all of which have been managed by the state. The functioning of money in the world market has been typically performed by credit money domestically created and resting on the fiat of national governments, above all, the US dollar. This development is of paramount importance for financialisation.

The Bretton Woods Agreement of 1944 maintained a degree of convertibility of the US dollar with gold but, as was noted above, the link was snapped in the early 1970s. Since then, international reserve formation and payments – underpinned by the international measurement of values – have depended on state intervention in ways that are unprecedented in the history of capitalism. World money has become even more clearly an instrument of state power, particularly of hierarchical, imperial power in the world market. For these reasons, contemporary world money has been called ‘quasi-world-money’ in Marxist literature.⁷⁷

The benefits to the USA of the dollar functioning as world money have been substantial in terms of its ability to exercise monetary policy domestically, to maintain foreign trade deficits and to import and export capital. Use of the dollar internationally has also spurred financialisation in developing countries and systematically transferred value to the USA. The function of world money has, however, continued to be contested terrain among the national currencies of the major capitalist powers, not least by the euro, a peculiar form of world money created collectively by several European powers.

77 See, for instance, Lapavistas 2006. The term has been borrowed from Makoto Itoh.

Bibliography

- Adorno, Theodor W. 1991, 'On the Fetish Character in Music and the Regression of Listening', in *The Culture Industry*, edited and introduced by J.M. Bernstein, London: Routledge.
- Aizenman, Joshua and Kenta Inoue 2012, 'Central Banks and Gold Puzzles', Working Paper 17894, NBER.
- Akerlof, George 1970, 'The Market for "Lemons": Qualitative Uncertainty and the Market Mechanism', *Quarterly Journal of Economics*, 84(3): 488–500.
- Allen, Helen 2003, 'Innovations in Retail Payments: E-Payments', *Bank of England Quarterly Bulletin*, Winter: 428–38.
- Amromin, Gene and Sujit Chakravorti 2007, 'Debit Card and Cash Usage: A Cross-Country Analysis', WP 2007–04, Federal Reserve Bank of Chicago.
- Appadurai, Arjun 1986, 'Introduction: Commodities and the Politics of Value', in *The Social Life of Things: Commodities in a Cultural Perspective*, edited by Arjun Appadurai, Cambridge: Cambridge University Press.
- Aramaki, M. 1957, 'Tsuka ronso to ginko seido', *Kyushu Daigaku Keizaigaku Kenkyu*, 23(1).
- 1958, 'Kahei seido no tenkai to tsuka ronso', *Kumamoto Shodai Ronso*, 6(January).
- Aristotle, 1926, *Nicomachean Ethics*, Loeb Classical Library, LCL 73, Cambridge, Mass.: Harvard University Press.
- Arnon, Arie 1984a, 'The transformation in Thomas Tooke's Monetary Theory Reconsidered', *History of Political Economy*, 16: 311–26.
- 1984b, 'Marx's Theory of Money: The Formative Years', *History of Political Economy*, 16: 555–75.
- 1991, *Thomas Tooke: Pioneer of Monetary Theory*, London, Edward Elgar.
- Arthur, Chris 2004, 'Money and the Form of Value', in *The Constitution of Capital*, edited by R. Bellofiore and N. Taylor, Basingstoke: Palgrave Macmillan.
- 2006, 'Money and Exchange', *Capital and Class*, 30(3): 7–35.
- Bank of England Quarterly Bulletin 1978, 'Bank of England Notes', *Bank of England Quarterly Bulletin*, September.
- 1982, 'Recent Changes in the Use of Cash', *Bank of England Quarterly Bulletin*, December.
- Bank for International Settlements (BIS) 1996a, *Security of Electronic Money*, Report by the Committee on Payment and Settlement Systems and the Group of Computer Experts of the Central Banks of the Group of Ten Countries, Basel, August, retrieved from: <http://www.bis.org/publ/cpss18.htm>
- 1998, *Risk Management for Electronic banking and Electronic Money Activities*,

- Basel Committee on Banking Supervision, Basel, March, retrieved from: <http://www.bis.org/publ/bcbs35.htm>
- 2004, *Survey of Developments in Electronic Money and Internet and Mobile Payments*, March, retrieved from: <http://www.bis.org/publ/cpss62.htm>
- Baumol, William 1952, 'The Transactions Demand for Cash: An Inventory Theoretic Approach', *Quarterly Journal of Economics*, 66(4): 545–56.
- Benjamin, Walter 2009 [1936], 'The Work of Art in the Age of Mechanical Reproduction', in *One Way Street and Other Writings*, edited with an introduction by A. Chaudhuri, London: Penguin.
- Bernanke, Ben and Mark Gertler 1989, 'Agency Costs, Net Worth, and Business Fluctuations', *American Economic Review*, 79(1): 14–31.
- Blau, Peter 1964, *Exchange and Power in Social Life*, New York: Wiley.
- Boeschoten, Willem and Gerbert Hebbink 1996, 'Electronic Money, Currency Demand and Seigniorage Loss in the G10 Countries', *Econometric Research and Special Studies Department*, De Nederlandsche Bank, NV.
- Braudel, Fernand 1982, *Civilisation and Capitalism, 15th–18th Century*, Vol. 2, London: Collins.
- Bryan, Dick 1995, *The Chase Across the Globe: International Accumulation and the Contradictions for Nation States*, Boulder, CO: Westview Press.
- Bryan, Dick and Michael Rafferty 1999, *The Global Economy in Australia*, Sydney: Allen and Unwin.
- Bürger, Peter 1984, *The Theory of the Avant-Garde*, Minnesota: University of Minnesota Press.
- Caplow, Theodore 1982, 'Christmas Gifts and Kin Networks', *American Sociological Review*, 47(3): 383–92.
- 1984, 'Rule Enforcement Without Visible Means: Christmas Gift Giving in Middletown', *American Journal of Sociology*, 89(4): 1306–23.
- Carrier, James 1991, 'Gifts, Commodities and Social Relations: A Maussian View of Exchange', *Sociological Forum*, 6(1): 119–36.
- 1994a, 'Alienating Objects: The Emergence of Alienation in Retail Trade', *Man* (New Series), 29(2): 359–80.
- 1994b, *Gifts and Commodities: Exchange and Western Capitalism since 1700*, London: Routledge.
- 1995, *Gifts and Commodities*, London: Routledge.
- Claessens, Stijn, Thomas Glaessner and Daniela Klingebiel 2002, 'Electronic Finance: Reshaping the Financial Landscape Around the World', *Journal of Financial Research*, 22: 29–61.
- Clower Robert 1967, 'A Reconsideration of the Microfoundations of Monetary Theory', *Western Economic Journal*, 6(4): 1–8.
- Corbett, Jenny and Tim Jenkinson 1997, 'How Is Investment Financed? A Study of

- Germany, Japan, the United Kingdom and the United States', *Papers in Money, Macroeconomics and Finance, The Manchester School Supplement*, 65 (supplement 1): 69–93.
- Cutler, Anthony, Barry Hindess, Paul Hirst and Athar Hussain 1978, *Marx's Capital and Capitalism Today*, Volume 11, London: Routledge & Kegan Paul.
- Dalton, George 1965, 'Primitive Money', *American Anthropologist*, 67(1): 44–65.
- De Brunhoff, Suzanne 1976, *Marx on Money*, New York: Urisen Books.
- Diamond, Douglas 1984, 'Financial Intermediation and Delegated Monitoring', *Review of Economic Studies*, 51(3): 393–414.
- Drehmann, Mathias, Charles Goodhart and Malte Krueger 2002, 'Challenges to Currency', *Economic Policy*, 17(34): 195–227.
- Duke, Michael 1979, 'David Hume and Monetary Adjustment', *History of Political Economy*, 11(4): 572–87.
- Einaudi, Luigi 1953, 'The Theory of Imaginary Money from Charlemagne to the French Revolution' in *Enterprise and Secular Change*, edited by F. Lane and J. Riemersma, Homewood, IL: Richard Irwin.
- 1970, 'The Medieval Practice of Managed Currency', in *The Lessons of Monetary Experience: Essays in Honor of Irving Fisher*, edited by A. Gayer, London: George Allen & Unwin.
- European Central Bank 2000, 'Issues Arising from the Emergence of Electronic Money', *Monthly Bulletin*, November: 49–60.
- 2003a, 'Electronification of Payments in Europe', *Monthly Bulletin*, May: 61–72.
- 2003b, *Electronic Money System Security Objectives*, May, retrieved from: <http://www.ecb.europa.eu/pub/pdf/other/emoneysecurity200305en.pdf>
- European Commission 2006, *Evaluation of the E-Money Directive (2000/46/EC)*, submitted by the Evaluation Partnership for the DG Internal Market, February, retrieved from: http://ec.europa.eu/internal_market/bank/docs/e-money/evaluation_en.pdf
- European Monetary Institute (EMI) 1994, *Prepaid Cards*, Report to the Council of the European Monetary Institute by the Working Group on EU Payment Systems, May, retrieved from: http://www.systemics.com/docs/papers/EU_prepaid_cards.html
- 2000a, 'Directive 2000/46/EC of the European Parliament and of the Council of 18 September 2000 on the taking up, pursuit of and prudential supervision of the business of electronic money institutions', *Official Journal of the European Communities of 27 October*, L 275, 39–43, retrieved from: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32000L0046&from=EN>
- 2000b, 'Directive 2000/28/EC of the European Parliament and of the Council of 18 September amending Directive 2000/12/EC relating to the taking up and pursuit of the business of credit institutions', *Official Journal of the European Communities*

- of 27 October, L 275, 37f, retrieved from: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32000L0028&from=EN>
- Federal Reserve 2002, 'The Future of Retail Electronic Payments Systems: Industry Interviews and Analysis', *Staff Study 175*, Federal Reserve Staff for the Payments System Development Committee, December.
- Federal Reserve Bulletin 2002, 'The Use of Checks and Other Noncash Payment Instruments in the United States', December: 360–74.
- 2005, 'Trends in the Use of Payment Instruments in the United States', Spring: 180–2001.
- Financial Services Authority 2001, *The Regulation of Electronic Money Issuers*, Consultation Paper 117, December.
- Fetter, Frank Whitson 1965, *Development of British Monetary Orthodoxy, 1797–1875*, Cambridge, MA: Harvard University Press.
- Fine, Ben 1975, *Marx's Capital*, London: Macmillan.
- 1980, *Economic Theory and Ideology*, London: Edward Arnold.
- 1985–6, 'Banking Capital and the Theory of Interest.' *Science and Society*, 49(4): 387–413.
- 1988, 'From Capital in Production to Capital in Exchange', *Science and Society*, 52(3): 326–37.
- 1997, 'The New Revolution in Economics', *Capital and Class*, 61(1): 143–8.
- 1999, 'A Question of Economics: Is It Colonising the Other Social Sciences?', *Economy and Society*, 28(3): 403–25.
- 2001, *Social Capital versus Social Theory: Political Economy and Social Science at the Turn of the Millennium*, London: Routledge.
- Fine, Ben and Laurence Harris 1979, *Rereading Capital*, Basingstoke: Macmillan.
- Fine, Ben and Costas Lapavistas 2000, 'Markets and Money in Social Theory: What Role for Economics?', *Economy and Society*, 29(3): 357–82.
- 2004, 'Social Capital and Capitalist Economies', *South-Eastern Europe Journal of Economics*, 2(1): 17–34.
- Fine, Ben, Costas Lapavistas and Alfredo Saa-Filho 2004, 'Transforming the Transformation Problem: Why the New Solution is a Wrong Turning', *Review of Radical Political Economics*, 36(1): 3–19.
- Firth, Raymond 1929, *Primitive Economics of the New Zealand Maori*, London: George Routledge & Sons.
- 1959, *Social Change in Tikopia*, London: George Allen and Unwin.
- Foley, Duncan 1982a, 'The Value of Money, the Value of Labor Power and the Marxian Transformation Problem', *Review of Radical Political Economics*, 14(2): 37–47.
- 1982b, 'Realisation and Accumulation in a Marxian Model of the Circuit of Capital', *Journal of Economic Theory*, 28(2): 300–19.
- 1983a, 'Money and Effective Demand in Marx's Scheme of Expanded Repro-

- duction', in *Marxism, Central Planning, and the Soviet Economy*, edited by P. Desai, Cambridge, MA: MIT Press.
- 1983b, 'On Marx's Theory of Money', *Social Concept*, 1(1): 5–19.
- 1986a, *Money, Accumulation and Crisis*, London: Harwood Academic Publishers.
- 1986b, *Understanding Capital*, Cambridge: MA, Harvard University Press.
- Freud, Sigmund 1961 [1927], 'Fetishism', in *The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume XXI (1927–1931)*, translated by J. Strachey, London: Hogarth and the Institute of Psychoanalysis.
- Friedman, Benjamin 1988, 'Lessons of Monetary Policy from the 1980s', *Journal of Economic Perspectives*, 2(3): Summer.
- 2000, 'Decoupling at the Margin: The Threat of Monetary Policy from the Electronic Revolution in Banking', *International Finance*, 2(3): 261–72.
- Friedman, Milton 1959, 'The Demand for Money: Some Theoretical and Empirical Results', *National Bureau of Economic Research*, Occasional Paper No. 68.
- 1971, 'The Quantity Theory of Money: A Restatement', in *Readings in Macroeconomics*, second edition, edited by M. Mueller, Hinsdale, IL: The Dryden Press, pp. 146–60.
- Friedman, Milton and Anna Jakobson Schwartz 1970, *Monetary Statistics of the United States: Estimates, Sources, Methods*, Ch. 3, National Bureau of Economic Research, London: Macmillan.
- Fullarton, John 1969 [1845], *On the Regulation of Currencies*, 2nd edition, New York: Augustus Kelley.
- Gale, Douglas and Martin Hellwig 1985, 'Incentive Compatible Debt Contracts: The One-Period Problem', *Review of Economic Studies*, 52(4): 647–63.
- Garegnani, Pierangelo 1978–9, 'Notes on Consumption, Investment and Effective Demand', *Cambridge Journal of Economics*, 2(4) and 3(1).
- Germer, Claus 2004, *The Commodity Nature of Money in Marx's Theory*, London: Routledge.
- Gertler, Mark 1988, 'Financial Structure and Aggregate Economic Activity: An Overview', *Journal of Money, Credit, and Banking*, 20(3): 559–88.
- Godelier, Maurice 1999, *The Enigma of the Gift*, Chicago, IL: University of Chicago Press.
- Goodhart, Charles A.E. 1975, *Money, Information and Uncertainty*, New York: Barnes and Noble.
- 1994, 'What Should Central Banks Do? What Should Be Their Macroeconomic Objectives and Operations?', *Economic Journal*, 104(427): 1424–36.
- 1995, *The Central Bank and the Financial System*, Cambridge, MA: MIT Press.
- Gouldner, Alvin 1960, 'The Norm of Reciprocity: A Preliminary Statement', *American Sociological Review*, 25(2): 161–78.
- Graeber, David 2011, *Debt: The First 5000 Years*, Brooklyn, NY: Melville House.

- Granovetter, Mark 1990, 'The Old and the New Economic Sociology: A History and an Agenda', in *Beyond the Marketplace*, edited by R. Friedland and A.F. Robertson, New York: Aldine De Gruyter.
- Green, Roy 1982, 'Money, Output and Inflation in Classical Economics', *Contributions to Political Economy*, 1, 59–85.
- 1992, *Classical Theories of Money, Output and Inflation*, London: Macmillan.
- Gregory, Chris 1980, 'Gifts to Men and Gifts to God: Gift Exchange and Capital Accumulation in Contemporary Papua', *Man*, 15(4): 626–52.
- 1982, *Gifts and Commodities*, London: Academic Press.
- 1997, *Savage Money*, Amsterdam: Harwood.
- Gregory, Theodor Emmanuel 1928, *Introduction to Tooke, T., and Newmarch, W.: A History of Prices*, London: King and Son.
- Grierson, Philip James Hamilton 1903, *The Silent Trade: A Contribution to the Early History of Human Intercourse*, Edinburgh: William Green & Sons.
- Grierson, Philip 1977, *The Origins of Money*, London: Athlone Press.
- Grubel, Herbert 1961, 'Ricardo and Thornton on the Transfer Mechanism', *Quarterly Journal of Economics*, 75(2): 292–301.
- Hahn, Frank 1965, 'On Some Problems of Proving the Existence of an Equilibrium in a Monetary Economy', in *The Theory of Interest Rates*, edited by F. Hahn and F. Brechling, London: Macmillan.
- 1971, 'Equilibrium with Transactions Costs', *Econometrica*, 39(2): 417–39.
- 1973, 'On Transactions Costs, Inessential Sequence Economies and Money', *Review of Economic Studies*, 40(4): 449–61.
- 1982, *Money and Inflation*, Oxford: Blackwell.
- Harris, Lawrence 1976, 'On Interest, Credit and Capital', *Economy and Society*, 5(2): 145–77.
- 1981, 'Marx's Theory of Interest: A Comment', Open University, Milton Keynes, UK, mimeo.
- Harvey, David 1982, *The Limits to Capital*, Oxford: Basil Blackwell.
- Hawtrey, Richard 1918, 'The Collapse of the French Assignats', *Economic Journal*, 28: 300–14.
- Hayek, Friedrich von 1939, 'Introduction', in *An Enquiry Into the Nature and Effects of the Paper Credit of Great Britain*, by Henry Thornton, London: George Allen & Unwin.
- Hegel, Georg Wilhelm Friedrich 1975 [1817], *Logic*, Oxford: Oxford University Press.
- Herodotus 1954, *The Histories*, translated by Aubrey de Selincourt, Harmondsworth: Penguin.
- Hicks, John 1967, *Critical Essays in Monetary Theory*, Oxford University Press.
- Hilferding, Rudolf 1981 [1910], *Finance Capital*, London: Routledge & Kegan Paul.
- Hirata, Y. 1961, 'T. Tooke no ginkogenri ni tsuite', in *Shinyoron Kenkyu*, edited by K. Suzuki, Tokyo: Daigaku Shuppankai.

- Hollander, Stuart 1979, *The Economics of David Ricardo*, Heinemann, London.
- Homans, George 1958, 'Social Behavior as Exchange', *American Journal of Sociology*, LXIII(6): 597–606.
- Horner, Francis, 1957, *The Economic Writings of Francis Horner*, Fetter, Frank Whitson, (ed), London School of Economics, London.
- Hume, David 1875, *Essays*, London: Longmans, Green and Co.
- 1955 [1752], *Writings on Economics*, edited by Eugene Rotwein, Edinburgh: Nelson.
- Hutchinson, Sharon E. 1996, *Nuer Dilemmas: Coping with Money, War and the State*, Berkeley, CA: University of California Press.
- Hyde, Lewis 1983, *The Gift: Imagination and the Erotic Life of Property*, New York: Random House.
- Ingham, Geoffrey 1996, 'Money is a Social Relation', *Review of Social Economy*, 54(4): 507–29.
- 1998, 'On the Underdevelopment of the "sociology of money"', *Acta Sociologica*, 41(1): 3–18.
- 1999, 'Capital, Money and Banking: A Critique of Recent Historical Sociology', *British Journal of Sociology*, 50(1): 76–96.
- 2000, "'Babylonian madness": On the Historical and Sociological Origins of Money', in *What is Money?*, edited by J. Smithin, London: Routledge.
- 2001, 'Fundamentals of a Theory of Money: Untangling Fine, Lapavitsas and Zeliser', *Economy and Society*, 30(3): 304–23.
- 2004a, *The Nature of Money*, Cambridge: Polity Press.
- / 2004b, 'The Emergence of Capitalist Credit Money', in *State and Credit Theories of Money: The Contributions of A. Mitchell Innes*, edited by R. Wray, Cheltenham: Edward Elgar.
- 2006, 'Further Reflections on the Ontology of Money: Responses to Lapavitsas and Dodd', *Economy and Society*, 35(2): 259–78.
- Innes, A. Mitchell 1913, 'What is Money?', *Banking Law Journal*, May: 377–408, reprinted in *State and Credit Theories of Money: The Contributions of A. Mitchell Innes*, edited by R. Wray, Cheltenham: Edward Elgar.
- 1914, 'The Credit Theory of Money', *Banking Law Journal*, January: 151–68, reprinted in *State and Credit Theories of Money: The Contributions of A. Mitchell Innes*, edited by R. Wray, Cheltenham: Edward Elgar.
- Itoh, Makoto 1976, 'A Study of Marx's Theory of Value', *Science and Society*, 40(3): 307–43.
- 1980 [1976], 'A Study of Marx's Theory of Value', in *Value and Crisis*, London: Pluto Press.
- 1988, *The Basic Theory of Capitalism*, London: Macmillan.
- Itoh, Makoto and Costas Lapavitsas 1999, *Political Economy of Money and Finance*, Basingstoke: Macmillan.

- Ivatury, Gautam and Mark Pickens 2006, *Mobile Phone Banking and Low-Income Customers: Evidence from South Africa*, Consultative Group to Assist the Poor/The World Bank and United Nations Foundation.
- Iwai, Katsuhito 1988, 'The Evolution of Money – A Search Theoretic Foundation of Monetary Economics', *CARESS Working Paper 88-03*, University of Pennsylvania.
- Jack, William and Tavneet Suri 2011, 'The Economics of M-PESA', Working Paper No. 16721, NBER.
- Jaffee, Dwight and Thomas Russell 1976, 'Imperfect Information, Uncertainty and Credit Rationing', *Quarterly Journal of Economics*, 90(4): 651–66.
- Jevons, Stanley 1875, *Money and the Mechanism of Exchange*, London: Appleton.
- Jones, Robert 1976, 'The Origin and Development of Media of Exchange', *Journal of Political Economy*, 84(4): 757–76.
- Keynes, John Maynard 1930, *A Treatise on Money*, London: Macmillan.
- 1973 [1936], *The General Theory of Employment, Interest and Money*, London: Macmillan.
- Kindleberger, Charles P. 1984, *A Financial History of Western Europe*, London: George Allen & Unwin.
- King, Wilfred Thomas Cousins 1936, *History of the London Discount Market*, London: Routledge.
- Kiyotaki, Nobuhiro and Randall Wright 1989, 'On Money as Medium of Exchange', *Journal of Political Economy*, 97(4): 927–54.
- 1991, 'A Contribution to the Pure Theory of Money', *Journal of Economic Theory*, 53(2): 215–35.
- Knapp, Georg F. 1924 [1905], *The State Theory of Money*, London: Macmillan.
- Krueger, Malte 2002, 'E-money Regulation in the EU', in *E-Money and Payment Systems Review*, edited by R. Pringle and M. Robinson, London: Central Banking.
- Lane, Frederic and Reinhold Mueller 1985, *Money and Banking in Medieval and Renaissance Venice*, vols. 1, 2, Baltimore, MD: Johns Hopkins University Press.
- Lapavitsas, Costas 1991, 'The Theory of Credit Money: A Structural Analysis', *Science and Society*, 55(3): 291–322.
- 1992, 'A Model of Money Hoard Formation in the Circuit of Capital', Working Paper No. 8, School of Oriental and African Studies, University of London, March.
- 1994, 'The Banking School and the Monetary Thought of Karl Marx', *Cambridge Journal of Economics*, 18(5): 447–61.
- 1996, 'The Classical Adjustment Mechanism of International Balances: Marx's Critique', *Contributions to Political Economy*, 15(1): 63–79.
- 1997, 'Two Approaches to the Concept of Interest-bearing Capital', *International Journal of Political Economy*, 27(1): 85–106.
- 2000, 'Money and the Analysis of Capitalism: The Significance of Commodity Money', *Review of Radical Political Economics*, 32(4): 631–56.

- 2003, *Social Foundations of Markets, Money and Credit*, London: Routledge.
- 2005a, 'The Emergence of Money in Commodity Exchange, or Money as Monopolist of the Ability to Buy', *Review of Political Economy*, 17(4): 549–69.
- 2005b, 'The Social Relations of Money as Universal Equivalent: A Response to Ingham', *Economy and Society*, 34(3): 389–403.
- 2006, 'Power and Trust as Constituents of Money and Credit', *Historical Materialism*, 14(1): 129–54.
- 2013, *Profiting without Producing: How Finance Exploits Us All*, London: Verso.
- Lapavitsas, Costas and Paulo Dos Santos 2008, 'Globalization and Contemporary Banking: On the Impact of New Technology', *Contributions to Political Economy*, 27: 31–56.
- Lapavitsas, Costas and Alfredo Saad-Filho 2000, 'The Supply of Credit Money and Capital Accumulation: A Critical View of Post-Keynesianism', *Research in Political Economy*, 18: 309–33.
- Lavoie, Don 1986, 'Marx, the Quantity Theory, and the Theory of Value', *History of Political Economy*, 18(1): 155–70.
- Lavoie, Mark and Mario Seccareccia 2001, 'Post-Keynesian and Marxist Economics: Twins or Distant Cousins?', paper presented at the Progressive Economics Forum, Canadian Economics Association, May–June, McGill University, Montreal.
- Leland, Hayne and David Pyle 1977, 'Informational Asymmetries, Financial Structures and Financial Intermediation', *Journal of Finance*, 32(2): 371–87.
- Lefebvre, E. 1894, 'The Assignats', *Journal of Political Economy*, 2(2): 179–202.
- Levi-Strauss, Claude 1969 [1949], *The Elementary Structures of Kinship*, Boston, MA: Beacon Press.
- 1987 [1950], *Introduction to the Work of Marcel Mauss*, London: Routledge & Kegan Paul.
- Lianos, Theodore 1987, 'Marx on the Rate of Interest', *Review of Radical Political Economics*, 19(3): 34–55.
- Lipietz, Alain 1983, *The Enchanted World: Inflation, Credit and the World Crisis*, London: Verso.
- Luxemburg, Rosa 1951, *The Accumulation of Capital*, London, Routledge & Kegan Paul.
- Luxemburg, Rosa and Nikolai Bukharin 1972, *Imperialism and the Accumulation of Capital*, edited by K. Tarbuck, London: The Penguin Press.
- Malinowski, Bronislaw 1922, *Argonauts of the Western Pacific*, London: George Routledge & Sons.
- 1926, *Crime and Custom in Savage Society*, London: Routledge & Kegan Paul.
- 1929, *The Sexual Life of Savages*, London: Routledge & Kegan Paul.
- 1965 [1935], *Coral Gardens and Their Magic, Volume I: Soil Tilling and Agricultural Rites in the Trobriand Islands*, Bloomington, IN: Indiana University Press.
- Mandel, Ernest 1968, *Marxist Economic Theory*, London: Merlin.

- Markose, Sheri and Yiing Jia Loke 2003, 'Network Effects on Cash-Card Substitution in Transactions and Low Interest Rate Regimes', *Economic Journal*, 113(April): 456–76.
- Marx, Karl 1969, *Theories of Surplus Value*, Part II, Moscow: Progress Publishers/Lawrence and Wishart.
- 1970 [1859], *Contribution to the Critique of Political Economy*, Moscow: Progress Publishers.
- 1973 [1939], *Grundrisse*, London: Penguin/New Left Review.
- 1976a [1847], *The Poverty of Philosophy*, in *Marx-Engels Collected Works*, Volume 6, London: Lawrence & Wishart.
- 1976b [1867], *Capital*, Volume I, London: Penguin/New Left Review.
- 1978 [1885], *Capital*, Volume II, London: Penguin/New Left Review.
- 1981 [1894], *Capital*, Volume III, London: Penguin/New Left Review.
- 1983, *Marx-Engels Collected Works*, Volume 40, London: Lawrence & Wishart.
- 1987, *Marx and Engels Collected Works*, Volume 29, Moscow: Progress Publishers.
- Mason, Will 1956, 'The Stereotypes of Classical Transfer Theory', *Journal of Political Economy*, 64(6): 492–506.
- 1957, 'Ricardo's Transfer Mechanism Theory', *Quarterly Journal of Economics*, 71(1): 107–15.
- Mauss, Marcel 1954/1990 [1925], *The Gift*, London: Routledge & Kegan Paul.
- Mayer, Colin 1987, 'The Assessment: Financial Systems and Corporate Investment', *Oxford Review of Economic Policy*, 3(4): i–xvi.
- Mayer, Thomas 1980, 'David Hume and Monetarism', *Quarterly Journal of Economics*, 95(1): 89–101.
- Menger, Carl 1892, 'On the Origin of Money', *Economic Journal*, 2(2): 239–55.
- 1981 [1871], *Principles of Economics*, New York: New York University Press.
- Messori, Marcello 2004, 'Credit and Money in Schumpeter's Theory', in *Essays in Honour of Augusto Graziani*, edited by R. Arena and N. Salvadori, Aldershot: Ashgate.
- Mill, John Stuart 1965 [1848], *Principles of Political Economy*, Toronto: University of Toronto Press.
- Mises, Ludwig von 1953 [1934], *The Theory of Money and Credit*, Appendix A: 'On the Classification of Monetary Theories', London: Cape.
- Morawczynski, Olga and Gianluca Miscione 2008, 'Examining Trust in Mobile Banking Transactions: The Case of M-PESA in Kenya', *Social Dimensions of Information and Telecommunications Policy*, 282: 287–98.
- Morgan, Donald 1994, 'Bank Credit Commitments, Credit Rationing, and Monetary Policy', *Journal of Money, Credit, and Banking*, 26(1): 87–101.
- Morgan, Edward Victor 1943, *The Theory and Practice of Central Banking, 1797–1913*, Cambridge: Cambridge University Press.
- Moseley, Fred (ed.) 2005, *Marx's Theory of Money*, Basingstoke: Palgrave Macmillan.

- Murray, Patrick, 2005, 'Money as Displaced Social Form: Why Value Cannot be Independent of Price', in *Marx's Theory of Money*, edited by F. Moseley, Basingstoke: Palgrave Macmillan.
- Niehans, Jurg 1969, 'Money in a Static Theory of Optimal Payment Arrangements', *Journal of Money, Credit and Banking*, 1(4): 706–26.
- 1978, *The Theory of Money*, Baltimore, MD: Johns Hopkins University Press.
- Nishimura, Shizuya 1971, *The Decline of Inland Bills of Exchange in the London Money Market, 1855–1913*, Cambridge: Cambridge University Press.
- North, Douglass C. 1981, *Structure and Change in Economic History*, New York: W.W. Norton.
- 1990, *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press.
- North, Peter 2006, *Alternative Currencies as a Challenge to Globalisation? A Case Study of Manchester's Local Currency Networks*, London: Ashgate.
- 2007, *Money and Liberation: The Micropolitics of Alternative Currency Movements*, Minneapolis, MN: University of Minnesota Press.
- O'Driscoll, Gerald 1986, 'Money: Menger's Evolutionary Theory', *History of Political Economy*, 18(4): 601–16.
- Oh, Seonghwan 1989, 'A Theory of a Generally Acceptable Medium of Exchange and Barter', *Journal of Monetary Economics*, 23(1): 101–19.
- Ostroy, Joseph and Ross Starr 1990, 'The Transactions Role of Money', in *Handbook of Monetary Economics*, edited by B. Friedman and F. Hahn, Amsterdam: Elsevier Science Publishers.
- Panico, Carlo 1980, 'Marx's Analysis of the Relationship between the Rate of Interest and the Rate of Profit', *Cambridge Journal of Economics*, 4(4): 363–78.
- 1987, *Interest and Profit in the Theories of Value and Distribution*. London: Macmillan.
- 1988, 'Marx on the Banking Sector and the Interest Rate: Some Initial Notes for a Discussion', *Science and Society*, 52(3): 310–25.
- Parry, Jonathan 1986, 'The Gift, the Indian Gift and the "Indian Gift"', *Man* (New Series), 21(3): 453–73.
- Parry, Jonathan and Maurice Bloch (eds.) 1989, *Money and the Morality of Exchange*, Cambridge: Cambridge University Press.
- Pelzman, Morris 1986, 'The Bullionist Controversy Revisited', *Journal of Political Economy*, 94(4): 745–62.
- 1987, 'On a Controversial Passage in Hume', *Journal of Political Economy*, 95(2): 224–89.
- Polanyi, Karl 1944, *The Great Transformation*, Boston, MA: Beacon Press.
- Polanyi, Karl, Conrad Arensberg and Harry Pearson (eds.) 1957, *Trade and Markets in Early Empires*, Glencoe, IL: The Free Press.

- Porteous, David 2006, *The Enabling Environment for Mobile Banking in Africa*, Report Commissioned by Department for International Development (DFID), retrieved from: <http://www.bankablefrontier.com/assets/ee.mobil.banking.report.v3.1.pdf>
- Radcliffe-Brown, Alfred Reginald 1950, 'Introduction', in *African Systems of Kinship and Marriage*, by A.R. Radcliffe-Brown and C. Daryll Forde, London: Oxford University Press.
- Reuten, Geert and Michael Williams 1989, *Value Form and the State*, London: Routledge.
- Ricardo, David 1951a [1810], 'The High Price of Bullion', in *The Works and Correspondence of David Ricardo*, edited by Piero Sraffa and Maurice Dobb, London: Macmillan.
- 1951b [1810], 'First Reply to "A Friend to Banknotes"', in *The Works and Correspondence of David Ricardo*, edited by Piero Sraffa and Maurice Dobb, London: Macmillan.
- 1951c [1811], 'Reply to Bosanquet', *The Works and Correspondence of David Ricardo*, edited by Piero Sraffa and Maurice Dobb, Cambridge: Cambridge University Press.
- 1951d [1816], 'Proposals for an Economical and Secure Currency', in *The Works and Correspondence of David Ricardo*, edited by Piero Sraffa and Maurice Dobb, Cambridge: Cambridge University Press.
- 1951e [1817], 'The Principles of Political Economy and Taxation', in *The Works and Correspondence of David Ricardo*, edited by Piero Sraffa and Maurice Dobb, Cambridge: Cambridge University Press.
- 1951f, 'Letters', *The Works and Correspondence of David Ricardo*, edited by Piero Sraffa and Maurice Dobb, Cambridge: Cambridge University Press.
- Robinson, Joan 1966 [1942], *An Essay on Marxian Economics*, London: Macmillan.
- Rogoff, Kenneth 1998, 'Blessing or Curse? Foreign and Underground Demand for Euro Notes', *Economic Policy*, 13(26): 263–303.
- Rosdolsky, Roman 1977, *The Making of Marx's Capital*, London: Pluto Press.
- Rubin, Isaak Ilich 1972, *Essays in Marx's Theory of Value*, Detroit, MI: Black and Red.
- Sahlins, Marshall 1972, *Stone Age Economics*, London: Tavistock Publications.
- Samuelson, Paul 1958, 'An Exact Consumption-Loan Model with or without the Social Contrivance of Money', *Journal of Political Economy*, 66(6): 467–82.
- Sanucci, Valeria 1989, 'The Establishment of a Central Bank: Italy in the 19th Century', in *A European Central Bank?*, edited by Marcello De Cecco and Alberto Giovannini, Cambridge: Cambridge University Press.
- Sayers, Richard 1953, 'Ricardo's Views on Monetary Questions', in *Papers in English Monetary History*, edited by Thomas S. Ashton and Richard Sayers, Oxford: Oxford University Press.
- Schaps, David 2004, *The Invention of Coinage and the Monetization of Ancient Greece*, Ann Arbor, MI: University of Michigan Press.

- Schumpeter, Joseph 1934 [1912], *The Theory of Economic Development*, Cambridge, MA: Harvard University Press.
- 1954, *History of Economic Analysis*, Oxford: Oxford University Press.
- Sekine, Tomohiko 1997, *An Outline of the Dialectic of Capital*, London: Macmillan.
- 1999, 'Marxian Theory of Value: An Unoist Approach', *Chiiki Bunseki, Aichi Gakuin*, 37(2): 99–136.
- 2009, 'Arthur on Money and Exchange', *Capital and Class*, 33(3): 33–57.
- Seligman, Edwin R.A. 1903, 'On Some Neglected British Economists', *Economic Journal*, pt. I, 13: 335–63 (September); pt. II, 13: 511–35 (December).
- Shell, Marc 1995, *Art and Money*, Chicago, IL: University of Chicago Press.
- Simmel, Georg 1978 [1900], *The Philosophy of Money*, London: Routledge and Kegan Paul.
- Skaggs, Neil 1991, 'John Fullarton's Law of Reflux and Central Bank Policy', *History of Political Economy*, 23(3): 457–80.
- Smith, Adam 1904 [1776], *The Wealth of Nations*, edited by E. Cannan, London: Methuen.
- Sohn-Rethel, Alfred 1978, *Intellectual and Manual Labour*, London: Macmillan.
- Staley, Charles 1976, 'Hume and Viner on the International Adjustment Mechanism', *History of Political Economy*, 8(2): 252–65.
- Steuart, James 1805 [1767], 'An Inquiry into the Principles of Political Economy', London: T. Cadell and W. Davies.
- 1966 [1767], *An Inquiry into the Principles of Political Economy*, Volumes 1 and 2, edited by Andrew Skinner, Edinburgh: Oliver and Boyd for the Scottish Economic Society.
- 1995 [1767], *An Inquiry into the Principles of Political Economy*, Vols. 1, 2, 3, 4, in *Works, Political, Metaphysical, and Chronological, of the Late Sir James Steuart*, London: Routledge.
- Stiglitz, Joseph 1994, 'The Role of the State in Financial Markets', in *Proceedings of the World Bank Annual Conference on Development Economics 1993*, Washington, DC: World Bank.
- Stix, Helmut 2003, 'How do Debit Cards Affect Cash Demand? Survey Data Evidence', Working Paper 82, Oesterreichische Nationalbank.
- Strathern, Marilyn 1988, *The Gender of the Gift*, Berkeley, CA: University of California Press.
- Thomas, Nicholas 1991, *Entangled Objects: Exchange, Material Culture, and Colonialism in the Pacific*, Cambridge, MA: Harvard University Press.
- Thornton, Henry 1939 [1802], *An Enquiry Into the Nature and Effects of the Paper Credit of Great Britain*, London: George Allen & Unwin.
- Tooke, Thomas 1838, *A History of Prices and of the State of Circulation*, Vols. 1 and II, London: Longman & others.

- 1840, *A History of Prices and of the State of Circulation*, Vol. III, London: Longman & others.
- 1848, *A History of Prices and of the State of Circulation*, Vol. IV, London: Longman & others.
- 1959 [1844], *An Inquiry into the Currency Principle*, London: University of London.
- Tooke, Thomas and William Newmarch 1857, *A History of Prices and of the State of Circulation*, Vols. v and vi, London: St. Martin's Press.
- Townsend, Robert 1979, 'Optimal Contracts and Competitive Markets with Costly State Verification', *Journal of Economic Theory*, 21(2): 265–93.
- Uno, Kozo 1980, *Principles of Political Economy*, translated by T. Sekine, Atlantic Highlands, NJ: Humanities.
- Valeri, Valerio 1994, 'Buying Women but Not Selling Them: Gift and Commodity Exchange in Huaulu Alliance', *Man (New Series)*, 29(1): 1–26.
- Vilar, Pierre 1976, *A History of Gold and Money, 1450–1920*, Atlantic Highlands, NJ: Humanities Press.
- Viner, Jacob 1924, *Canada's Balance of International Indebtedness, 1900–1913*, Cambridge, MA: Harvard University Press.
- 1937, *Studies in the Theory of International Trade*, New York: Harper.
- 1991, *Essays in the Intellectual History of Economics*, edited by Douglas Irwin, Princeton, NJ: Princeton University Press.
- Wallace, Neil 1980, 'The Overlapping Generations Model of Fiat Money', in *Models of Monetary Policy*, edited by J. Kareken and N. Wallace, Minneapolis, MN: Federal Reserve Bank of Minneapolis.
- Walras, Leon 1954 [1874], *Elements of Pure Economics*, London: Allen & Unwin.
- Watanabe, S. 1984, 'Jigane ronso. Tsuka ronso no kenkyu', *Hosei Daigaku no Shuppansa*.
- Weber, Max 1968 [1922], *Economy and Society: An Outline of Interpretive Sociology*, 2 volumes, edited by G. Roth and C. Wittich, New York: Bedminster Press.
- Weeks, John 1981, *Capital and Exploitation*, Princeton, NJ: Princeton University Press.
- Weiner, Annette B. 1985, 'Inalienable Wealth', *American Ethnologist*, 12(2): 52–65.
- 1992, *Inalienable Possessions: The Paradox of Keeping-While-Giving*, Berkeley, CA: University of California Press.
- Werveke, Hans van 1934, 'Monnaie de Compte et Monnaie Réelle', *Revue Belge de Philologie et d'Histoire*, XIII(1–2): 123–52.
- White, Lawrence 1984, 'Competitive Payments Systems and the Unit of Account', *American Economic Review*, 74(4): 699–712.
- Wicksell, Knut 1935 [1905], *Lectures on Political Economy*, 2 Vols., London: Routledge.
- Williamson, Stephen 1986, 'Costly Monitoring, Financial Intermediation, and Equilibrium Credit Rationing', *Journal of Monetary Economics*, 18(2): 159–79.

- Wolfson, Marty 1988, 'Comment: Marx, the Quantity Theory, and the Theory of Value', *History of Political Economy*, 20(1): 137–40.
- Wray, Randall 1990, *Money and Credit in Capitalist Economies*, Aldershot and Brookfield: Edward Elgar.
- 1998, *Understanding Modern Money: The Key to Full Employment and Price Stability*, Cheltenham: Edward Elgar.
- 2000, 'Modern Money', in *What is Money?*, edited by J. Smithin, London: Routledge.
- (ed.) 2004, *State and Credit Theories of Money: The Contributions of A. Mitchell Innes*, Cheltenham: Edward Elgar.
- Zelizer, Viviana 2000, 'Fine Tuning the Zelizer View', *Economy and Society*, 29(3): 383–9.
- 1994, *The Social Meaning of Money*, New York: Basic Books.
- Žižek, Slavoj 1989, *The Sublime Object of Ideology*, London: Verso.