Article

Marx on Money, Debt, and the Management of Accumulation

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ABSTRACT

This article offers a Marxist analysis of forms of value in capitalist economies, and their implications for accumulation, (in)stability, and economic policy. The study argues, first, that there is an intrinsic tendency towards a growing complexity of value forms in capitalism. Examination of the development of these forms of value helps to map the contradictions of accumulation at increasingly complex levels of analysis, and trace the emergence of specifically financial forms of instability and crisis. Second, state management of accumulation through fiscal and monetary policy and the domestic public debt are essential for economic stability, but their effectiveness remains limited, and crises may be transformed or postponed, but not always avoided. Third, monetary and financial structures, their relationship with production, and capacity to stabilise (or destabilise) accumulation are historically and institutionally specific. Fourth, government policy can affect the level and composition of output and employment, and the distributional and other outcomes of accumulation. **Keywords:** Money, credit, fictitious capital, monetary policy, domestic public debt.

1. Introduction

Professor Akira Matsumoto has given an important contribution to the development of Marxist approaches to money, credit, and monetary policy. It is therefore fitting that this article, written in his honour, should focus on this topic. The article examines the logic (not the history) of the emergence of complex forms of value in capitalist economies, as part of a long-term research agenda drawing upon Saad-Filho (2002, ch. 8) and subsequent works. This article focuses on the following concepts: money, capital, credit, interest-bearing capi-

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tal (IBC), fictitious capital, the domestic public debt (DPD), and macroeconomic management through monetary and fiscal policy. Examination of these aspects of capital (ism) can offer valuable insights supporting Marxian critiques of contemporary (financialised) capitalism, and the role and limitations of economic policy.

The argument is developed in seven sections. This introduction is the first. The second offers a brief account of Marx's theory of money, and reviews the distinction between the circulation of money as money (Type 1) and the circulation of money as capital (Type 2). The third explains IBC, the credit system, and the determination of the interest rate. This account of credit relations shows that dualist analyses separating 'real production' from the 'financial sphere' are misguided. Production and finance are integrated across institutions, markets, assets, regulations and policies; however, their interaction can lead to destabilising outcomes. The fourth explains the emergence of fictitious capital, the capital markets and the financial system. This section also suggests that there is an intrinsic (structural) tendency towards financialisation in capitalism. The fifth examines three modalities of state finance and their implications for accumulation, financial development and the circulation and appropriation of value: taxation, monetisation of deficits, and the DPD. The sixth reviews the necessity of state management of the accumulation of capital, the scope for fiscal and monetary policy, and their macroeconomic consequences, focusing on the DPD. The final section summarises the article and offers relevant conclusions.

The article stresses that there is a tendency towards the increasing complexity of the forms of value in Marx's value theory, at three levels: the growing complexity of the mediations in the determination of prices by labour time in production; the growing complexity of the mediations between the performance of labour and the rhythm of accumulation; and the growing complexity of the mediations between the imperatives individual capitals and the accumulation of capital as a whole which, increasingly, must involve financial circuits. The consequence is the growing complexity of the forms of crisis as capitalism develops, and need for increasingly intricate forms of management of the process of accumulation by the capitalist state.

2. The Circulation of Money

In the Marxian literature, money is both measure of value and means of circulation, and it performs the functions of means of payment, store of value, and international money. Several instruments can perform one or more of these functions, for example notes and coins, debit and credit cards, certificates of deposit, treasury bills and foreign currency. In practice, these instruments are arranged in a hierarchy with 'money proper' at the pinnacle, as the only instrument that can serve across all functions, be exchanged for any asset,

19

and settle all transactions, and other monetary (more or less 'liquid') assets occupying possibly shifting positions down that hierarchy.

Marx distinguishes between the circulation of *money as money* (Circulation Type 1) and the circulation of *money as capital* (Circulation Type 2).

Money circulates as money when it is spent with no expectation of return. This includes the expenditure of revenues to buy goods and services for unproductive (i.e., non-profit-making) consumption (for example, the expenditure of wages or the revenues of petty commodity production, and routine government spending), and unrequited transfers (e.g., gifts, tax payments, or the repayment of consumer loans). This type of expenditure can be represented by simple commodity exchange, C-M-C, where C stands for commodities with equal value and different use values, and M is money.

Money circulates as capital when it is advanced with the expectation of profit, that is, with the goal of either producing surplus value, or capturing it in the sphere of exchange (Marx 1981, p. 575). The creation of value can be represented by the circuit of industrial capital,

$$M - C < \stackrel{MP}{LP} \cdots P \cdots C' - M'$$

where MP is means of production (land, buildings, machines, unprocessed goods, and so on), LP is labour power, $\cdots P \cdots$ is production, and M'>M. In turn, the capture of value in exchange can be represented by the circuit of IBC, M-M' (see section 3).

When a capitalist purchases LP and MP, this is Circulation Type 2 because it is driven by the desire for profits. However, while the purchase of MP preserves money-capital, as it realises the advances of (generally capitalist) suppliers, the payment of wages destroys money-capital, as those resources become money as money in the hands of the workers (i.e., when they are paid, these funds shift into Circulation Type 1). When the workers spend their wages, they may realise advances of money-capital (e.g., if they buy products of capital at the supermarket, or repay their loans with commercial banks), or they might keep those resources in Circulation Type 1 (if they purchase commodities at the local farmers' market or pay taxes). Similarly, if the state neither extracts surplus value directly nor seeks to valorise its advances, public spending is unproductive and involves only money as money. This includes, in the first instance, purchases of consumables, equipment and services, buildings and maintenance, welfare transfers, salaries, pensions and the service of the DPD.

3. IBC and the Credit System

Marx's theory of IBC is based on the role of money as capital, and it concerns the bor-

rowing and lending taking place between the money capitalists and industrial or merchant capitalists. For Marx, IBC is credit extended to industrial, commercial (merchant) or money-dealing capitalist borrowers by specialised capitalist lenders, especially commercial, investment and savings banks (generally: the credit system). They provide money-capital for Circulation Type 2 (represented by the circuit of IBC, M-M), in order to create surplus value or to accelerate its realisation (Marx 1981, pp. 461, 477, 515–516). The loans must be repaid, plus interest, which must, by necessity, derive from surplus value, either extracted in production or captured in exchange. When the credit system supplies IBC, it deals in money as a special commodity with the use value of self-expansion; that is, the employment of IBC by the borrower can facilitate the production or realisation of value. Consequently, for Marx, those using IBC must be capitalists, specifically, rather than borrowers in general (Marx 1981, p. 743). In contrast, households, rentiers and the state can fund their unproductive expenditures (Circulation Type 1) with simple credit, which can be advanced by a wide variety of institutions. These loans are repaid out of revenue (wages, rent or taxes).

Marx (1981, pp. 687, 714) defines the interest rate as the unit price of borrowed moneycapital. The market price of produced commodities is rooted in the labour time socially necessary in production, and it is regulated by the law of value, that is, by real wages, technologies, input costs, turnover times, supply and demand, and by the pressure towards the intersectoral equalisation of profit rates. In contrast, Marx stresses that the price of IBC, a commodity that exists only in the sphere of exchange, is 'irrational' or 'accidental': interest is a share of the surplus value produced with the assistance of borrowed capital, and the interest rate is determined contingently by the regulatory, institutional and market relationships between lenders and borrowers. There is neither a 'natural' rate of interest, nor an economic law governing its movements. Differences between rates of interest in borrowing and lending, bank fees and other charges are significant mechanisms through which IBC appropriates part of the surplus value produced. In turn, the payment of interest to the lender leaves in the hands of the borrower a residual, which Marx calls profit of enterprise. This will be appropriated by industrial and commercial capital as their 'own' return to investment.

IBC can emerge from various sources, especially temporary hoards deposited into the credit system, especially money as money held by workers and the state, and money-capital owned by industrial or commercial capitalists. Theses hoards can accumulate for different reasons, for example, time lags between receipts and payments, for precaution, and to fund investment. It follows that IBC is properly located at the level of the economy as a whole, rather than emerging from individual transactions between savers and investors or between lenders and borrowers that happen to be mediated by the banks for efficiency or other reasons.

It follows that, first, IBC draws upon the structural function of the loans in social reproduction, rather than the (infinitely diverse, often shifting, sometimes unrealised, frequently speculative, and potentially fraudulent) motivations or preferences of individual lenders and borrowers. Second, the outcome of each circuit (whether M-C-M' or M-M') depends upon the rhythm of accumulation at the social level (Marx 1981, pp. 566-567). Third, the contribution of IBC can speed up commodity circulation, reduce turnover times, and facilitate rapid accumulation; support larger investment projects, bolder technological advancements and more mergers and acquisitions than would be possible otherwise; and integrate different circuits of capital, as the credit system draws resources from everywhere and allocates IBC by socially determined criteria, which can include profitability, risk, interest rates and policy guidance, as well as economic fashions and speculative frenzies. In sum, increase in the size of capital, often achieved through borrowing, is one of the most important means of competitive accumulation.

Whatever the form and conditions taken by these transactions, IBC attaches itself through them to the reproduction of capital as a whole, representing a claim on surplus value that has yet to be produced. This claim can be expressed through transactions involving payments yet to be made, or the transformation of these claims into tradable assets in any number of ways. The expansion of IBC turns the credit system into the common source of money-capital for the class of capitalists, and the pool of IBC is managed by a cohort of professionals employed by the financial institutions, and working on behalf of capital in general (which may alternatively be called, here, capital as a whole). In class terms, the money capitalists control the supply of IBC, and the industrial capitalists borrow IBC to use as capital in production and are responsible for the functioning of capital over the industrial circuit, supervising production and, often, sale. To this division of the capitalist class corresponds a division of the surplus value it extracts. whereas the money capitalists receive interest, the industrial capitalists appropriate the profit of enterprise left over after the payment of interest.

For Marx, in IBC,

[a]ll particular forms of capital, arising from its investment in particular spheres of production or circulation, are obliterated \cdots [Capital] exists in the undifferentiated, selfidentical form of independent value, of money \cdots Here capital really does emerge, in the pressure of its demand and supply, as *the common capital of the class* \cdots [It appears] as a concentrated and organized mass, placed under the control of the bankers as representatives of the social capital \cdots The result is that, as far as the form of demand goes, capital for loan is faced with the entire weight of a class, as far as supply goes, it itself appears *en masse* as loan capital.

Through its control of IBC, the credit system operates as the regulatory arm of capital

in general: it regulates the flows of resources across the economy, determines the level and composition of investment, output, employment and trade, raises the rate of profit, and helps to equalise it across the economy. Even though the resources newly created by IBC are the property of specific capitalists, they come into being only because the social conditions of production have been transformed by IBC itself. With IBC, investment can become 100 independent of prior individual savings, and capital functions, effectively, as social property. By the same token, interest is no longer an individual overhead: it becomes part of the general costs of production, an opportunity cost for every capital, and the regulator of the prices of production (Saad-Filho 2002, ch. 8). Consequently, Marx (1981, pp. 567, 742) concludes that the credit system 'abolishes the private character of capital ... within the confines of the capitalist mode of production itself'.

Marx's ability to construct a theory of interest as opposed to profit is a distinguishing feature of his analysis (Fine and Saad-Filho 2016, pp. 133–136). In classical political economy, interest is a category introduced with little if any explanation, and the rate of interest oscillates around an arbitrary 'natural' rate for which there are no determinants other than supply of and demand for money. In neoclassical economics, most notably in the Fisherian theory of inter-temporal consumption and production, the rates of interest and profit are conceptually identical and, in equilibrium, quantitatively equal. Even in Keynesian economics, where monetary factors are specifically introduced, the rate of profit (represented by the marginal efficiency of capital) is equal to the rate of interest. While short-term expectations may lead the interest rate to a disequilibrium level, there is an underlying idea that there is an equilibrium full-employment interest rate. This divergence from Marx is intimately connected to the failure of Keynesian theory to differentiate between credit for accumulation and for consumption, except for the impact of multipliers on effective demand.

Marx not only categorises interest distinctively; he also locates it within the analytical structure of his economic thought, deriving interest from the competitive relations between two clearly distinguished fractions of the capitalist class. He does so by reference to the abstract tendencies and structures that he has identified for the capitalist economy; for example, for the rate of profit to be equalised between competing industrial and money-dealing capitals, for the credit system to become a key mechanism of competition and lever of accumulation, for money as capital to stand apart from other commodities, for idle hoards to be centralised in the banking system, and so on. These abstract considerations can be brought to bear on Marxist historical and empirical analyses of IBC and the specific financial structures in which it is embedded.

4. Fictitious Capital and the Financial System

Every investment brings an expected flow of returns that can take the form of profit, rent, dividends, interest or other payments. Conversely, any regular flow of value can be capitalised, potentially giving rise to a (possibly immaterial) income-generating asset that can be represented by a tradable title of ownership. Marx calls these titles of ownership, or paper claims to surplus value yet to be produced *fictitious capital*.

The capital that they represent is 'fictitious' not because it is invented speculatively, but because these claims replicate capital already deployed elsewhere, embody values already destroyed, or symbolise non-transferable or even non-existent assets. These paper titles are only indirectly associated with real accumulation: they can be created regardless of the underlying assets or the constraints of value-production, and their returns depend on claims on (surplus) value to be produced elsewhere. Finally, they emerge through a reversal of the law of value, by which the returns seem to create the income-generating assets, rather than vice-versa (Brunhoff 1998, p. 183).

Fictitious capital can take several forms, for example, shares, debt certificates, bonds and public securities and, at a further remove (often as claims on claims), futures contracts, CDOs and a myriad of derivatives. Two examples offer a template for the examination of most varieties of fictitious capital: shares and public securities.

Suppose, first, that a firm issues shares through an Initial Public Offering (IPO). The investors advance their money-capital to acquire tradable titles of ownership over the firm's capital (Circulation Type 2). At this point, the firm's capital seems to exist twice. It exists, first, as land, buildings, machines, technologies, inventories, brands, designs, and so on, that, in combination with labour, can generate a flow of output and, therefore, a stream of profits. Second, the firm's capital *also* seems to exist as shares, with the peculiarity that, unless they can marshal enough voting rights, the shareholders do not control the firm's real assets and cannot dispose of them: the shares are merely tradable claims on the firm's future profits, part of which will be distributed as dividends (Circulation Type 1). Correspondingly, the market value of the firm, represented by its aggregated share price, expresses the value of its real assets as well as its expected profit flows, which may fluctuate independently from each other and from the firm's output for all manner of (prospective or wholly speculative) reasons (Marx 1981, pp. 597, 608-609; see also Hilferding 1910, ch. 7).

The second case involves public securities (see section 5). In the simplest case, the state can fund its outlays, in part, by selling interest-bearing titles to banks and to other capital-¹³⁾ The money-capital exchanged for public securities (Circulation Type 2) is destroyed, as it becomes money as money to be spent by the state however the authorities see fit (Circulation Type 1). Marx stresses that, in contrast with shares, that generally represent productive assets, government securities do not represent any assets in particular: they are merely the ghost of public expenditures past, of whatever nature, and they declare the holder's claim on future social output through the taxes to be collected by the state. In the meantime, the buyers' money-capital is transformed into paper assets that can be traded in secondary markets. The market price of these government securities is determined by the capitalised value of the expected payments to their holders:

[Public securities] are capital only for the person who has bought them … They are not capital in themselves … [but] simply property titles which give the holder a claim to future surplus-value … The state has to pay its creditors a certain sum of interest each year for the capital it borrows. It this case the creditor cannot recall his capital … but can only sell the … title of ownership. The capital itself has been consumed, spent by the state. It no longer exists … [T]he capital from which the state's payment is taken as deriving, as interest, is illusory and fictitious. It is not only that the sum that was lent to the state no longer has any kind of existence … As far as the original creditor … is concerned, the share of the annual taxation he receives represents interest on his capital (Marx 1981, pp. 590, 595-596; see also pp. 598-599).

Since future interest rates-and the returns on fictitious capital-cannot be guaranteed *ex ante*, the price of these titles is inherently speculative (Marx 1981, p. 589): it is based on the underlying asset values (if any), expected macroeconomic variables, and the interactions and emerging beliefs of the traders ('the market'), which cannot be 'correct' in any objective sense. They prevail only because the traders themselves endorse them.

Despite these suggestions of artificiality, fictitious capital can influence real accumulation by changing the distribution of assets and income flows, shifting resources across Circulations Types 1 and 2, facilitating new investments, and financing production, consumption and speculation, not least through the wealth effect. As it gives production greater flexibility, fictitious capital can even dislocate or dilute the threat of crisis-just as it can create new sources of instability (see section 6).

The financial system comprises the credit system and the capital markets, or the institutions dealing in fictitious capital, including shares, public securities, claims on foreign exchange and key commodities, especially oil, metals, bullion and foodstuffs, and the markets for options and derivatives. The component parts of the financial system interact closely. The credit system mobilises resources, creates IBC *ex nihilo* and supplies bundles of claims for trading in the capital markets, which provide collateral for the entire economy, especially the financial institutions themselves. In turn, the capital markets amass investible funds and provide returns to all savers, while benefitting disproportionately the largest capitals.

As the financial system expands, it can draw idle sums of money as money and moneycapital into (possibly highly liquid) 'investment' in fictitious capital. In doing this, the financial system subsumes the hoarding function of money, integrates the circuits of capital, commands all forms of fictitious capital, and drives the capital markets, as it draws both resources and information from every firm and market and, increasingly, every citizen. As it does so, finance can trade claims based on different underlying assets with distinct returns, risks and maturities, seemingly offering the possibility of automatic valorisation of any advance, as if profit were an attribute of money, regardless of the realities of lumpy technologies, uncertain changes in relative prices and the challenges of managing unruly workers.

This is illusory because financial claims do not directly produce (surplus) value. In contrast with commodities and tangible means of production that, when purchased without the mediation of credit, appear only on the asset side of the balance sheet of social wealth, financial assets and bank loans have counterparts on the debit side: they appear simultaneously on the asset and the liability sides. Consequently, their accumulation cannot, in and of itself, create social wealth and, to the extent that running the financial system is costly, not least because of the remunerations involved, IBC and fictitious capital *destroy* value produced elsewhere (Marx 1981, p. 945). This does not imply that there is a negative relationship between the size of the financial system and the rate of accumulation for, as was shown above, credit and fictitious capital can also raise profitability by permitting productive activities that would otherwise not take place. Their net impact on accumulation depends on the institutional framework, and on circumstances that can be examined only concretely.

5. Public Finance and the DPD

State expenditures are essential to secure the political, administrative and infrastructural conditions for the accumulation of capital as a whole. These expenditures and their financing have unavoidable distributive implications, making them irreducibly political.

The financing of the state is based primarily on taxation, monetary expansion (seignorage) and the sale of securities. The most direct way for the state to cover its expenditures is to print inconvertible currency, but there is a risk of inflation in case of overissue (Saad-Filho 2002, ch. 8).

If the state taxes income, expenditures or wealth, the taxpayers must transfer resources to the Treasury. Given the definition of value of labour power as the costs of reproduction of the workforce, all taxes must ultimately derive from surplus value. It follows that taxa-

tion shifts resources from Circulation Type 2 to Type 1; that is, it drains the economy's pool of capital and, in principle, reduces its growth potential. Conversely, however, as the state spends money as money, these resources may become capital and foster economic growth. The impact of taxation and public spending on the rhythm and structure of accumulation depends on a myriad of variables that cannot be fully controlled by government policy, and the intended outcomes may be partly neutralised by hoarding, financial innovations and international capital flows.

Finally, if state spending is financed by the sale of securities, the buyers advance IBC in exchange for new fictitious capital. That IBC is converted into a public debt to be serviced, and its value is dispersed through (in principle, unproductive) public spending. From a social perspective, the DPD does not directly add value or increase the economy's capital stock: the bonds are liabilities for the state and assets for their holders, including banks, pension funds, firms and individual investors.

The financial institutions purchase and distribute public securities in exchange for fees and interest payments. These are not their only sources of profit through the DPD. Public securities are both safe and highly liquid, since the Central Bank holds gold, foreign currency and other reserves, and the state can levy taxes and print domestic currency at will. For these reasons, public securities are 'top quality' assets in bank balance sheets, and they can support the creation of new IBC, for example, by serving as collateral for the expansion of loans. In turn, these loans can fund both real and financial investment, bringing additional income to the banks.

The large size, liquidity, safety and systemic significance of the DPD turns the interest rates on these securities into the benchmark for the prices and yield curves of many types of fictitious capital. In this way, public policy-operating through the financial system-can influence the returns on real and financial investments (including different forms of money, debt and fictitious capital), the formation of prices of real and fictitious assets, the level and composition of output, employment and foreign trade, the (perception of) inflationary pressures, and the rate of profit of capital a whole (see section 6).

The DPD offers financial institutions, firms and wealthy individuals an instrument to help regulate their reserves, park funds temporarily available, obtain liquidity at short notice, and move seamlessly across different forms of fictitious capital. In doing this, the DPD also offers unparalleled scope for purely financial accumulation. Debt finance can also reduce taxation, protecting the mass of surplus value-although, in exchange, some of society's IBC must be transmogrified, on a strictly voluntary basis, into fictitious capital. This fictitious capital grants the state creditors claims upon a share of future tax revenues in the form of interest, drawing upon yet-to-be-produced surplus value. Those payments will convert money as money into money-capital, and replenish the stock of IBC: As with the stroke of an enchanter's wand, [the public debt] endows unproductive money with the power of creation and thus turns it into capital, without forcing it to expose itself to the troubles and risks inseparable from its employment in industry or even in usury. The state creditors actually give nothing away, for the sum lent is transformed into public bonds, easily negotiable, which go on functioning in their hands just as so much hard cash would. But furthermore, and quite apart from the class of idle *rentiers* thus created … the national debt has given rise to joint-stock companies, to dealings in negotiable effects of all kinds, and to speculation: in a word, to … gambling and the modern bankocracy (Marx 1976, p. 919).

The proliferation of loans and complex structures of claims atop a (comparatively) static value base, which must itself pay regular tribute to finance, distorts the price system. Over time, prices tend to become increasingly unable to support the co-ordination of production and investment. For example, changes in relative prices can be influenced more heavily by (speculative) movements of fictitious capital than by shifts in demand or technologies, and the absolute price level can change for similarly speculative reasons or through credit-fuelled demand booms or the wealth effect (Perelman 2008, pp. 26, 29). These transformations in production and accumulation through credit, finance and fictitious capital bring about new possibilities of crisis, predicated on the revaluation of fictitious capital.

Fictitious capital is completely real for the individual investor: it requires a capital advance, brings a stream of returns, and can be converted into money or other forms of capital or wealth. Thus, for the individual capitalist, deeper financial structures increase liquidity and promote real as well as financial investment. However, this cannot hold in general, since all investors cannot liquidate their assets simultaneously: liquidity requires the availability of buyers with hierarchically superior forms of money willing to settle at prices permitting the sellers to fulfil their own financial obligations, which is not always possible especially when paper titles of fictitious capital reach extraordinarily high prices or demand returns out of proportion with the production of new values. If the accumulating loans and the mass of fictitious capital can no longer be serviced, or if demand suddenly shifts because of unforeseen events or adverse turns in expectations, the price of fictitious capital can shift disproportionately because it lacks a value base.

Lack of demand can trigger the disorderly devaluation of financial claims as well as real assets. Debt remains unpaid, production is halted for lack of finance or markets, unemployment rises and inventories mount, destroying capital value and transferring wealth on a vast scale. As the financial institutions are closely interlinked and highly leveraged, and since their assets are mostly fictitious, they are especially vulnerable to liquidity crises and chains of defaults. These developments can look serious but they are often inconsequential, as they do not directly affect society's productive potential. At times, though, financial crises can have significant consequences for employment, social welfare and real accumulation. Their potential severity tends to increase with the size of the financial markets and their dominance over real accumulation.

Financial crises are 'naturally' resolved through the forcible realignment of real and financial accumulation, that is, some combination of asset devaluation (which can wreak havoc on individual balance sheets), socialisation (if the state realises fictitious values at their inflated prices; see section 6), or 'austerity' (forcibly devaluing commodities, especially labour power, to support the value of fictitious capital). In normal circumstances, these forms of resolution of the crisis will lay the foundations for renewed accumulation.

Marx's approach can capture the distributional implications of the DPD at two levels. At an abstract level, the DPD underpins the credit system and the functioning of the capitalist state. More concretely, the textbook arguments that state spending creates 'demand' in general, and that the DPD is a liability of society to itself (the so-called 'Ricardian equivalence') are misguided. Under the appearance of offering everyone opportunities to gain through financial investment, in return for the duty to share equally in the service of the DPD, the state deliberately imposes taxes below the level required to fund its own expenditures; it then funds the remainder by borrowing primarily from the wealthiest citizens, to whom it pays interest. It follows that public sector borrowing rewards the wealthy for owning assets that should have been confiscated from them, and that, instead of taxing the richest members of society, the government pays interest primarily to them. In this way, the DPD supports the centralisation of wealth in the hands of large capitalists and speculators, whose already vast fortunes expand through transfers from the public purse. In turn, indebted states have less policy space, since their choices are constrained by the humour of the financial markets.

This is why, from the point of view of capital, the DPD is the most desirable modality of state finance. In contrast, taxation compulsorily drains the mass of surplus value, while the monetisation of fiscal deficits bypasses the financial institutions entirely. This may help to explain the antipathy of finance towards monetisation, the capitalist dislike of taxation (at least until state spending realises some profits), and the universal applause which greets debt finance (at least while it is being serviced). Conversely, debt finance is disadvantageous for the state because this is the costliest modality of public finance, as it entails long-lasting repayment obligations.

In summary, the DPD is the foundation of capitalist finance and the keystone of the capital markets. It supports the institutions and processes that mobilise social resources, including the movements of money and capital across Circulation Type 1 and Circulation Type 2, as well as the creation, allocation and destruction of IBC and fictitious capital. In doing this, the DPD underpins both the *actual* emergence of capital in general through the financial system, and the management of accumulation by the state (see below).

6. The Scope and Limits of State Management of Accumulation

Any minimally sophisticated capitalist economy has a monetary system based on inconvertible money, backing up a financial system that creates credit, supplies IBC and trades a wide range of monetary assets and fictitious capital. The financial system concentrates, allocates, manages and represents capital as a whole; it also plays a key role funding the state. Most financial institutions are highly leveraged and closely linked together and to the state through complex chains of obligations. The largest institutions are, invariably, systemically important ('too big to fail'). The accumulation of capital in general is predicated on the stability of this arrangement, including the validation of the paper claims shuttling across the financial system.

The value relations in the economy and the chains of obligations attached to them, including the stocks and flows of IBC and fictitious capital, their composition, costs, rate of accumulation and other macroeconomic variables can be (imperfectly) managed by specialist state institutions, especially the Treasury, the Central Bank and the Ministry of Finance. They seek to regulate the credit system, the capital markets, the public finances (including the DPD), and manage the exchange rate and the conflicting claims of industrial capital, commercial capital, the rentiers, the workers and other groups. These are complex tasks, since finance is prone to instability because price formation in the markets for IBC and fictitious capital is relatively autonomous from fundamental value relations. Consequently, shifts in interest rates or financial asset prices can feed upon themselves and propagate instability, instead of converging towards any type of 'fundamental' values which, often, do not exist.

The DPD is one of the most important policy tools available to the state authorities. When the economy confronts financial instability or threats of uncontrolled devaluation and system-wide contraction, the state can change interest rates (that is, shift the price of IBC, the opportunity cost of capital and the pivot of the formation of prices of production); it can also trade public securities to transform surplus (underperforming) capitals into fictitious capital created by the state itself ('sterilisation'). In doing this, monetary and fiscal policy can guarantee private profits at collective expense.

It was shown above that public securities are usually the safest domestic financial assets, because the payment of interest and of the principal is guaranteed by the power of the state to levy taxes and to print money (and, in certain cases, by the foreign exchange reserves of the Central Bank). Partly for this reason, these securities are liquid and heavily traded, and the interest rate paid on them is an important benchmark for retail interest rates. In addition, purchases and sales of government securities in the open market ensure that state expenditures can be funded on a daily basis, and that financial and non-financial institutions or can rapidly invest funds only temporarily available, or obtain liquidity at short notice. The liquidity, safety and volume of the government securities support the widening and deepening of the financial markets, as well as financial system stability and flexibility of the accumulation of productive capital. In sum, government securities are a form of capital for their holders, whose valorisation is guaranteed by the state. They provide a basis for the financial system, and they are closely related to the process of accumulation of productive and financial.

The DPD is suited to the management of accumulation because changes in the discount rate and open market operations can reduce the risks of default, overproduction, speculation and inflation; resuscitate unviable fictitious capital and distressed financial institutions; shift real wages, the opportunity cost of investment and the level and structure of demand: change relative prices, the structure of financial claims, and the flows of money as money and money-capital; improve the allocation of real and financial capital, and stabilise the general rate of profit. In order to deliver these outcomes, the state offers to some capitalists a share in yet-to-be-produced surplus value, which will be channelled to them through the tax system. In exchange, those capitalists voluntarily surrender IBC or fictitious capital awaiting better opportunities for valorisation, so their losses can be socialised by public policy (Marx 1986, p. 405). Monetary policy interventions can be supplemented by fiscal policy, that can irrigate directly Circulation Type 1 (for example, through welfare payments) and Circulation Type 2 (through subsidies or purchases from capitalist enterprises). In this sense, the DPD is a private asset and, more specifically, (fictitious) capital directly created by the state. This approach is sharply distinct from the mainstream, which sees the DPD as debt, whose growth is at the best of times a necessary evil and, often, the inevitable outcome of avoidable government profligacy. In short, even though the state does not directly produce value, it can deploy policy tools to secure profitability elsewhere, and to reduce the risks of overproduction, underconsumption and disproportion; that is, to manage capital accumulation.

Despite the stabilising potential of monetary and fiscal policy, the authorities have only limited scope to neutralise the overaccumulation of capital through the regulation of shortterm interest rates and the exchange of state-issued fictitious capital for surplus IBC. Even an inconvertible money system with floating exchange rates, that maximises the scope for policy intervention, cannot ensure financial and macroeconomic stability at all times. Stabilisation policies are costly and, regardless of expense, the state remains unable to create surplus value directly, regulate real wages precisely, resolve all social conflicts, honour all financial claims, guarantee financial stability, keep inflation always on target or, much less, bypass the balance of payments constraint.

Changing current or prospective interest rates in different countries and speculation on

future exchange rates invite arbitrage across domestic and foreign borrowing, which is possible only to the privileged, and whose sterilisation carries fiscal costs. In turn, the availability of competing outlets for IBC in different countries reduces the policy space for each state through the limitation of their ability to set interest rates, taxes or to public spending priorities, enforcing so-called 'market discipline'. In contrast, low interest rates can trigger speculative bubbles that burst when the accumulated claims exceed the capacity of society to service them, leading to disorderly devaluations across financial and industrial capital, economic underperformance, unemployment and social deprivation.

Monetary policy not only has limited effectiveness. To the extent that it does work, it supports an exclusionary mode of production and fosters a concentrating dynamic of accumulation predicated on despoliation, speculation, fraud, and all manner of transfers of surplus value. This financialised form of accumulation centres on the protection of fictitious capital above all else, skewing the incentive structure and systematically rewarding the most parasitic fractions of capital. In other words, the state management of accumulation unavoidably delivers disproportionate rewards for risk-taking, guarantee wholly fictitious claims on value and wealth at public expense, promoting speculation, and skew the incentive structure towards extractive forms of accumulation. Ultimately, then, the successful management of accumulation tends to support wasteful investment, reduce the rate of productivity growth, compromise efficiency and reduce overall profitability, and reinforce the capitalist tendency towards the financialisation of accumulation. In the meantime, the workers can become restive because of the reduced threat of employment and the systemic inclination to accommodate their demands in order to protect growth and employment.

In sum, while activist monetary and fiscal policies can deliver-within limits-macroeconomic stability, their successes eventually promote the overaccumulation of capital as a whole. As the economy grows, disproportions and bottlenecks emerge, financial structures become more fragile, and prices tend to increase. The contradictory demands of growth and stability, distributional and other conflicts, the balance of payments constraint and other limits to state policy can lock the economy into a stabilisation-speculation trap that can be difficult to manage, and that tends to promote economic stagnation. Eventually, crises can erupt either spontaneously, or because contractionary policies have been imposed in order to limit these economic imbalances.

In summary, Marx's analysis shows how the state can influence the structure and rhythm of accumulation; it also shows that it can lead to outcomes that are never entirely predictable, and that can be destabilising. The ensuing tensions and displacements can help to explain disputes over the regulatory and institutional architecture, the choice of industrial, wage, exchange rate and other policies, and the development of the crisis tendencies inherent in capitalism. Marx's theory of value provides a unique window upon the processes of growth, instability and crisis, and upon policy management in capitalism, through its dis-

tinctive focus on the tensions and displacements between the value system and the price system, by means of fictitious capital. This approach can help to inform the critique of political economy, as much as it can support the analysis of concrete economic policies.

7. Conclusion

This article reconstructs systematically the monetary, credit and financial systems in Marx's value theory. These categories are essential for the analysis of interest, the formation of market prices, fictitious capital, financialisation and the management of accumulation by fiscal and monetary policy, where the domestic public debt plays a pivotal role. Investigation of these issues is centrally important for the study of contemporary capitalism.

The inquiry departs from the abstract concept of money as money, and it gradually incorporates money-capital and their distinctive forms of circulation, that Marx termed Type 1 and Type 2. This is followed by the systematic introduction of increasingly concrete concepts, especially credit, interest, interest-bearing capital, fictitious capital and the financial system. The contradictions of real and financial accumulation posit the need for state management of capitalist reproduction that, in turn, allows the examination of monetary and fiscal policy and their limitations.

The analysis is grounded upon the recognition of the ontological unity between three sets of institutions that are commonly examined separately, or even in opposition: the (financial) markets and the state, production and finance, and the structures and institutions in the financial system. Value analysis illuminates their mutually constituting relationships, and lends support to the claim that political economy approaches can be more informative than mainstream theories of money, finance and economic policy.

The development of capitalist production gives rise to IBC, the financial system, and fictitious capital. They tend to centralise the main sources of capital, and to manage the relationships between savers and investors, taxpayers and the state, and the economy and the rest of the world. In this way, finance supports the extraction of (surplus) value and helps to regulate output and employment. Finance also imposes the law of value through the general profit rate, supplies instruments allowing capital to hedge against risks and funds the public sector-but it also absorbs value produced elsewhere, concentrates income and wealth and creates specific forms of macroeconomic instability.

These tensions and displacements can trigger financial instability and devaluations of real and fictitious capital. They can be partly avoided, partly managed and partly deferred by monetary and fiscal policy, which aims to regulate Circulations Type 1 and 2, the supply of IBC and fictitious capital, and the formation of prices. Ultimately, however, successful regulation breeds overproduction and overaccumulation. That is, value analysis shows that capitalist economies are fundamentally unstable, and it can inform studies of the scope for successful macroeconomic management and its limits.

Analysis of the contradictions of capitalism at different levels of complexity, and examination of monetary and fiscal policy, distinct forms of state finance and their implications for distribution and stability can illuminate the sectoral and political consequences of each modality of accumulation, as well as their contradictions. They can be outlined in principle and examined in practice. These are essential tasks for political economy.

Endnotes:

- 1) This paper expands and develops the themes in Saad-Filho (2023).
- 2) 'Financialisation' includes mutually reinforcing tendencies towards: (a) the expansion of the financial system, gauged by the volume and complexity of the assets that it produces, accumulates and trades; (b) the transformation of the overaccumulation of financial assets into the typical form of overproduction, and (c) the imbrication of the state into the financial system. These tendencies are accompanied by countertendencies that can moderate, channel or even reverse the destabilising implications of financialisation. They can include regulation, capital exports, and compensatory monetary policies.
- Marx (1981, p. 492); see also Brunhoff (1976, ch. 2), Fine and Saad-Filho (2016, chs. 2–3), Itoh and Lapavitsas (1999, chs. 3–4), Rosdolsky (1977, part II) and Saad-Filho (2002, ch. 8).
- 4) See Marx (1976, pp. 247-257), Marx (1978, pp. 163-164), and Marx (1981, pp. 574-577, 592).
- 5) See Marx (1981, pp. 459-460, 464, 471-478, 502-503, 517-518, 570-571, 626-627, 638, 658, 741).
- 6) Marx (1981, pp. 455-457, 475-478, 480-504, 638-639, 644-645). See also Fine (2013-14, p. 52), and Itoh and Lapavitsas (1999, ch. 3).
- 7) These hoards are a 'precipitate' of the circulation process, see Marx (1981, pp. 432-437, 528-529, 570-571, 626-627, 638-639, 658, 670, 701-702, 706-707, 741-742).
- 8) Marx (1981, pp. 566-567, 570-571, 626-627, 638, 658, 741). See also Brunhoff (1978, p. 57).
- 9) Marx (1981, pp. 490-491); see also pp. 459-460.
- 10) '[T]he industrial capitalist does not 'save' his capital but rather disposes of the savings of others … [T]he credit that the reproductive capitalists give one another, and that the public give them, he makes into his own source of private enrichment. The final illusion of the capitalist system, that capital is the offspring of a person's own work and savings, is thereby demolished. Not only does profit consist in the appropriation of other people's labour, but the capital with which this labour of others is set in motion and exploited consists of other people's property, which the money-capitalist puts at the disposal of the industrial capitalist and for which he in turn exploits him' (Marx 1981, p. 640). See also pp. 368, 567, 569-570, 572, 678-679, 742-43.
- Marx (1981, pp. 459-461, 595-599, 608). See also Brunhoff (1976, pp. 95-96), Chesnais (2016, ch, 3), Durand (2017, ch. 3), Fine (2013-14), Hudson (2010) and, especially, Perelman (2008).
- 12) Marx also calls fictitious capital the credit money created through the multiplier, or the issue of notes ('tokens of value') beyond the bank's metal reserve (Marx 1981, p. 675). The most absurd form of fictitious capital is 'human capital', since labour power is neither alienable from its owner nor collateralisable (Brunhoff 1998, p. 183; Ricciardi 1985, pp. 8-9, 284).
- 13) For simplicity, it is assumed that the state has only domestic debt and no external liabilities.
- 14) Marx (1981, pp. 599-601); see also Chesnais (2004, p. 15), Hudson (2010) and Nesvetailova

(2006, p. 45). For a Marxist account of derivatives, see Bryan and Rafferty (2006), Guttman (1996) and Norfield (2012, 2014). Options and futures are examined by Parsons (1988). Henwood (1998, p. 13) rightly argues that 'fictitious capital... enables a whole class to own an economy's productive assets, rather than being bound to a specific property as they once were'.

- See Fine, Lapavitsas and Saad-Filho (2004). For a contrasting view, see Davanzati and Patalano (2017).
- 16) '[T]he global economy is bound together by a complex, hierarchical structure of financial assets of varying degrees of liquidity. By expanding, hedging, and diversifying their portfolios, financial dealers and bankers play a critical role in "knitting together" the various layers of that structure into a unified system. Yet … [w]hile every individual trader may feel liquid and safe, the system itself is not; as a consequence, it is inherently prone to distress and failure' (Nesvetailova 2006, p. 47; see also pp. 48, 51, Fine 2013-14 and Fine and Saad-Filho 2016, ch. 15).
- 17) 'Financial crises occur because imbalances build up between the financial system and the underlying macroeconomy-imbalances between stocks of financial assets and liabilities, on the one hand, and flows of national income, on the other-and they occur when these macroeconomic financial stock/income flow imbalances become unsustainable. The 'function' of financial crises and the economic contractions that they create is to remove these imbalances between the financial system and its macroeconomic "monetary base" (Rude 2005, p. 84). See also Marx (1981a, pp. 592, 625, 639, 645, 649, 667, 674, 678-679); Marx (1981b, p. 623); Brunhoff (1998, p. 185); Chesnais (2004, p. 47); Hudson (2010) and Perelman (2008, pp. 13, 24, 27).
- 18) For a detailed analysis, see Perelman (2008, pp. 29-31).
- 19) For Marx, '[p] ublic credit rests on confidence that the state will allow itself to be exploited by the wolves of finance' (Marx 1850). There is a close relationship between domestic and international financial developments concerning the DPD. For example, '[a]long with the national debt there arose an international credit system' (Marx 1976, p. 920), which imposes the supremacy of world money over national currencies.
- 20) Keynes (1936, p. 238) famously claimed that: 'It is not the ownership of the instruments of production which it is important for the State to assume. If the State is able to determine the aggregate amount of resources devoted to augmenting the instruments and the basic rate of reward to those who own them, it will have accomplished all that is necessary'.

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