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Title: Towards a Critical Framework: Government bonds as Titles of Fictitious Capital

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This paper contributes to the development of Marxian Economics expanding on the theorisation of titles of fictitious capital in Marx and on his discussion of government bonds. The paper argues that these titles do not represent real capital and further develops the idea that fictitious capital is the channel through which the dominance of interest bearing capital over other capitals occurs. It then puts forwards the argument that as a title of fictitious capital, government bonds are the most important tools whereby the state is able to intervene in the financial market. They are the keystone of these markets, the backbone of operations in the secondary market, and a source for financial accumulation, rather than a fortuitous aspect of state finance. The implication of this argument is two-fold: public debt can neither be avoided nor paid off in capitalist economies, and government bonds offer unparalleled scope for purely financial accumulation.

Keywords: fictitious capital, government bonds, public debt, Marx

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A Contribution to *Capital*, Volume III: Government Bonds as Titles of Fictitious Capital

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1. Introduction

Within more traditional discussions of public debt in the economic literature, bond-financed public debt is mostly examined via its impact upon aggregate demand (AD) and consequent effects on output. Within the Marxian tradition, which follows the macroeconomic dynamics debate as well, the public debt analysis is strongly influenced by the idea of an unproductive state, no matter what the state does or how it pays for its activities, with not so much emphasis or focus on elaborating the role of government bonds within the credit and financial system.

This paper aims to approach government bonds, and therefore public debt, from a different angle than that traditional discussions of public debt, one which is more appropriate considering the rise of the financialisation process since the 1970s.

In order to do so, this paper deploys a Marxist framework to understand government bonds. This framework explains the functionality of public debt within the credit and financial system based on the understanding of government bonds as titles of fictitious capital. Fictitious capital is a claim on property or revenue; it is the result of any stream of potential revenue being capitalised as an asset and then exchanged as interest-bearing capital (IBC). These titles of fictitious capital are crucial to the development and expansion of credit, the expansion and allocation of IBC, and the understanding of sources of instability and speculative booms in the economy.

As with any title of fictitious capital, government bond draws upon surplus value that is produced in society as a whole and is able to move seamlessly across the credit system playing and being used for different roles. In this particular case, value is transferred to the bondholders via the tax system, which allows for the wealth of the entire nation to back the credit of the state. From a social perspective, government bonds mean the creation of liabilities for the government and, at the same time, assets for the bondholders, which is a form of double-entry bookkeeping that connects the public and private spheres. The surplus value that is appropriated and the double-entry bookkeeping aspect guarantee future resources to finance the issue of national debt while providing a highly liquid and safe security to support private financial markets.

It is in this sense that the government bonds are one of the most important tools whereby the state can manage and intervene in financial markets. Essentially, these bonds become a means of intertemporal intermediation and ballast for the financial system as a whole, serving to provide liquidity for private markets and underwriting private credit to firms for the purposes of private profit. Through bonds, governments are able to intervene in the financial market and influence everything from liquidity and availability of capital to portfolio variation, returns on real and financial investment and price setting of real and fictitious assets, as well as contributing to speculation. From this perspective government bonds are the keystone of the financial markets.

Although the above role played by the government bonds may not be a surprise for many academic economists (see Gabor, 2016) or international institutions (see IMF and World Bank, 2014), the contribution of this article is to explain why and how government bonds are capable of playing this role, rather than the functionality itself in practice, as in the case of shadow banking. The theoretical systematisation of this role by the Marxian literature is still scant and needs more attention.

This is seen as crucial to both develop the Marxian literature on the topic and encourage changes on how public debt is taught and studied at undergraduate and research level. The discussion of government bonds as titles of fictitious capital moves away from the more conventional debate focusing on bond-financed government spending. It examines and emphasises the functions of government bonds in financial markets in terms of guaranteeing stability, liquidity and collateral for financial institutions.

Following this introduction, the paper is organised as follows. Section 2 briefly outlines the main categories necessary to understand Marx's credit system. Section 3 explains the emergence of fictitious capital. Section 4 discusses the role of fictitious capital in the credit system. In section 5 an account of government bonds is given, focusing on the support that bonds provide to private financial markets. Section 6 concludes.

2. The credit system and interest-bearing capital

Within the Marxian framework, capital is self-expanding value and assumes various specific forms (money, factor input or commodity) and functions undertaken by these forms.

The self expanding aspect relates to a capitalist exchange based on buying in order to sell dearer, where the circulation of commodities begins and ends with money, not commodities. At the beginning of the whole process there is money buying productive capital (labour power, means of production) for the specific purpose of producing surplus value. So money acts as capital or capital in a monetary form.

The circulation of capital, as put by Brunhoff (1976), implies that of money (p. 53). IBC[1] is the money that is employed, via credit relations, for this specific purpose of producing surplus value. It is money that is advanced as capital, and can be understood as a special type of commodity because it provides the use value of self-expansion for both lender and borrower simultaneously. The lender will appropriate interest, and the borrower will appropriate profit after the payment of interest has been deducted from the surplus value produced. Interest emerges, therefore, as a fraction of profit, and is part of the general costs of production. This leads to Marx having a theory of interest as opposed to profit, a distinguished feature of his analysis.

Essentially, money becomes a commodity. Its price is the interest rate, which bears no direct relation to any underlying production conditions.[2] With IBC, different from the circuit of industrial capital, which represents the unity of production and circulation, i.e., M – C… P … C' – M', we are looking at a circuit that looks like M – M', where the process of exploitation of labour is obscured and money appears to create more money (Marx, 1991, pp. 515-516).

The advance of money as money capital should not be confused with a situation of advance of credit in general, i.e., money as money. When IBC comes into the analysis it can be argued that Marx divides the capital functioning within exchange into merchant capital (commercial capital and money dealing capital - MDC) and IBC. Commercial capital and MDC do not produce surplus but they minimise the cost of circulating commodities and

[1] The interpretation of IBC within the Marxist literature is deeply polarised. See Lapavitsas (1997). This article subscribes to the view that is not the borrowing-relationship per se or the payment of interest that characterises the IBC but the use to which the loan is put, i.e., the loan must buy means of production, hires workers, and result in the production of profit.

[2] Material aspects of the reproduction of capital (technology, cost of the living of the working class) have no direct effect on the formation of interest rate. Characteristics of the credit and financial system, such as institutional structure, ability to mobile funds and so forth, are the determinants of flows and prices of credit, together with expectations of the future. That said, the payment of interest does depend on the successful expansion of production or profitable activity out of which the interest can be paid.

dealing with money for capital as a whole, respectively. So they have objective grounds to be remunerated out of the surplus value and on the same basis as industrial capital. These capitals are subject to competitive entry and exit, and, as consequence, to tendency to equalised profitability. IBC does produce surplus value and its remuneration arises out of the division of surplus plus into interest and 'profit of enterprise', so its return is not subject to tendency of profit equalisation.[3]

The existence of IBC draws on the same money accumulated through the sale of commodity capital as well as hoards of idle money from industrial and commercial capitalists, workers, the state or anyone else (Ito & Lapavitsas, 1999, p. 61, pp. 67-68). The credit relations as IBC reflect, on one side, the money capitalists (bankers, money-dealers and so forth) who control the supply of money to use as IBC, and, on the other side, the industrial capitalists who use the borrowed IBC in production

The key issue is that this money collected and centralised by the banking system and financial institutions in general gradually emerges, "in so far as it appears on the market, as not represented by the individual capitalist, not proprietor of this or that fraction of the mass of capital on the market, but rather as a concentrated and organized mass" (Marx, 1991, p. 491). Thus, in this market there is, in fact, the total available loan capital in general, and money is the commodity that that lenders and borrowers face one another to buy (Marx, 1991, p. 490). It is by no means possible to actually identify the money employed, via credit relations, as money as capital, IBC, or as money as money, hence Marx's definition of the pool of money that is centralised in financial institutions as loanable money capital (LMC).

All forms of lending involve interest (or a return) to be paid. The distinction between IBC and other forms of capital is logical; it is a distinction that makes clear when this lending draws its return on a wealth already existent in society or when draws on the expansion of that wealth. For capitalists financing production, however, it is irrelevant if the industrial capitalists manage to make a profit out of projects or not. Moreover, the competition for funds among capitalists leads to a standardisation of the loan contract. This form of loan contract also "obscures the source of interest as a part of surplus value, and makes it seem that interest is inherent to the money reserve itself" (Brunhoff and Foley, 2006, p. 197). Finally, for the

[3] Neither the surplus value nor interest is predetermined. They are both variable, as is the division between profit and interest (Fine, 2009, p. 12).

possessors LMC, “the origin of their incomes in the surplus value appropriated in capitalist production is obscured by the form these incomes take, which in this case appears to reflect specialized financial skills” (Brunhoff and Foley, 2006, p. 200).

Thus, the issue raised at its level of abstraction is not that the distinction among forms of capital is ambiguous in practice or that there is a level of uncertainty regarding the intentions of the borrowers. Rather, as capitalist production and credit systems develop, the idea of earning the current market interest rate (which will vary according to the riskiness and maturity of the loan) as inherent to money is reinforced. That is, the widespread existence of IBC itself “makes any definite and regular monetary revenue appear as the interest on a capital whether it actually derives from a capital or not” (Marx, 1991, p. 595).

The development of the credit system also means that the mobilising of resources, the development of credit relations, the monetisation of debts and advances of money capital are not only activities performed by banks and financial institutions in general. These institutions also engage on the money trade, having LMC available for this purpose (Brunhoff, 1976, p. 85). This is, according to Marx, the other side of credit system (Marx, 1991, p. 405). It refers to both the advance of IBC through the creation of contractual claims to property or revenue and also the circulation of debts in general and financial instruments in the system, which in turn gives rise to what Marx defines as capital markets, but today could be extended to what is broadly known as financial markets.

In the financial markets, there are various types of credits, such as commercial, financial and monetary, competing for monetary resources. Potently, all these credits are themselves a medium of circulation and, while most credits circulate in a circuit, i.e., these credits will eventually be cancel by a repayment, they all tend, as argued by Brunhoff (1976), to break out of that circulation, as they are themselves negotiable on the financial market (p. 91).

Yet, the basis of the circularity of credit operations must be found in the productive capitalist’s needs. Thus, although a quantitative division of profit can only shown empirically, Marx remains true to the pool of LMC resting on lender and borrowers facing one another and, therefore, on the qualitative difference between interest (money capitalists), deducted by lenders from the profit, and profit of enterprise (industrial capitalists). He also remains true to money capitalists and industrial capitalist playing entirety differently role in the reproduction process.

This poses, of course, some difficulties for Marx's theory of money and credit, and the logical distinction between the forms of capital in exchange and their returns. Difficulties that, from the perspective this article, are solved with the introduction of the *fictitious capital*[4] category. This type of capital is very peculiar and its definition can be extended to the various new techniques of claiming wealth on future payment, as it will be discussed in the next section.

3. Fictitious capital

For Marx, the development of the credit system leads to lending-borrowing relationships becoming investments in financial securities, such as bonds, shares or any kind of certificate that entitles the holder to a paper claim[5] on property or revenue. These securities are called fictitious capital and they can circulate independently of the value that it represents, as in the case of trade credit or monetised debts. This takes us back to the pool of LMC and the use to which the loan is put. That is,

> this paper claim on the value of the loan (and the interest payments due) can itself be bought and sold at a monetary value[6] that *may or may not* correspond to the potential to realize that value in the application of the money advanced as capital by whoever took the loan. (Fine, 2013a, p. 50, emphasis added)

In this sense, fictitious capital enters Marx's analysis as a category explaining (and representing) the trade of credit or debts where the capital value of these financial securities is neither directly related to the value of the initial advanced sum or dependent on the realisation of this advanced sum as money capital. In short, the use to which the loan is put

[4] Marx uses financial assets and financial securities interchangeably when referring to fictitious capital. However, there is a difference between financial assets and financial security. He latter is tradable, which is one important aspect that Marx highlights. For instance, funds in a bank account are financial assets, but they are not tradable – unless they are somehow transformed into a title of ownership such as a certificate of deposit (CD). This paper uses only the term financial security to make clear that titles of fictitious capital must be tradable.
[5] Nowadays, certificates and titles representing these claims are vastly represented by electronic forms.
[6] Monetary value, capital value, market value, and asset price are used interchangeably in this paper.

no longer matter. Nevertheless, the particular feature of this capital is that its paper claim's payment commands greater value and, therefore, these financial securities are paper claim on expanded value while neither being necessarily advanced as money capital or having its claim's payment as part of the distribution of profit across competing capitals.

What apparently seems to be a logical issue for Marx's theory of credit and money – and even a reflection of the long-term dispute regarding the definition of IBC itself – is rather the missing part of the puzzle. For this article, fictitious capital is a category grounding the understanding of assets/financial securities to the production and circulation of capital. It makes clear that out of the pool of LMC there will be a form capital that is defined within *circulation* but is neither under the umbrella of IBC or merchant capital, as it has a distinct form of circulation than them.

The best way to understand this category and its importance, especially for a radical analysis of credit and finance, is to clarify a few ambiguities within the literature and in Marx himself through two issues: i) what value do these titles of fictitious capital represent, if any; ii) why these tittle may or may not generate surplus value. The next two subsections respectively address these issues.

Fictitious capital and the logic of capitalisation

Once any definite and regular monetary revenue appear as the interest on a capital whether it actually derives from a capital or not, the credit system has the foundation for any regular income to be "capitalized by reckoning it up, on the basis of the average rate of interest, as the sum that a capital lent out at this interest rate would yield". For example,

> if the annual income in question is £100 and the rate of interest is 5 per cent, then £100 is the annual interest paid on £2000, and this £2000 is then taken as the capital value of the legal ownership title to this annual £100. For the person who buys the ownership title, the £100 does actually represent the conversion of the capital he [or she] has invested into interest. (Marx, 1991, p. 597)

This process of capitalisation is what is behind the emergence of fictitious capital. Interestingly, the existence of fictitious capital means a backward calculation, i.e. from the money income, i.e., the interest, we find the source that generates it, which is completely independent of the capital valorisation.[7] For Marx, this confirms "the notion that capital is automatically valorised by its own powers" (Marx, 1991, p. 595 and p. 597).[8] As a result, the capitalisation process further weakens the link between the expansion of value within the production process and the calculation of the income as "the sum that a capital lent out at this [average] interest rate would yield" (Marx, 1991, p. 597).

The apparently detachment from production of values and real source of value to draw on its returns is, however, much more about capital separating from and undermining its own material basis, i.e., from the production of new use-values through labour exploitation[9] than a real detachment from production. It is, therefore, not a surprise that expansion and development of financial securities since the 1970 have been accompanied by both profound changes in the field of productive valorisation, especially considering the relationship between labour-capital, the production process and sector organisation,[10] and instability and speculative booms and bubbles.

Financial innovations such as collateralised debt obligations (CDOs), which are the claim of wealth on future payment of the debtor in the form of packaged pieces of debts sold in the financial market,[11] have similar features to titles of fictitious capital. CDOs are a promise of a future income that is exchanged in the financial sphere. Their nominal (or notional) value depends on the interest rate and the speculation on future income. For investors, all that matters and the object of their concern and evaluation is the yield these claims will produce. It can be an investment bank or a pension fund controlling huge cash reserves, and the promise form can be either debt payment or dividend; still the essence is the same, i.e., the capitalisation of future income implies the formation of a capital that does not exist in real terms but functions as if it does, and returns depending only on the transfer of (surplus) value.

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[7] See also Brunhoff and Foley (2006), Saad-Filho (2015), Perelman (2008), and Paulani (2011).
[8] See Hilferding (2006), p. 149.
[9] See Paulani (2014) and Rotta and Teixeira (2016).
[10] Examples of these three aspects can be found, respectively, in a) processes of flexibilisation and precarisation of labour; b) downsizing and distribution of managerial goals and changes in (attacks on) labour rights, manufacturing restructuration, for example, Toyotism and just-in-time; and, c) capital centralisation and productive plants' relocation.
[11] For example, debt of homeowners and various forms of debt instruments.

It is crucial to understand that the capitalisation process explains the difference between the capital value, or the monetary value by which the titles are sold in the financial market, and the value that the advanced sum of money against the titles, a sum that, in turn, may or may not have realised as capital. It is equally important to understand that, due to this process, one needs to be cautious about the notion that there is a capital that underpins these financial securities, even the advanced sum was successfully used in the production and realisation of surplus.

This paper's interpretation of Marx (1991) is not that these assets represent any real capital, or that the advanced sum given in exchange for the titles of fictitious capital is the capital generating surplus value from which their claims will draw.[12] These tittles cannot represent any capital because their capital value "is always simply the capitalized yield, i.e., the yield as reckoned on an *illusory capital* at the existing rate of interest" (Marx, 1991, p. 598, emphasis added).

The devaluation of their capital value, for example, may occur due to interest rate rises, or due to the sale of large quantities to be converted into money. Hence, the fall in price occurs irrespective of whether their yield is constant (as it may be in the case of government bonds) or whether their yield varies due to disturbances in the reproduction process, as in the case of shares. In short, titles of fictitious capital become "nominal representatives of *non-existent capital*" (Marx, 1991, p. 608, emphasis added), and their return are not the same as real capital.

The determination of the capital value by capitalisation also implies that, since the future interest rates and returns on fictitious capital cannot be guaranteed *ex ante,* the capital value of these titles is intrinsically speculative (Marx, 1991, p. 598).[13] Factors interfering directly in their prices will, of course, vary according to the type of fictitious capital,[14] but

[12] This interpretation is contentious, as both Marx (1991) and the Marxist literature have passages that may lead to an opposite interpretation, i.e., fictitious capital does represent real capital and its claim replicates capital deployed elsewhere. See, for example, Brunhoff and Foley (2006), Carcanholo and Sabadini (2009), Fine (2009, 2013a, 2013b), Fine and Saad-Filho (2010), Perelman (1987) and Saad-Filho (2015). Unfortunately, a detailed exposition of this discussion is beyond the scope of this paper. The paper's contribution only focus on making the argument that fictitious capital does not represent any real capital.

[13] See Perelman (2008) for more details on fictitious capital and speculation.

[14] For example, in the case of shares, expected macroeconomic, sectorial and firm-specific variables and the business cycle in general.

their capital value is heavily susceptible to fluctuation independently of the use to which the sum advanced against it is put or change in the claim to which they may have title.

In other words, the price of these securities may change due to exclusively market forces, i.e., interactions and beliefs among the traders,[15] and so the gains and losses due to market-value fluctuations become a gamble for the holders of these titles of ownership (Marx, 1991, p. 609). Speculation is therefore an intrinsic part of the definition of fictitious capital, and this feature may come in handy as the speculative operations, together with the trade of these claims, may also provide an opportunity for capital to temporarily defer any problems emanating from the sphere of production.[16]

Speculation brings a new set of complex mediations to the process of capitalisation and, therefore, the pricing of these titles. For instance, their price is based on capitalisation, but several elements have been added to this calculation in order to take into consideration not only the dynamics of capitalist accumulation, but also the fact that the future is uncertain and susceptible to speculation – for instance, risk premiums and differences between short-term and long-term interest rates. This is not to say that only titles to fictitious capital are prone to speculation. Overall, things with price can also be subject to speculation – tulips, houses, and so on. The issue with fictitious capital is specifically that its capital value (price) does not represent any real capital,[17] and it is always simply the capitalised yield.

In sum, Marx's uncompleted empirical analysis of fictitious capital regarding shares and bonds should not change the essence of his argument: "all these securities actually represent *nothing but accumulated claims*, legal titles, to future production" (p. 599, emphasised added).[18] In this sense, note that the adjective *fictitious* is used not because the

[15] Marx (1991) argues, for example, that in times of pressure in the money market, the prices of securities change not only due to interest rate variation, but also because they are put up for sale in massive quantities to be converted into money (p. 598). Looking at the financial markets as a whole, Toporowski (2000) states that the interactions among traders are far from what is commonly called competitive pressures, but pressures to emulate market leaders, which "may speed the emergence of consensus". This consensus "may be as much through the exchange of disinformation and rumour as by the exchange of those prices and trading intentions that are the basis of neo-classical theories of financial markets" (p. 118). Either way, as Saad-Filho (2015) argues, these interactions and beliefs "cannot be 'correct' in any objective sense. They prevail only because the traders converge towards them" (p. 7).

[16] An argument along these lines is, for example, developed by Hilferding (2006) in the context of shares.

[17] Real capital is assumed here as the capital invested and functioning in capitalist enterprises (Marx, 1991, p. 597).

[18] See also Hilferding (2006), pp. 130-131, for the same conclusion. He uses government bonds as an example to make the case that titles of fictitious capital do not need to represent any existing capital: "If this deception is assisted in the case of industrial shares by the existence of genuinely functioning industrial capital, the

capital borrowed no longer exists[19] or the capital borrowed cannot exist twice,[20] but because the value of these titles of fictitious capital varies independently of any changes in the process of reproduction of capital in general. The process of capitalisation is the mechanism behind all this.

Fictitious capital and the logical forms of capital in exchanges: the dominance of IBC[21]

The turning of lending-borrowing relationships into investments in financial securities that entitle the holder to a claim on property or revenue, and the development of specialised financial skills and the innovations in terms of financial vehicles in the modern credit system, necessarily include the possibility that capital does not directly set in motion a productive process from which capitalist profit arises. Yet, the "collective illusion about the source of financial revenues" should not obscure the fact that a continuing stream of income will be taken from a surplus value produced in different sectors of society even when any kind of productive investment has resulted from the money raised from these financial assets (Brunhoff and Foley, 2006, p. 200).

It follows, then, that the dynamics of the accumulation of fictitious capital and real capital may potentially diverge from each other. Further, although the stream of income offered by titles to fictitious capital draws upon a real source of value from intermingled circuits of capital existent in the entire society, the sum of money capital advanced against these titles does not necessarily guarantee the expansion of value that occurs in the productive sphere, let alone represent or replicate any real capital.

Although one could argue that once the separation between IBC and fictitious capital is clear, speculative bubbles and credit crashes may be avoided, this paper makes argument that the issue is not the difference between these two capitals, but the *dominance of IBC over other capitals*. Moreover, remarkably, the crucial point is that this dominance occurs through fictitious capital.

fictitious and purely accounting nature of this paper capital becomes unmistakable in the case of other claims to revenue. State bonds need not in any way represent existing capital" (Hilferding, 2006, p. 110-111).

[19] Marx, (1991), p. 595.

[20] Marx, (1991), p. 597.

[21] This section further develops Fine's (2013a) argument on the 'monopolizing of IBC by the financial system'.

As discussed in the previous sections, in the financial markets the sources and application of the money lent and borrowed are irrelevant, as the attention is on the guarantee of repayment. However, Marx does situate the IBC category differently in relation to industrial and merchant capital. For him, IBC is key to accumulation, and a pre-condition for accumulation of capital is that IBC must "appropriate surplus at the expense of other capitals", which happens through the appropriation of a "share of surplus produced in the form of interest … before the remaining surplus is distributed to other capitals as profit" (Fine, 2013a, pp. 53).

Fictitious capital steps in this framework to encapsulate the trade and circulation of financial securities but it also adds the understanding that any regular income can be capitalised, turned into an asset and the further exchanged in the financial markets.[22] This includes stream of potential revenues on property and on lending and borrowing of LMC for both purely credit purposes and money capital. The rate of return on these assets, however, is not equivalent to the general rate of profit. That is, in the same fashion the IBC, the return is extracted prior that the distribution of surplus, not being subject to the competition across industrial capital.

What we confirm here is that indeed with this development of the credit and financial markets, it is not the difference between IBC and fictitious capital matters or even the use to which loan is put. However, this development also means that there is a capitalisation of a stream of revenues as an asset, which is then followed by a further exchange as IBC. To put differently, fictitious capital actually becomes the instrument through which IBC monopolises the financial system. Take, for example, Fine's (2013a) discussion on a credit transaction such a mortgage, which is not part of IBC but it does become

> once a portfolio of mortgages are bundled up into an asset and sold, possibly combined with other sets of assets, and sold again, and so on. In this case, those buying the fictitious capital are advancing money capital in the expectation of a surplus even though the origins of this surplus do not lie in such an exchange (Fine, 2013a, p. 55)

[22] See also (Fine, 2013a, p. 55).

Note now that the capitalisation of revenue and its trade represent not only the incorporation of "a variety of credit relations into the orbit of fictitious capital" (Fine, 2013a, p. 56), but also the dominance of IBC over other capitals even when the creation of surplus value does not lie in the exchange of some of these assets. This last point further clarifies why accumulation of fictitious capital can result in malaise of production of surplus values.

It should not be forgotten, however, that the dominance and expansion of IBC, in extension and volume through fictitious capital, sometimes drives the accumulation of real capital and sometimes occurs at its expense. Finance – and in particular, fictitious capital – is not only parasitical or an intrusion, but an integral element of the capitalist economy. It emerges endogenously from real accumulation and is a necessary outgrowth of accumulation. Yet, the opportunities for financial investments and accumulation through the expansion of financial markets tend to leave industry under-invested and under-performing, thus reinforcing the tendency towards what has been defined as financialisation.

The use to which money raised by fictitious capital is put can be to buy shares, bonds or any type of securities, and the common feature among them is that these securities will entitle to a share of surplus value even if their connection with the underlying production is lost, albeit still existent. Thus, to reinforce the argument made by this paper in the previous section, although fictitious capital guarantees a claim upon value that is produced or realised in society, it cannot be defined by the use to which the sum advanced against it is put, or by the fact that its capital value is different from the value advanced against it.

Nowadays, given the new techniques of claiming wealth on future payment of the debtor and other financial innovations, operations with fictitious capital are part of the financial system and its varied financial markets. Still, a basic principle holds, i.e., the credit system mobilises resources, creates IBC in the form of securities and then supplies bundles of claims and cleverly designed financial contracts (such as derivatives)[23] for trading in the financial markets, which in turn ends up providing collateral for the financial institutions

[23] Nowadays, the range of securities that come under the definition of what Marx termed as fictitious capital is vast. This article neither discusses a specific type of capital nor aim to empirically analyse them. For a discussion, for example, of options and futures, see Parsons (1988). On derivatives, see Bryan and Rafferty (2006, 2007), Guttmann (1989, 1994), Lee and LiPuma (2004), Lindo (2013), Norfield (2012a, 2013). See also O'Hara (2009) and Wigan (2010).

themselves. In this process, the “reign of IBC”, to use Fine’s (2013a) terminology, keeps expanding at the expense of other capitals.

4. Systematising the role of fictitious capital in the credit system

Although fictitious capital creates new contradictions and enhances instability and speculation, it is also functional for the credit system. The credit system is constructed as a set of specifically capitalist social mechanisms that utilise stagnant money and promote the further generation of surplus value. These mechanisms evolved through the development of commercial credit, the emergence of banking credit and the development of finance in general.

Fictitious capital is at the centre of this process, and its formation is not just a gambling game played by private moneylenders, but crucial to the development of the credit system.[24] Fictitious capital mobilises capital, shifts resources across the circulation of money as money and money as capital, facilitates new investment, finances production and consumption, raises profitability, and even dislocates the threat of crisis through debt-financed consumption or public sector spending (Fine, 2013a, pp. 51–51; Saad-Filho, 2015, pp. 12–13). It does this while extracting part of the surplus value produced through the use of fancy, innovative financial mechanisms.

This section discusses and systemises three aspects of the role of fictitious capital within the credit system, namely, the transformation of these titles into LMC, the participation of these tiles in the banks’ capital, and the creation of credit.

If on the one hand, the form of credit circulating in a circuit implies its cancellation by repayment. On the other hand, the development of credit and credit instruments leads to the formation of titles of fictitious capital that break out of this particular form of circulation to the extent that they are themselves commodities negotiable in the financial market. This in turn gives great flexibility for the transformation of fictitious capital into LMC and vice versa.

[24] See, for example, Hilferding (2006) and Lapavitsas and Mavroudeas (1999).

The tradeable feature gives to government bonds, all kind of stocks and any new forms of fictitious capital the ability to have enough mobility to evade the conditions of the circulation of capital while mobilising LMC. For example, in the case of government bonds, Brunhoff (1976) argues that

> they are not subject to either the movement of the circulation of capital, or the circular movement of the credit financing of productive activities. This kind of asset, animated by 'its own laws of motion', can circulate indefinitely despite its 'fictitious character', or rather thanks to that character which preserves the public debt as such. (p. 95)

In the case of stocks, again, these titles of ownership circulate in the stock market as commodities and their price depends on their capitalisation and is "part speculative since it is determined not only by the actual income, but also by the anticipated income" (Marx, 1991, p. 467). Both bonds and shares are not subject to either the movement of the circulation of capital, or the circular movement of the credit financing of productive activities. Under the specific conditions of the financial market where these titles are traded, their circulation represents the past and the future, but never the present of productive capital

One point not often highlighted or identified within this context is that the mobilisation of LMC through the formation of fictitious capital is not only one-way. There is also the constant transformation of fictitious capital into LMC. For example, although an investor may buy shares and receive dividends instead of lending money against interest income (Foley, 1991, p. 116), he/she may invest productively in another branch or sector using the money received by selling the shares (Hilferding, 2006, p. 140). This transformation is further helped by the process of speculation. According to Hilferding (2006),

> speculation creates an ever ready market for the securities which it controls itself, and thus gives other capitalist groups the opportunity to convert their fictitious capital into real capital, to change from one investment in fictitious capital to another, and to convert fictitious capital back into money capital at any time ... the fact that speculation is unproductive, that it is a form of gambling and betting (and is rightly regarded as such by public opinion) does not run counter to its necessity in a capitalist society, at least during a certain period of capitalist development. (Hilferding, 2006, pp. 137-138)

Bankers, money-dealers, financiers and stockjobbers, therefore, not only constitute the centralisation of monetary funds but also augment and intervene in the availability of LMC.

In addition to mobilising capital and managing LMC, and therefore liquidity, it should also be made clear that titles to fictitious capital become part of the banks' own capital. Money as a means of hoarding can be understood as money abandoning the circuit of capital. The reasons behind hoarding are responsible for the regular creation of stagnant money, which provides an objective basis for both commercial and banking credit, and, therefore serves as the foundation for the credit system.

However, this is only part of the story. With the development of capitalism and the emergence of an advanced credit system, the hoarding of money as a durable accumulation of value and as money that could become capital takes the form of bank deposits, company certificates of indebtedness, government bonds and other financial instruments. That is, "money hoards are socialized and their form changes" (Itoh and Lapavitsas, 1999, p. 47).

Thus, one the on hand, hoarding as an accumulation of value "becomes claims on future outputs and value, and they are held against credit institutions in the first instance". On the other hand, the money hoard of banks "also tends to lose their metallic substance in the course of development of the credit system, and become a graduated structure of claims on others" (Itoh & Lapavitsas, 1999, p. 47). In other words, to put it clearly, hoards take the form of fictitious capital.

The hoarding function based on titles of fictitious capital complements, and is intrinsically connected with, the banks' credit practice – to the extent that besides cash in the form of gold or note, banking capital then consists of securities, which themselves may be divided into two parts:

> commercial papers, current bills of exchange that fall due on specific dates, their discounting being the specific business of the banker; and public securities, such as government bonds, treasury bills, stocks of all kinds, in short, interest-bearing paper

> which is essentially different from bills of exchange. Mortgages, too, can be included in this category. (Marx, 1991, p. 594)

Evidently, this account must be updated, but overall, in countries with developed capitalist production, the banks' own capital represents an average amount of money existing as a hoard, and a large part of the hoard consists of mere papers that have no value of their own; these are purely fictitious and consist of claims on future revenue. An interesting and important aspect to note here is that as "the claim to the same revenue is expressed in a constantly changing fictitious money capital" (Marx, 1991, p. 600), the banks' own capital is, therefore, subject to constant changes.

So now not only that elements termed by Marx as titles of fictitious capital play an important role as a form of hoarding, but also that the structure of the banking system is built upon these titles. The banks' reserves, a vitally important form of purely capitalist hoards, become filled in with titles of fictitious forms of value. Hoarding acquires a financial aspect in which its forms are based on claims on future outputs and value, generating a great scope for financial accumulation.

For this article, what we see here is the dominance of the IBC by the financial system over the through fictitious capital tending "to draw every idle morsel of money as money and money as capital into (possibly short-term) 'investment' in fictitious capital. In doing this, the financial system subsumes the hoarding function of money" (Saad-Filho, 2015, p. 7). These titles and their hoarding and trade become an essential feature of the availability of LMC in the economy, which is essentially the credit liquidity in the system.

We argued that, especially in the case of shares and government bonds, their emergence is due to the financing of the state and financing of production, but their place and function within the credit system is much wider than this. From this perspective, the titles of fictitious capital represented by government bonds are part of the modern credit system for a reason that goes beyond state financing. The demand for these bonds and the determinants of their movement are not only restricted to government expenditures; both are related to a set of mechanisms associated with the functioning of financial markets and market liquidity.

Finally, creation of credit is also an aspect of the credit system that can be understood from the perspective of fictitious capital. Initially, credit money issued by the banks develops out of the general conditions of financing, with banks' action turning the expansion of credit into a multiplication of the means of payments. However, in Marx, the banking system is not merely an intermediary between depositors and borrowers. That is, banks do not only play the role of financial intermediaries: as they develop, they also create deposits by the credit they extend (Marx, 1991).

Despite monetisation of debt and advances of money capital, banking activity also relies on creating deposits on the basis that the credit granted to borrowers represents a "purely banking supply of credit", which, in turn, "rests entirely on banking activity itself and does not correspond to any liquid saving". In this case, the bank credit for the borrower simultaneously reflects the bank's assets and liabilities, and the tangible basis for the latter disappears. Credit money here becomes a pure instrument of circulation; its circuit is no longer closed by any compensatory hoarding, but is the result of its circular form alone, which then makes this credit have a fictitious aspect (Brunhoff, 1976, pp. 94-95).

Following similar argument that Brunhoff puts forwards in her 1976's Marx on Money, we argue that all these roles that fictitious capital comes to play in the credit system make the unity of the latter present an altogether different aspect [25] in which almost all banking assets take on a fictitious character because their circulation "becomes independent of that of 'real capital' and even of the circular form which reflects, in terms of financing, the cycle of capital" (pp. 94-95). [26] It must be noted, however, that the fictitious aspect of the credit system largely rests on the form that the banks' capital assumes.

Once playing the role above, the circulation of fictitious capital continually forms new circuits which "become entangled by the sale and purchase of obligations which have become commodities, in such a way that the financial system tends to grow by feeding on its own substance" (Brunhoff, 1976, p. 91). As a consequence, the credit system not only possesses significant power to stretch accumulation (financing the generation of additional value and surplus value), but also to create conditions for its own repayment.

[25] This is what Brunhoff (1976) calls the third aspect of the credit system (p. 94).

[26] Brunhoff (1976) further argues that this leads to the accumulation of bank capital becoming "purely a problem of the redistribution of the income created by industrial capital" (p. 96).

5. Government bonds as a title of fictitious capital

Marx did not offer a systematic discussion on role of public debt and public finance in the capitalism system, despite significant insights in Marx (1963 [1869]), Marx (1997 [1895]) and Marx (1991 [1894]). Marxist scholars have not devoted much attention to the role of public debt either and when they did, the focus was mainly on the macroeconomic dynamics, i.e., on issues around taxation, surplus value, fiscal expropriation, crowing out, public savings and economic growth (Baran and Sweezy, 1966; Bin, 2015; Brunhoff 1978; Davanzati and Patalano, 2017; David, 2010; Mattick 1969; Michl, 2009; O'Connor, 1973). Hager (2015) offers something different looking at the public debt, class and what Marx called the 'aristocracy of finance'.[27] In this scenario, however, it is rare to find a more direct and detailed discussion of fictitious capital and government bonds, with the exception of Trindade (2012) and Carcanholo (2017).

The discussions provided in the previous section shows that, in Marx, public credit, that is, the issuing, selling, trading and holding of government bonds, plays a crucial role in financial markets. An examination of government bonds from the perspective of fictitious capital sheds light on how government bonds specifically play a role in managing, supporting and developing financial systems.

Marx (1991) often assumes that the sums advanced by government bonds are spent unproductively. This assumption is wrong because we just do not know. Moving away from traditional approach to public debt within the Marxian literature, this paper starts with a different angle and argues that the issuance of government bonds means the advancing of IBC by buyers in exchange for fictitious capital. It represents transfer of income to the issuer and accumulation of funds in the hands of bondholders. In short, it is a way of mobilising capital. The use to which the advanced money capital is put is, as discussed before, irrelevant.

Whether it is used productively or not, the advanced sum will potentially realise surplus value in commodities purchased, underpinning the capacity to sustain surplus value appropriated by corresponding IBC, leaving aside whatever monetary and fiscal policy

[27] See also Streeck (2014).

purposes. Thus, whatever the use of the money borrowed, the functioning of the state and its role will contribute to reproduction of capital.

As with any title of fictitious capital, government bonds draw upon the surplus value that is produced by society as a whole and, in this particular case, this value is transferred to the bondholders via the tax system.[28] The tax system and the responsibility of the state over the legal tender[29] allows for the wealth of the entire nation to back the credit of the state, which in turn make these government bonds highly liquid and secure.[30] Essentially,

> [a] sovereign state can assign a tax liability to the public, levied by constitutional processes. The value of this tax capacity is based on the total production of the national economy and its profitability, considered at present and projected into the future. (Davis, 2010, p. 48)

The substantial financial demands of states also give government bonds a particular status, leading to government bond markets that have a great ability to centralise, organise and control the volume of LMC to be converted into fictitious capital (and vice versa). This can be seen when examining the fact that since the 1970s government bond markets have improved specific functions (especially those related to control and regulation) of the model of mobilisation of IBC used by the stock exchanges (Trindade, 2012, p. 99).

The formation of fictitious capital through government bonds means the creation of liabilities for governments and, at the same time, assets for bondholders. These bondholders range from banks, pension funds and firms to individual investors. In this light, the issuance of government bonds is a form of double-entry bookkeeping that connects the public and the private sphere (Krätke, 2005, pp. 5-6). Given their highly liquidity and security, government

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[28] The source of state revenue is taxes, which must come from surplus value. The reason for this goes back to the definition of the value of labour power. See Fine, Lapavitsas and Saad-Filho (2004). For Krätke (2005), when Marx suggested that tax exploitation of the working class was a basic feature of the modern tax state, he had not clearly developed his analytical concept of exploitation and never really analysed or explained how it works (p. 5). O'Connor (1973) develops Marx's insights and argues that to guarantee the conditions for capital accumulation the cost of production should not only be socialised by the state, but shift away from capitalists to another class of taxpayers (pp. 210-211).

[29] In Marx, all forms of money in modern capitalism assume a public-private character as long as they are effectively defined and guaranteed by the state (Krätke, 2005, p. 8). See also Krätke (2005) and Davis (2012, 2010).

[30] Default is of course possible, as history has showed us. However, states and their central banks usually hold reserves (in gold, foreign currency and other assets) and the state can tax and print domestic currency. See also Trindade (2012).

bonds are, in fact, "a means of intertemporal intermediation, and serve as the ballast for the financial system as a whole" (Davis, 2012, pp. 47-48).[31]

This intermediation is indeed crucial for government management of credit and for its ability to intervene in the country's macroeconomic stabilisation, but is also equally crucial to support private financial markets and their activities, given the ability of fictitious capital to appropriate surplus value produced by the economy. In Davis' (2010) words:

> [the] 'national wealth' serves to provide liquidity for private financial markets and to underwrite private credit to firms for the purposes of private profit. This is a form of exploitation of the public for private gain, on a systemic level, by means of the financial system. (p. 48)

With this in mind, it is possible to outline other important functions of government bonds, which are not associated with bond-financed deficit expenditure and fiscal stimulus.

Firstly, government bonds are considered top quality assets in banks' (or financial institutions in general) balance sheets. They are used as collateral to create new loans that may fund both real and financial investment, bringing additional income to these institutions. These institutions also gain through fees and interest charged during the process of purchasing and distributing government bonds. The top quality feature confirms an issue already discussed, namely, the role that these titles of fictitious capital play in the credit system as a means of hoarding by banks and individuals.

Secondly, financial institutions, firms and individual investors holding government bonds have an instrument that allows them to "regulate their reserves, park funds temporarily available, obtain liquidity at short notice and move seamlessly across different forms of fictitious capital" (Saad-Filho, 2015, p. 11). This confirms that government bonds are forms of absolving or returning LMC to the economy.

Finally, the liquidity and safety of government bonds added to the large volume of issuance "turn the interest rates on these securities into the benchmark for yield curves and

[31] See also Davis (2008).

the precification of most types of fictitious capital" (Saad-Filho, 2015, p. 11).[32] Basically, fiscal revenue causes government bonds to be perceived as less risky than private titles in general, which then grants the use of public bonds as a benchmark in relation to other forms of debt (Trindade, 2012, pp. 99-100).

At a more general level, the trade in government bonds in the secondary market is often associated with these functions, which reveals a great deal of speculation with these bonds. This suggests that government and monetary policy tend to be intrinsically linked to the dynamics and development of financial markets. Government bonds are therefore a powerful tool through which a government is able to intervene in and influence financial markets, from liquidity and availability of LMC to portfolio variations, returns on real and financial investments, and price-setting of real and fictitious assets in general.

Uncoincidentally, since the 1970s, there have been changes in monetary policy and central banks' management regarding an increasing reliance on government bonds to manage the proliferation of foreign exchange trading, risk hedging, speculation and cross-border financial activity more generally (Braga, 1997; Gabor, 2016; Gabor & Ban, 2016; Hardie, 2012; Lagna, 2016; Miranda, 1997; Mosley, 2003; Painceira, 2009, 2010). For Gabor (2016), for example, the state withdrawal from economic life since the 1970s meant that its role in financial life grew bigger in a very specific way, i.e., a connection of financial stability with liquid government bond markets and free (deregulated) repo markets, showing the role that the state, as debt issuer, plays in banks' growing market activities.

Although these functions may look familiar to the public debt management and central bank literature, one crucial detail makes the analysis fundamentally different. From the perspective of fictitious capital, government bonds also offer unparalleled scope for purely financial accumulation. In Marx's words:

> As with the stroke of an enchanter's wand, it 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's creditors actually give nothing away, for the sum lent is transformed into

[32] See also Davis (2012) and Henwoods (1998).

> public bonds, easily negotiable, which go on functioning in their hands just as so much hard cash would. (1991, p. 919)

This has several implications for the dynamics of the economy. For example, distributive impacts. By issuing bonds, the state can actually distribute surplus value among the bondholders. The claims on surplus value come from industrial capitalists, financiers in the form of interest and dividends and so on, and government bondholders in the form of debt service. Even if rates of investment and profits themselves decline, financiers can still increase their income from returns on their holdings of private and public debt, as well as from charging fees for transactions in these financial securities.

When it comes to public finance, there are different modalities to finance the state, such as monetisation, taxation and sale of government bonds. The Keynesian Revolution gave the last one a different status in which monetary authorities can manage the mix between currency issuance and government bonds with different maturities in an attempt to keep the cost of government financing and inflation low, while trying to use the government bonds to manage an economy that by no means leads spontaneously to full employment. However, for the reasons above, government bonds are a very convenient modality of state finance for capital. The requirement to service the public debt at the expense of provision for public goods and human needs shows the private profitability priority. Davis (2012) writes:

> The imperatives of saving the currency and maintaining the credibility of the public debt for private investors serve as the ax for cutting off desperate human needs and subduing democracy … rather than rational planning for long-term growth … Ultimately public resources must serve private profit. (p. 55)

The debate to achieve a balanced budget is one full of ironies here. At stake are the fiscal costs frequently associated with welfare and investment in state-owned enterprises, together with potential tax increases to guarantee more appropriation of the surplus value produced in society, while little is done to intervene on the gains of the "brood of bankocrats, financiers, rentiers, brokers, stockjobbers, etc" (Marx, 1990, p. 920) whose fortunes expand via and feed on the holding and trade of governments' bonds. The argument is somewhat tautological: nothing can be done because the demand for government bonds needs to be guaranteed and stimulated.

Despite their fundamentally different analyses of the capitalist economy, the traditional discussions of bond-financed deficit expenditure within neoclassical and post-Keynesian economics basically have a concern about how these bonds are perceived as net wealth so that their effects on AD and real variables can be examined. The wealth effect engendered through the financial markets is at the core of these analyses. However, government bonds do not offer equal opportunities for gains for all through financial investments. The state borrows primarily from its richest citizens and pays them interest. This is an option over the policy of taxing capital as a whole, as this option necessarily drains from the mass of surplus value produced in the entire society, thanks to fictitious capital.

Intriguingly, the relationship between bond-financed expenditures and their effects on AD, as well as their intensity, i.e. multipliers, are the object of endless dispute in the heterodox and neoclassical schools while the return on government bonds to the bondholders and the followed distributional impacts are less often a reason for dispute and critique.

This is not to say that government bonds do not affect AD, or to enhance the narrow idea of a dichotomy between bad finance versus good productive investment. Rather, it is to highlight that government bonds underpin both the capitalist state and the credit system, and both are based on a mode of production predicated on exploitation, social exclusion and inequality. Government bonds support the centralisation of wealth, especially in the hands of large capitalists and speculators who acquire control of public finances. Thus, at the same time that these bonds are an important tool through which the government is able to intervene in the financial market, fiscal and monetary policy are in fact submitted to financial market's imperatives.[33]

To sum up, the functions played by government bonds in the financial system gives them an active role. They support the institutions and processes that mobilise resources, creating and allocating IBC and other titles of fictitious capital, while also being a great source of financial accumulation. In doing this, government bonds underpin "the emergence of capital in general through the financial system" and, for these reasons, public debt "can

[33] In the case of indebted states, the policy space is even narrower.

neither be avoided entirely nor paid off in minimally complex capitalist economies" (Saad-Filho, 2015, p. 12).[34]

Still, only an empirical analysis considering countries' particularities and their forms of insertion into the international monetary and financial order can concretely show the diverse developments of these functions.

6. Conclusion

Fictitious capital in Marx is what is known today as financial securities. The formation of fictitious capital exists because in capitalist societies any stream of income can be capitalised. This paper argued that these titles are termed *capital* because they guarantee a claim upon value that is produced or realised in society. They are also termed *fictitious* because their capital value can be different from whatever value-generating processes in society, which in turn gives rise to and supports speculation. Although these titles extend the limits of the credit system, they do not necessarily guarantee a future production of surplus value, which, together with speculation, makes the credit system prone to speculative booms and instability.

As titles of fictitious capital, the functionality government bonds extrapolates the needs of state financing to either cover deficits or stimulate AD. For this paper, in the traditional discussion, government bonds are *passive*. In other words, government bonds are a reflection of fiscal policy and there is no direct, specific or analytical discussion of how they are a crucial tool in managing and controlling financial markets. Nor is there any clear discussion of the fact that government bonds assume a broader role in achieving a sound economy in which they then play a more *active* role.

Within this framework proposed in this paper, it is possible to outline other important functions of government bonds, which are not associated with bond-financed deficit expenditure and the fiscal stimulus. These functions are more directly related to financial market liquidity, portfolio diversification, returns on real and financial investment, and price-setting of real and fictitious assets in general. Although these functions vary according to spatial, institutional and historical conditions, the underlying common feature is that, via

[34] See also Henwood (1998), p. 23; Krätke (2005), pp. 8–9; Streeck (2014).

government bonds, the national wealth serves to provide liquidity for private financial markets. Given that, as a title of fictitious capital, government bonds appropriate part of the surplus value produced in society, this is a form of exploitation of the public for private gain on a systemic level by means of the financial system.

Two important consequences emerge out of this framework. Firstly, government bonds offer unparalleled scope for purely financial accumulation and their trade in the secondary markets reveals a great deal of speculation and mobilisation of resources, which illustrates the state and its monetary policy to be intrinsically linked to the dynamics and development of financial markets. Secondly, government bonds underpin the emergence of capital in general through the financial system. Thus government bonds are an active tool in the hand of the state and not only a passive consequence of public deficits. For these reasons, government bonds – and, therefore, public debt – can neither be avoided nor paid off in capitalist economies.

Bibliography

Baran, P. A., and P. M. Sweezy. (1966). *Monopoly Capital. An Essay on the American Economic and Social Order*. London/New York: Monthly Review Press.

Bin, D. (2015). Fiscal superstructure and the deepening of labour exploitation. *Capital & Class*, *39*, 221–241.

Braga, J. C. de S. (1997). Financeirização global: o padrão sistêmico de riqueza do capitalismo contemporâneo. In M. da C. Tavares & J. L. Fiori (Eds.), *Poder e dinheiro: uma economia política da globalização* (pp. 195–242). Petropolis: Editora Vozes.

Brunhoff, S. de. (1976). *Marx on money*. New York: Urizen Books.

Brunhoff, S. de. (1978). *The state, capital and economic policy*. Pluto Press.

Brunhoff, S. de, & Foley, D. K. (2006). Karl Marx's theory of money and credit. In P. Arestis & M. C. Sawyer (Eds.), *A Handbook of Alternative Monetary Economics* (pp. 188–204). Cheltenham: Edward Elgar Publishing.

Bryan, D., & Rafferty, M. (2006). *Capitalism with Derivatives: A Political Economy of Financial Derivatives, Capital and Class* (2006 edition). Houndmills, Basingstoke, Hampshire ; New York: AIAA.

Bryan, D., & Rafferty, M. (2007). Financial derivatives and the theory of money. *Economy and Society*, *36*, 134–158.

Carcanholo, M. D. (2017). Marx(ism) and Public Debt: Thoughts on the Political Economy of Public Debt. *Critique*, *45*, 303–317.

Carcanholo, R. A., & Sabadini, M. S. (2009). Fictitious Capital and Profits. *Observatorio Internacional de La Crisis*.

Davanzati, G. F., & Patalano, R. (2017). Marx on Public Debt: Fiscal Expropriation and Capital Reproduction. *International Journal of Political Economy*, *46*, 50–64.

Davis, A. E. (2008). Endogenous Institutions and the Politics of Property: Comparing and Contrasting Douglass North and Karl Polanyi in the Case of Finance. *Journal of Economic Issues*, *42*, 1101–1122.

Davis, A. E. (2010). Marx and the Mixed Economy: Money, Accumulation, and the Role of the State. *Science & Society*, *74*, 409–428.

Fine, B. (2009). *Financialisation, the Value of Labour Power, the Degree of Separation, and Exploitation by Banking*. Unpublished manuscript, SOAS, University of London.

Fine, B. (2013a). Financialization from a Marxist Perspective. *International Journal of Political Economy*, *42*, 47–66.

Fine, B. (2013b). *Towards a Material Culture of Financialisation* (Working paper) (pp. 1–55). Financialisation, Economy, Society & Sustainable Development (FESSUD) Project.

Fine, B., Lapavitsas, C., & Saad-Filho, A. (2004). Transforming the Transformation Problem: Why the "New Interpretation" is a Wrong Turning. *Review of Radical Political Economics*, *36*, 3–19.

Fine, B., & Saad-Filho, A. (2010). *Marx's "Capital" Fifth Edition* (5 edition). London : New York: Pluto Press.

Gabor, D. (2016b). The (impossible) repo trinity: the political economy of repo markets. *Review of International Political Economy*, 1–34.

Gabor, D., & Ban, C. (2016). Banking on Bonds: The New Links Between States and Markets. *JCMS: Journal of Common Market Studies*, *54*, 617–635.

Guttmann, R. (1989). *Reforming Money and Finance: Institutions and Markets in Flux*. New York: M.E. Sharpe.

Guttmann, R. (1994). *How Credit-money Shapes the Economy: The United States in a Global System*. Armonk, N.Y: Routledge.

Hager, S. B. (2015). Corporate ownership of the public debt: Mapping the new aristocracy of finance. *Socio-Economic Review*, *13*, 505–523.

Hardie, I. (2012). *Financialization and Government Borrowing Capacity in Emerging Markets*. Houndmills, Basingstoke, Hampshire: Palgrave Macmillan.

Henwood, D. (1998). *Wall Street: How it Works and for Whom* (New edition edition). London: Verso Books.

IMF, & World Bank. (2014). *World Bank Revised Guidelines for Public Debt Management*. Washington, D.C.: International Monetary Fund and World Bank Group. Retrieved http://treasury.worldbank.org/documents/RevisedGuidelinesforPublicDebtManagement_2014_English.pdf

Ito, M., & Lapavitsas, C. (1999). *Political economy of money and finance*. Basingstoke; New York: Macmillan ; St. Martin's Press.

Krätke, M. R. (2005). *The Fiscal Crisis of the State Revisited*. Unpublished manuscript, University of Amsterdam, Department of Political Science.

Lagna, A. (2016). Derivatives and the financialisation of the Italian state. *New Political Economy*, *21*, 167–186.

Lapavitsas, C. (1997). Two Approaches to the Concept of Interest-Bearing Capital. *International Journal of Political Economy*, *27*, 85–106.

Lee, B., & LiPuma, E. (2004). *Financial Derivatives and the Globalization of Risk*. Durham: Duke University Press Books.

Lindo, D. (2013). *Political economy of financial derivatives: a theoretical analysis of the evolution of banking and its role in derivatives markets* (PhD thesis). SOAS, University of London, London.

Marx, K. (1990). *Capital: Critique of Political Economy v. 1*. (B. Fowkes, Trans.) (New Ed edition). London ; New York, N.Y: Penguin Classics.

Marx, K. (1991). *Capital: Critique of Political Economy v. 3*. (D. Fernbach, Trans.) (3 edition). New York, N.Y., U.S.A: Penguin Classics.

Marx, K. (1963). *The eighteenth Brumaire of Louis Bonaparte*. New York: International Publishers.

Marx, K. (1997). *Class struggles in France 1848-1850*. New York: International Publishers.

Mattick, P. (1969). *Marx and Keynes: The Limits of the Mixed Economy*. Extending Horizons Books.

Michl, T. R. (2009). *Capitalists, Workers, and Fiscal Policy—Thomas R. Michl*. Cambridge, MA: Harvard University Press.

Miranda, J. C. da R. (1997). Dinâmica financeira e política macroeconômica. In M. da C. Tavares & J. L. Fiori (Eds.), *Poder e dinheiro: uma economia política da globalização*. Editora Vozes.

Mosley, L. (2003). *Global Capital and National Governments*. New York: Cambridge University Press.

Norfield, T. (2012). Derivatives and Capitalist Markets: The Speculative Heart of Capital. *Historical Materialism*, *20*, 103–132.

Norfield, T. (2013). Derivatives, Money, Finance and Imperialism: A Response to Bryan and Rafferty. *Historical Materialism*, *21*, 149–168.

O'Connor, J. (1973). *The Fiscal Crisis of the State*. New York: St. Martin's Press.

O'Hara, P. (2009). Money, credit and finance in political economy: National, regional and global dimension. In J. Reardon (Ed.), *The Handbook of Pluralist Economics Education* (pp. 230–257). Routledge.

Painceira, J. P. (2010). The Financial Crisis of 2007–09 and Emerging Countries: The Political Economy Analysis of Central Banks in the Brazilian and Korean Economies. *Competition & Change*, *14*, 271–295.

Parsons, J. E. (1988). Bubble, Bubble, How Much Trouble? Financial Markets, Capitalist Development and Capitalist Crises. *Science & Society*, *52*, 260–289.

Paulani, L. M. (2014). Money in Contemporary Capitalism and the Autonomisation of Capitalist Forms in Marx's Theory. *Cambridge Journal of Economics*, *38*, 779–795.

Perelman, M. (1987). Fictitious capital and the crisis theory. In *Marx's Crises Theory: Scarcity, Labor, and Finance: Scarcity, Labour, Finance*. New York: Praeger.

Rotta, T. N., & Teixeira, R. A. (2016). The autonomisation of abstract wealth: new insights on the labour theory of value. *Cambridge Journal of Economics*, *40*, 1–17.

Saad-Filho, A. (2015). *Money, Credit, Fictitious Capital and the Management of Accumulation in Marx's Theory of Value*. Unpublished manuscript, SOAS, University of London.

Streeck, W. (2014). The Politics of Public Debt: Neoliberalism, Capitalist Development and the Restructuring of the State. *German Economic Review*, *15*, 143–165.

Toporowski, J. (2000). *The End of Finance: Capital Market Inflation, Financial Derivatives and Pension Fund Capitalism*. London ; New York: Routledge.

Trindade, J. R. (2012). A dívida pública como componente estrutural do sistema de crédito. *Revista Econômica*, *13*, 94–125.

Wigan, D. (2010). Credit Risk Transfer and Crunches: Global Finance Victorious or Vanquished? *New Political Economy*, *15*, 109–125.