

**MARXIST ECONOMICS:
ON FREEMAN'S NEW APPROACH TO
CALCULATING THE RATE OF PROFIT**

Takuya Sato

In a recent article, Freeman (2012) proposes a new approach to the calculation of the Marxian average rate of profit (ARP), namely that marketable financial securities, as well as fixed assets, should be included in the denominator of the ARP to ensure that the latter reflects the dramatic increase in the volume and variety of financial instruments in recent decades. By including such securities in the denominator, he also tries to demonstrate that 'there is a consistent long-run fall in the UK and US rate of profit which, contrary to the figures widely used by Marxists, have both fallen almost monotonically since 1968' (2012: 167).

Taking account of the financialisation phenomenon as part of the recent history of global capitalism is certainly of critical importance for contemporary Marxist economics. Many studies indicate at least a partial recovery in profit rates in many advanced capitalist countries since the 1980s, particularly the U.S, despite lack-lustre growth rates (Harman 2010). To acknowledge such a recovery does not require abandoning Marx's law of the tendency of the rate of profit to fall (LTRPF).

All the same, the *contradiction* between improved profitability and relatively stagnant economic conditions demands a satisfactory explanation from the perspective of critical political economy. Many researchers have tried to explain it with reference to the phenomenon of financialisation, in different and sometimes mutually conflicting ways. Some regard financialisation as at least one of the keys to the *recovery* of the average profit rate (Albo, Gindin and Panitch 2010; Husson 2009; Moseley 2011); some emphasize that it has had a *negative impact* on investment in the 'real' economy (Duménil and Lévy 2011; Orhangazi 2008); and still others highlight that a lack of profitable opportunity for

productive investment has boosted investment in financial markets (Smith and Butovsky 2012; Kliman 2012; Foster and Magdoff 2009).

While sharing aspects of this latter analytical approach, Freeman goes further by treating financialisation as a significant *cause* of a continuing, ‘monotonic’ decline in the profit rate in both the US and the UK. In this sense, his approach raises important issues not only with regard to empirical studies of the profit rate, but also with regard to how financialisation should be conceptualized in the analysis of contemporary capitalism.

Certainly, some specifically ‘financial’ indicators, such as the return on total assets (ROA) and the return on equity (ROE), whose denominators consist of both fixed and financial assets, have legitimate uses in the analysis of capitalist corporate behavior. In financial analysis, the ROA is calculated by dividing net income by total assets. Total assets include not only property, plant, equipment, and inventories, but also cash, accounts, investment securities, and long-term loans to other corporations. As the financialisation process has progressed, some non-financial corporations have also made significant investments in financial securities, such as investment securities and long-term consumer loans. In looking at these issues, the use of the ROA and the ROE is helpful in understanding some aspects of corporate behavior, even though these measures are conceptually different from such fundamental Marxian ratios as the rate of profit and the rate of surplus value.

Nevertheless, Freeman’s specific proposals are problematic at a number of levels. The biggest problem is that he effectively obliterates the classical Marxist distinction between ‘real capital’ (encompassing both industrial and commercial capital) and ‘interest-bearing capital’. While the former participates in the formation of a ‘general’ or ‘average’ rate of profit through the production, realization and redistribution of surplus value, the latter depends on the rate of interest as a principal means of capturing a specific share of social surplus value. Furthermore, Freeman’s negation of the distinction between real and interest-bearing forms of capital leads directly to two other significant problems.

First, if both fixed assets and marketable financial securities are included in the denominator of the profit rate (as seen for example in his Figure 7 for the US ARP), we cannot avoid *double counting* the value of the same assets in its calculation. Assets are counted first as real assets and then as ‘credit-money-capital’ (*i.e.*, financial securities, bonds, or money capital).

If one assumes that the money capital lent by a rentier to industrial or commercial firms is subsequently invested by the latter to form real capital assets, then a double-counting problem becomes altogether obvious.

Second, including financial securities in the denominator of the profit rate implies that there is no conceptual difference between the rate of profit and the rate of interest. But if the distinction between the rate of profit and the rate of interest is abandoned, Marx's concept of fictitious capital cannot be maintained. What's more, the crucial theoretical difference between two distinct forms of capitalist competition over social surplus value -- one involving the competition among industrial and commercial capitalists that results in an ARP, and the other involving competition among money ('rentier') capitalists governed by the market interest rate -- disappears.

The above two issues are discussed in greater depth in the first and second sections below. In the third section, I will extend the critique by showing that Freeman's proposal involves a problematic interpretation of Marx's concept of 'the finished form of the average rate' (Marx 1981: 459). Finally, I will examine Freeman's faulty account of contemporary capitalism and show how the above-mentioned theoretical issues are related to it.

The Double Counting Problem in Freeman's Approach

The following is Freeman's first example, which I will call **Case 1**.

Suppose first a capitalist has tied up \$1,000,000 of his own money in a factory which makes \$200,000 per year. His profit rate is 20%.

Now suppose next year the capitalist issues a bond yielding 10% for \$1,000,000 to a rentier. The manufacturer still owns the factory which is still worth \$1m, and the rentier owns a monetary instrument—the bond—which is also \$1m (Freeman 2012: 179).

For the purpose of our discussion, I will present this case in the form of a corporate-accounting balance sheet.

Table 1-1: Case 1

Manufacturer		Rentier	
Fixed Assets	His Own Money	Bond	Money Capital
\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Monetary Assets	Debt (bond)		
\$1,000,000	\$1,000,000		

The balance sheet of the manufacturer shows a purchase of fixed assets of \$1m (on the upper left side) with a money investment of \$1m (on the upper right side).

The manufacturer then borrowed \$1m from the rentier by issuing a bond (on the lower right side) and kept the money as monetary assets and not as fixed assets (on the lower left side). The balance sheet of the rentier shows a loan of \$1m to the manufacturer through the purchase of a bond, so that now he is a bondholder.

The manufacturer's factory 'makes \$200,000 per year' as profit, and 'the rentier receives \$100,000 from the manufacturer on an investment of \$1m' while 'the manufacturer retains \$100,000 on fixed assets of \$1m' (Freeman 2012: 179-180). However, the balance sheets cannot show such annual revenues, because they are not profit and loss statements.

From the standpoint of 'the approach current among Marxist writers' (hereafter, the conventional approach), the manufacturer's profit rate¹ is calculated by dividing the total profit of \$200,000 by the fixed assets of \$1m (Freeman 2012: 180), which is 20% (see the left side of **Table 1-2**).

Contrariwise, in Freeman's approach, the manufacturer's profit rate is only 10% because it considers only the manufacturer's profit of \$100,000.

1 Here, 'manufacturer's profit rate' and 'manufacturer's profit' are nominal expressions corresponding to the conventional approach.

Table 1-2: The Rates in Case 1

	The approach current amongst Marxist writers	Alan Freeman
Manufacturer's profit rate	$\frac{\text{Surplus Value } (\$0.2\text{m})}{\text{Fixed Assets } (\$1\text{m})} = 20\%$	$\frac{\text{Manufacturer's profit } (\$0.1\text{m})}{\text{Fixed Assets } (\$1\text{m})} = 10\%$
Rate of return on bond held by rentier	$\frac{\text{Bond Yield } (\$0.1\text{m})}{\text{Bond } (\$1\text{m})} = 10\%$	$\frac{\text{Bond Yield } (\$0.1\text{m})}{\text{Bond } (\$1\text{m})} = 10\%$
Average rate of profit	$\frac{\text{Surplus Value } (\$0.2\text{m})}{\text{Fixed Assets } (\$1\text{m})} = 20\%$	$\frac{\text{Surplus Value } (\$0.2\text{m})}{\text{Fixed Assets} + \text{Bond } (\$1\text{m} + \$1\text{m})} = 10\%$

The rate of return on the bond held by the rentier is calculated by dividing the bond yield of \$100,000 by the bond value of \$1m. It is 10% in both the conventional approach and Freeman. However, this 10% is considered to be an interest rate in the conventional approach, while in Freeman's approach it is considered a 'profit' rate. Accordingly, for Freeman, both the manufacturer's profit rate and the 'profit' rate of the rentier are 10% (see the right side of the **Table 1-2**). This question, pertaining to whether the 10% rate of return of the bond is an interest rate or a profit rate, is a key issue, and one to which we will return in the next section.

The ARP is 20% in the conventional approach while it must be only 10% for Freeman (see **Table 1-2**). In Freeman's **Figure 7** (2012: 179), the 'corrected' profit rate is given as 'operating surplus of private enterprises' divided by 'fixed assets of private enterprises plus marketable financial securities [in] all sectors.' Consistent with this, the ARP in **Case 1** should be calculated based on \$2m of total capital, consisting of \$1m of fixed assets and the \$1m bond.

In Freeman's view, to calculate profit rates by using only fixed assets is to ignore the existence of 'money-credit-capital' (Freeman 2012: 180). However, his procedure leads unavoidably to a double counting problem. To demonstrate the problem clearly, I will present another example -- **Case 2** -- which is also developed according to Freeman's methodology.

Table 2-1: Case 2

Manufacturer		Rentier	
Fixed Assets	His Own Money	Bond	Money Capital
\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Additional Fixed Assets	Debt (bond)		
\$1,000,000	\$1,000,000		

In **Case 2**, the \$1m money capital lent to the manufacturer by the rentier is invested in additional fixed assets of \$1m (see the lower left side of the manufacturer’s balance sheet). In other words, the manufacturer has invested all of the \$2m in fixed assets. For the purpose of a simplifying explanation, I will assume that the total amount of profit, \$200,000, does not change from **Case 1** to **Case 2**, regardless of the additional investment.

Due attention needs to be given to the fact that the money capital of \$1m lent to the manufacturer still forms a marketable financial security for the rentier (on the left side of the rentier’s balance sheet), even as the same capital exists as additional fixed assets for the manufacturer (on the lower left side of the manufacturer’s sheet). This is precisely the case that Marx mentions in *Capital*, Volume 3:

[T]he capital does not exist twice over, once as the capital value of the ownership titles, the shares, and then again as the capital actually invested in or to be invested in the enterprises in question. It exists only in the latter form, and the share is nothing but an ownership title, pro rata, to the surplus value which this capital is to realize (Marx 1981: 597; cited by Freeman: 186).

In light of this, if the bond held by the rentier is included in the denominator of the ARP, this will result unavoidably in *double counting the same capital*.

In **Case 2**, the additional fixed asset of \$1m is by no means idle money. It is real, acting, productive capital for the manufacturer. Therefore, in both approaches, the additional fixed assets of \$1m have to be included in the denominators of the manufacturer’s profit rate and of the ARP. We see ‘Fixed Assets + Additional Fixed Assets (Add FA)’ in the top and the lowest cells of **Table 2-2**. However, a problem is thereby revealed for Freeman’s approach. He asserts that financial securities need to be included in the denominator of the ARP. To be consistent, he must

therefore include the bond of \$1m held by the rentier in the denominator (see the lowest right side of the **Table 2-2**). However, this Add FA of \$1m and the Bond of \$1m are two aspects of the *same* capital, as Marx insists in the passage quoted above. This capital constitutes additional fixed assets for the manufacturer, and, at the same time, an ownership title for the rentier.

Table 2-2: The Rates in Case 2

	The approach current amongst Marxist writers	Alan Freeman
Manufacturer's profit rate	$\frac{\text{Surplus Value } (\$0.2\text{m})}{\text{Fixed Assets} + \text{Add FA}} = 10\%$ $(\$1\text{m} + \$1\text{m})$	$\frac{\text{Manufacturer's profit } (\$0.1\text{m})}{\text{Fixed Assets} + \text{Add FA}} = 5\%$ $(\$1\text{m} + \$1\text{m})$
Rate of return on bond held by rentier	$\frac{\text{Bond Yield } (\$0.1\text{m})}{\text{Bond } (\$1\text{m})} = 10\%$	$\frac{\text{Bond Yield } (\$0.1\text{m})}{\text{Bond } (\$1\text{m})} = 10\%$
Average rate of profit	$\frac{\text{Surplus Value } (\$0.2\text{m})}{\text{Fixed Assets} + \text{Add FA}} = 10\%$ $(\$1\text{m} + \$1\text{m})$	$\frac{\text{Surplus Value } (\$0.2\text{m})}{\text{Fixed Assets} + \text{Add FA} + \text{Bond}} = 6.7\%$ $(\$1\text{m} + \$1\text{m} + \$1\text{m})$

In **Case 1**, the double-counting problem might not be explicit because the additional idle monetary assets of \$1m (on the lower left side of the manufacturer's balance sheet in **Table 1-1**) are not included in the denominator of the profit rate for both approaches. However, once we set up **Case 2**, where the money lent to the manufacturer is used as real, acting fixed assets, it becomes clear that the same capital is counted twice -- as Add FA, and then as a Bond -- in Freeman's approach. Thus, Freeman's lower profit rate of 6.7%, compared to the 10% of the conventional approach, is based on a double-counting sleight of hand. His lower ARP in **Case 1** relies on the same legerdemain.

I want to examine this problem from another angle. When we suppose a manufacturer has his own money capital of \$10m and purchases fixed assets of \$10m with that money, the total amount of his capital remains the same: it is \$10m regardless of its form. Now, let us suppose, as a second case, that the manufacturer has no original money capital and obtains all his funds of \$10m from a rentier by issuing shares. In this case, the manufacturer purchases \$10m of fixed assets with the \$10m loaned

by the rentier. How much then is the total amount of the capital held by the manufacturer and the shareholder? Is it \$20m or \$10m? If someone considers the total amount to be \$20m, consisting of \$10m of fixed assets and \$10m of shares, and calculates the ARP by using a denominator of \$20m, this can only mean counting the *same* capital twice, once as ‘the value of real capital’ and then again as ‘the value of a title of ownership.’

According to Freeman’s procedure, if all manufacturing enterprises in a society were established as a stock company, and if all of the real capital were purchased by money capital supplied by stockholders, the ARP would be *lower* than if all manufacturing enterprises were established with their own money capital. This is because, in the former case, all of the capital would be double-counted, once as real capital and then as an ownership title. The implication would seem to be that the ARP falls due to the failure of productive firms to self-finance!

Recognizing that his procedure is vulnerable to the criticism of double counting, Freeman suggests a ‘solution’ to the ‘puzzle’ by invoking Ramos’s (2004) theory of money, which he describes as ‘generally accepted by TSSI scholars’ (2012: 182). He writes:

If the capitalists in a country own \$10,000,000 in fixed assets, produced by a million hours of labour, and if they have also salted away \$10,000,000 in money, then the million hours of labour are represented in \$20,000,000. Each hour therefore has a monetary expression (MELT) of \$2². The capital of society, therefore, when we consider its capacity to purchase or produce other goods, is divided into two parts: that represented by the price of the fixed assets, and that represented by the money. Since the total value remains unchanged, the presence of the idle money devalues the fixed assets *pro tanto*. (2012: 182)

According to Ramos’s TSSI theory of money, the same amount of labour hours (for example, a million of hours of labour) would be represented in \$10m in our first case above, and in \$20m in the second case. Therefore, the inclusion of both the \$10m of fixed assets and the \$10m of shares in the denominator of the profit rate in the second case would *not* amount to double counting the million hours of labour in the denominator.

2 Evidently, this \$2 is a typographical mistake and the actual figure should be \$20 (that is, \$20 million divided by a million hours).

There are three problems with this. First, Freeman's 'solution' actually depends on regarding ownership shares as a virtual kind of capital value. Applying this solution to our second case, the fixed assets and the shares would be deemed to each represent a half million hours of labour, despite the fact that the 'additional capital created by the financiers does *not* constitute additional *value*, only additional money' (Freeman 2012: 182; emphasis added). Yet Ramos writes: 'It is clear that, although the labour-saving innovation has reduced the *quantitative* capacity of symbol-money to represent labour-time, this does not affect its *qualitative* function' (Ramos 2004: 78)³. For Ramos, symbol-money has an inherent ability to represent labour-time, even though it possesses no labour-created value. It would seem that Freeman wants to extend Ramos's idea concerning symbol-money to a wider range of financial securities.

Second, even if we were to accept Freeman's concept of money, the inclusion of ownership shares in the denominator of the profit rate still means that the *same* capital is being double-counted, at least in terms of money. The fact that a share is still merely an ownership *title* also remains unchanged, even if we regard shares as representing 'hours of labour' (past, current or future) and employ a 'monetary expression of labour time' (MELT), as in Ramos's TSSI money theory.⁴

3 Ramos-Martinez (2004) applies MELT to the rate of profit to defend Marx's theory against Okishio's criticism (1961).

4 Interestingly, Kliman writes: '[A]lthough such adjustments [by means of MELT] have a significant effect on the *level* of the rate of profit, they have little effect on its *trends* since the early 1980s. This finding is extremely important' (Kliman 2012: 82). He also notes: 'Although I will provide estimates of inflation-adjusted rates of profit..., I also think those unadjusted, nominal rates are useful' (Kliman 2012: 215n). For Kliman, the *trend* of the profit rate is unaffected by the MELT adjustment. Therefore, he can consider his unadjusted profit rate as just as important as the MELT-adjusted profit rate. In addition, Kliman, Freeman et al.(2013:17, note7) argue that: 'Value can be expressed both in terms of money and in terms of labour-time, and we can move between these two expressions by means of what Ramos-Martinez (2004) has called the monetary expression of labour-time (MELT).' Thus, for these authors, MELT is the means of distinguishing between the profit rate expressed in terms of money price and in terms of labour time. However, for Freeman (2012), as demonstrated above, moving from a money profit rate to a profit rate reckoned in terms of labour-time plays a crucial role in 'resolving' the double counting problem. Logically this can only mean that Freeman now regards the MELT-adjusted profit rate as the one and only 'real' profit rate.

Third, and most fundamentally, the only difference between our two cases -- one in which all enterprises are established by their own money capital, and the other in which all enterprises are established as stock companies -- concerns *who* made the original money investment in fixed assets. As we have already seen, for Freeman, this issue makes a huge difference, by itself, in the calculation of the ARP.⁵

Capitalist Competition and Capitalization

If we include financial securities in the denominator of the profit rate along with fixed assets, this can only mean that the conceptual distinction between real capital (industrial and commercial capital) and interest-bearing capital is abolished.

According to Freeman's approach, money capital, independently of industrial and commercial capital, obtains a 'true' profit. This is implicit in the following example (Freeman, 2012: 181):

The manufacturer makes \$100,000 on fixed assets of \$1m;
The bond's owner makes \$100,000 on monetary assets of \$1m.

Freeman writes: 'The approach current among Marxist writers treats the interest as a kind of tax or levy which the law gives the rentier the right to exact' (2012: 180). For these Marxists: 'The manufacturer makes a deduction of \$100,000 from a 'true profit' of \$200,000 on fixed assets of \$1m,' and 'The manufacturer gives the rentier \$100,000 of this, being 10% of the bond's face value; and the profit rate remains 20%' (2012: 180). Against such a viewpoint, Freeman asserts that the profit rate is not 20% but 10%, and he implies that the bondholder obtains \$100,000 not 'as a kind of tax or levy' but as a 'true profit' in itself. It follows that, for Freeman, both the \$100,000 return on fixed assets and the \$100,000

5 This double counting problem has empirical implications in the case of Japanese corporatism. As is well known, one of the important features of Japanese corporatism is that corporations hold shares issued by other corporations with each other. This is called 'Kabushiki Sougo Motiai', which means mutual shareholdings. In such a case, if one tries to include shares held by corporations in the denominator of the profit rate, that would clearly lead to double counting of the same capital, once as factories, machinery and equipment of corporations, and then as financial securities held by the other corporations.

return on monetary assets constitute ‘true profit.’ This theoretical presupposition is evident in his **Figure 7**, which suggests that both fixed assets and financial securities participate in the formation of the ARP, and which also suggests that bondholders, alongside industrial and commercial capitalists, obtain an average profit as earnings, and not interest.

If both industrial capitalists and bondholding money capitalists obtain profits, then both types of capitalists are competing directly with each other in pursuit of a higher rate of profit. However, such a view necessarily obviates the concept of ‘capitalization,’ which is critical to Marx’s concept of fictitious capital. Marx writes:

The formation of fictitious capital is known as capitalization. Any regular periodic income can be capitalized by reckoning it up, on the basis of the average rate of interest... (1981: 597; as cited by Freeman 2012: 186)

Suppose that a rentier lends \$1m of money capital to a manufacturer in exchange for a one-year maturity bond, whose face value is \$1m, and the rentier earns \$0.1m of coupon payment from the manufacturer. Now if the average market interest rate is 2%, the ‘theoretical’ market value of the bond rises to \$1.08m. This is because $(\$1m + \$0.1m) / (1 + 0.02) = \$1.08m$. At this moment, if another possible purchaser wants to buy the bond, the purchaser has to pay \$1.08m (a ‘theoretical’ price), not \$1m (the face value of the bond). This consideration also applies to shares issued by companies. If the annual dividend of a company is \$10 per share, and the average market interest rate is 2%, then the ‘theoretical’ price of the share, namely the market value of the fictitious capital, is \$500 ($= \$10/0.02$), regardless of the face value of the share.

The *real basis* of capitalization in determining the ‘theoretical’ price of financial securities is the ‘real’ capitalist economy. Money capitalists make investment decisions by comparing market interest rates with ratios of bond yields and dividend rates on shares. They try to earn the highest return possible by choosing between three possible income streams: interest realized from lending money, a yield on bonds, or a dividend on shares. When at a given moment money capitalists can obtain the same rate of return – as interest, bond yield, or dividend – whether they lend money, buy bonds, or invest in shares, the prices of all these securities achieve ‘theoretical equilibrium’. This sort of financial decision-making

is known as ‘interest rate arbitrage’ and involves *competition among money capitalists* pursuing higher returns within a field encompassing many different financial instruments.

To follow Freeman’s premise that money capitalists earn profits rather than interest is to deny the concept of capitalization as the modality for the formation of fictitious capital. As suggested in the above example, the price of the bond becomes \$1.08m and the price of a share becomes \$500 when the average market interest rate is 2%. The annual return obtained by the bondholder or shareholder is also considered to be 2% (in interest). However, according to Freeman’s approach, what the bondholder or shareholder earn would be a 2% ‘profit’ rate rather than a 2% ‘interest’ rate. If this 2% is regarded as a profit rate, the money capitalist would logically invest much more money capital in manufacturing, where the prevailing profit rate is 10%, and, at the same time, he would reduce existing investments in bonds, where the ‘profit’ rate is only 2%. Such capitalist behavior would continue until an average ‘profit’ rate would prevail in *every* sphere, that is to say, not only in industry and commerce but also in financial markets.

In such a scenario, there would be no meaningful distinction between interest and profit -- neither in terms of their abstract definitions nor in terms of their actual rates of return. Accordingly, the theoretical and equilibrium prices of securities would be calculated by dividing periodic income by the ARP, which is at exactly the same level as the average market rate of interest.

But can such a calculation be considered ‘capitalization’? Is it reasonable to assume that the ARP determines the theoretical and equilibrium price of a security? In the real world, who would buy a government bond by comparing its yield with an ARP?⁶ It is obvious that any such notion

6 It is true that when money capitalists make a decision as to whether to buy a government bond or to invest in a share of a corporation, they might consider the return on the share, represented by ROE (return on equity) for instance. While ratios of bond yield represent a kind of interest rate, returns on the share are a kind of profit based on equity. The numerator of an ROE is not limited to a dividend but includes a whole return. Nevertheless, the market equilibrium price of the share is determined by dividing dividends alone by average market interest rates, not by dividing the total return by the average rate of profit. That is because shareholders can earn only a *dividend* from the company, not a full share of the company’s profit.

constitutes a theoretical denial of capitalization ‘on the basis of the average rate of interest’ as ‘the formation of fictitious capital.’ Only if we are prepared to deny the concept of capitalization, a concept that is surely indispensable to a Marxist understanding of fictitious capital in the ‘era of financialisation,’ might we then include financial securities in the denominator of the ARP.

On the ‘Finished Form’ of the ARP

The Distinction between Commercial, Interest-Bearing, and Landed Capital in Marx’s Categories

In making the case for his proposal, Freeman invokes Marx’s reference to ‘the finished form of the average rate’:

On our first consideration of the general or average rate of profit ... we did not yet have this rate before us in its finished form, since the equalization that produced it still appeared simply as an equalization of the industrial capitals applied in different spheres. This was supplemented in Part Four, where we discussed the participation of commercial capital in this equalization, and commercial profit (Marx 1981: 459).

Freeman then writes:

The ‘finished form’ of the profit rate is not that which *excludes* commercial, financial, and landed capital, but to the contrary, significantly modifies the inadequate notion we might have, if we confined ourselves only to productive industry. (Freeman 2012: 184)

It is certainly true that, for Marx, the ‘finished form’ of the ARP does not exclude commercial capital; however, it *does* exclude interest-bearing capital and so-called ‘landed capital.’ According to Marx, while commercial capital, as a form of real, functioning capital, takes part in the formation of the ARP, interest-bearing capital does not.

After formulating the finished form of the ARP, which includes profits for commercial capitalists, in Part 4 of volume 3 of *Capital*, Marx moves on to the explanation of the ‘division of profit and interest’ in Part 5, and to the share of rent from profit in Part 6. This methodology implies that both the definition and the level of the ARP remain unchanged by adding

the categories of interest for money capitalists and of ground rent for landowners. The only thing that changed by adding these categories is ‘profit of enterprise’ (Marx 1981: Chapter 23). And it is changed precisely by an absolute *deduction* of interest and land rent from the surplus value (profits) of ‘real’ (industrial and commercial) capitals. Even so, the ARP remains unchanged by this transfer of surplus value: ‘If the general rate of profit is given, this latter part [the form of profit of enterprise] is determined by the rate of interest; if the rate of interest is given, it is determined by the profit rate’ (Marx 1981: 496).

Marx’s Inclusion of Bank Capital and Interest, but not Interest-Bearing Capital, in the Calculation of the ARP

As explained above, interest-bearing capital is not included in the denominator of the ‘finished form’ of the rate of profit. However, ‘bank capital’ ought to be included insofar as it acts as ‘real, functioning capital’, i.e. money-dealing capital. Thus, fixed capital assets employed by banking capitalists constitute part of the total social capital ‘advanced’ in the total process of capitalist production and reproduction and should therefore be included in the denominator of the rate of profit. Furthermore, the surplus value distributed to ‘real, functioning’ financial capital, in the form of interest earned, should also be included in the numerator.

Theoretically, bank capital is considered a combination of money-dealing capital and interest-bearing capital. Regarding ‘the business of banking’, Marx writes: ‘We have seen in the previous Part (Chapter 19 [: Money-Dealing Capital]) how the maintenance of a reserve fund for businessmen, the technical operations of receiving and paying out money international payments, and hence the bullion trade as well, are concentrated in the hands of money-dealers. Alongside this money-dealing, the other side of the credit system also develops, the management of interest-bearing capital or money capital as the special function of the money-dealers’ (1981: 528). The money dealing comes from ‘[t]he purely technical movements that money undergoes in the circulation process of industrial capital, and..., also that of commodity-dealing, commercial capital’ (1981: 431). Therefore, ‘[j]ust as, in the case of commercial capital, a part of the industrial capital present in the circulation process in the form of money capital separates off and performs these operations of the reproduction process for the whole of

the remaining capital.' (1981: 431). In this sense, not only industrial and commercial capital but also banking capital, at least money-dealing capital, is part of the real, functioning capital in Marx's conception.

Insofar as the money-dealing capital is defined as real, functioning capital, it participates in the formation of ARP alongside industrial and commercial capital. '[The money dealers'] profit is simply a deduction from surplus-value, since they are dealing only with values already realized (even if realized only in the form of claims for payment)' (Marx 1981: 438). Referring to bank capital's relation to the ARP, Hilferding writes: 'On this capital the banks realize average profit just as merchants do on their commercial capital and industrialists on their productive capital.' (1981: 171).

Based on the above theoretical understanding, formula (1) provides an appropriate theoretical representation of the 'Marxian' ARP.

$$\frac{S}{K} = \frac{P_i + P_c + P_b}{K_i + K_c + K_b} \quad (1)$$

Here, S represents total surplus value; K , the advanced capital; P , profit; subscript i represents industrial capital; c , commercial capital; and b , banking capital.

First, P_i is the industrial profit that remains after the distribution of surplus value (created by productive labour) to commercial and banking capitalists. Both P_c and P_b are forms of surplus value resulting from deductions from industrial profit. P_c is based on the systemically necessary 'realization' activity undertaken by commercial capital, while P_b is based on the equally necessary money-dealing operations undertaken by banking capital. In addition, as definite forms of such real, functioning capital, industrial (K_i), commercial (K_c), and bank (money-dealing) capital (K_b) – and above all their fixed assets -- must be included in the denominator of the ARP. All of these types of capital participate in the formation of the ARP.

Second, industrial and commercial capitals usually pay interest from their profits to bank capital in return for loans from the latter. Therefore, the numerator of the rate of profit (as in equation (1)) is expressed as follows:

$$\begin{aligned}
P_i + P_c + P_b &= (E_i + I_i) + (E_c + I_c) + P_b \\
&= E_i + E_c + (P_b + I_i + I_c) \\
&= E_i + E_c + E_b \qquad (2)
\end{aligned}$$

Here, I_i and I_c represent the interest paid by the industrial and commercial capitalist to the bank capitalist.⁷ E represents profit-of-enterprise after the payment and receipt of interest. Accordingly, equation (2) shows that the profit of the industrial capital (P_i) is divided into E_i and I_i , and the profit of the commercial capital (P_c) is divided into E_c and I_c . On the other hand, E_b represents profit-of-enterprise for bank capital and it consists of not only P_b but also I_i and I_c , which are paid to banking capital by industrial and commercial capitalists. The important point is that the sum of $E_i + E_c + E_b$ in (2) still includes interest payments. Accordingly, the formula (2) remains the same value as the numerator of equation (1), ($P_i + P_c + P_b$).⁸

Of course, in actual economies, in addition to the average profit (P_b) and interest payment from other capitalists (I_i and I_c), bank capital earns interest payments from household and public sectors⁹ and many forms of 'profit'¹⁰. All the same, at a theoretical level at least, we can confidently assert that, while bank capital -- as real, functioning capital -- should be included in the denominator of the ARP and that interest should be included in the numerator, *interest-bearing capital in its role as fictitious capital* (that is to say, as paper claims on the value created by real, functioning capital) should be excluded from the calculation of the ARP.

7 I put aside the rent for landowner in this context.

8 In actual economies, bank capitalists and industrial and commercial capitalists often pay interest to each other. Therefore, for a more precise discussion, we may have to take into account of 'net interest', i.e. the difference between the payment of interest and the receiving of interest.

9 Lapavistas writes: 'Marxist theory analyses bank profits as deriving typically from handling the monetary transactions of enterprises (earning the average rate of profit) as well as from lending to enterprises (earning interest, a part of surplus values). Bank profits that derive from mediating the circuits of worker revenue (whether as liabilities or assets) constitute a new source of profits' (2009: 18).

10 I will discuss the nature of these profits in the summary and conclusion.

Different Movements of the Rate of Profit and the Rate of Interest

As mentioned in the last section, the logical conclusion of abandoning the distinction between real, functioning capital and loanable money capital is a denial of the distinction between interest and profit rates, and this leaves us unable to explain the fact that the ARP and the rate of interest often move very differently from one another over the course of the business cycle.

During the period of recovery and shortly before the boom, the profit rate is relatively high due to sound economic circulation and successful realization of anticipated profit margins, while the interest rate is relatively low due to an abundance of loanable money capital. In the boom phase of the business cycle, the interest rate goes up due to a lack of money capital and the profit rate reaches its peak and then begins to decline. Finally, during the crisis phase that follows the boom, the ARP drops rapidly, even as the interest rate spikes as demand for money as a means of payment increases dramatically. At this moment in particular, the two indicators move in *opposite* directions. '[We] find that a low level of interest generally corresponds to periods of prosperity or especially high profit, a rise in interest comes between prosperity and its collapse, while maximum interest up to extreme usury corresponds to a period of crisis' (Marx 1981: 482). On the other hand, during the phase of stagnation after the crisis, the ARP and the interest rate both decline and become stagnant. In this period, the two rates approach relative synchronization.

Although this is certainly not the only way of conceptualizing the movements of these two indicative rates, the germane point is that they often move in contrary and seemingly independent directions. Interestingly, Freeman also acknowledges the fact that '[the return on a loan] may rise sharply higher than the profit rate, as in a credit crunch, or fall well below, as during the early stages of a boom' (2012: 187). This is a very important fact about interest rates. And it follows that the conceptual distinction between the ARP and the rate of interest is altogether indispensable.

Freeman's View of Contemporary Capitalism

The Contradiction between the Recovery in the Profit Rate and the Stagnant Rate of Interest

The different and relatively autonomous movements of profit and interest rates, as described in the last section, has an important bearing upon how we should understand the recent history and current crisis of contemporary capitalism.

Questioning Duménil and Lévy's assessment that the 'profit rate reached a low at the beginning of the 1980s and has since been increasing' (2004: 28), Freeman observes that 'most other economic indicators (see, for example Freeman 2010; Kliman 2011) contradict the idea of a post-1970s recovery' (2012: 168).

I agree with Freeman that 'most other economic indicators' have not recovered since the 1980s, and that the 'US economy has, for the past 30-40 years, performed worse than at any time since the 1930s' (2012: 168). But it is precisely the *contradiction* between the recovery in the profit rate and the weakness of 'most other economic indicators' that needs to be explained. Unfortunately, Freeman's attempt to 'reconcile' the performance of the profit rate with the generally lack-lustre performance of Western capitalism in recent decades actually distracts from this task, regardless of what one might think of his new proposals for calculating the ARP.

Since the profitability crisis of the 1970s and early 1980s, capitalists have been restraining their investment in the 'real economy' and in industrial production processes in particular. The *result* has been that the ARP (calculated by dividing total surplus value by the value of real assets) has been rising over the same period (since the mid 1980s in the U.S., and since the 1990s in Japan). Such restrained investment (involving a low capital accumulation rate) can only be associated with low rates of growth in employment, wages, consumption, and GDP.

Many other studies also have indicated a recovery in profit rates despite the prolonged stagnation, in particular low growth in productive investment, since the 1970s or the early 1980s. Husson writes: 'From the neoliberal turn at the beginning of the 1980s the rate of profit has recovered considerably, but this has not lead to an increase in the rate of accumulation' (2009: 1). The fundamental reason 'why capitalism is now

investing a smaller proportion of its profits' is 'the widening gap between the social needs of humanity and the criteria specific to capitalism' (2009: 4). Foster and Magdoff also point to the contradiction between profit and investment as 'the dramatic decoupling of profits from net investment as percentages of GDP in recent years, with net private nonresidential fixed investment as a share of national income falling significantly over the period, even while profits as a share of GDP approached a level not seen since the late 1960s/early 1970s' (2009: 132).

Duménil and Lévy emphasize the increasing payment of interest and dividends as a significant factor behind the juxtaposition of recovering profitability and stagnant accumulation. They write: 'as a result of the rise of dividends paid out by corporations, the rate of retained profit [after payment of taxes, interest and dividends] diminished consistently' (2011: 60). And further that there is a 'tight relationship between the accumulation rate and the rate of retained profit, while the profit rate before the payment of interest and dividends remains significantly higher and displays a horizontal trend' (2011: 153). Orhangazi places a similar emphasis on financialisation and offers two hypotheses. The first is that 'high financial profit opportunities lead to higher financial investment and result in a decline in real investment' (2008: 882). The second is that the demand for increased financial payout ratios leaves firms with fewer funds to invest, as well as a shortening of the planning horizon of its management and increasing uncertainty, which leads to lower levels of investment' (2008: 883).

On the other hand, Callinicos (2010) and Harman (2010) affirm a *partial* recovery of profit alongside stagnant productive accumulation. Callinicos writes: 'The result of this harsh squeeze and the broader process of restructuring of which it was part was a significant recovery of profitability from the early 1980s But, despite the squeeze on productivity and real wages, the rate of profit did not return to the levels of the 1950s and 1960s' (2010: 55-56). The recovery was insufficient because 'there was too much capital to be profitably employed' (2010: 57). In a similar vein, Harman writes: 'in the absence of massive bankruptcies of the giant firms this has not been enough to restore the rate of profit to its old level. The result has been a long-term slowdown in the rate of productive accumulation...' (2010). Here is the fundamental problem: while the average profit rate recovered to some extent beginning in the mid 1980s, it has remained in the grip of a 'crisis of valorization' (a crisis in the production of surplus- value) that

underlies the very different trends of the financial and non-financial rates of profit between the early 1980s and the onset of the financial crisis in 2007 (Smith and Butovsky, 2012).

Furthermore, given the fact that capitalists have deliberately restrained their investment in the real economy in pursuit of a higher rate of profit, it is not surprising that much *idle money capital* has been accumulated, and that both the variety and quantity of financial instruments have expanded. If, to the contrary, capitalists had invested much more in real assets, the ARP would have continued to decline. The phenomenon of financialisation, whose contradictions were the proximate cause of the global slump that began in 2008, was capital's response to a crisis in profitability within the 'real economy' and more specifically to a crisis in the production of surplus value by productive, industrial capital. This 'crisis of valorization' is the real backdrop to the hoarding of idle money capital, the overloading of the credit system, and the 'irrational exuberance' (Alan Greenspan) associated with the proliferation of dubious 'financial instruments' that are nothing other than exaggerated forms of fictitious capital¹¹.

An abundant supply of money capital (whether in the form of privately issued credit or government-generated liquidity) can also help to lower interest rates. Marx mentions the relation between the expansion of money capital and a low rate of interest in his Chapter 30, 'Money Capital and Real Capital,' of *Capital*, Vol.3: 'As long as the scale of production remains the same, this expansion [of money-capital] simply gives rise to an abundance of loanable money capital as compared with the productive capital. Hence a low rate of interest.' (Marx 1981: 619)

The lower interest rate and the higher profit rate brought about by restrained investment in the real, productive economy can only contribute to raising the prices of shares, bonds, and other financial securities. Once a lower interest rate and a higher profit rate stimulate these higher prices, an increasing amount of money capital will be invested in financial instruments in pursuit not only of a higher dividend yield (a so-called income gain), but also in pursuit of a larger gap between buying and selling prices -- a so-called capital gain¹². For this

11 See Smith and Butovsky (2012: 57-58).

12 Although their emphasis lies on '[m]onetary policy that lowers interest rates', Lapavistas and Levina write: 'Low and falling interest rates have created a

reason, we sometimes find financial security price hikes even in stagnant economies.

This is a brief explanation of the contradiction between the ‘recovering’ rate of profit since the 1980s and the stagnant economic performance represented by ‘most other economic indicators,’ including the long-term and historically low interest rates prevailing in the major capitalist countries. Such an explanation depends precisely on *maintaining* the theoretical differentiation between money capital and real capital, and by insisting that only the latter participates in the formation of the ARP.

Organic Composition of Capital and Value Composition of Capital

In the following equations, which represent the rate of profit in accordance with Freeman’s approach, C is constant capital, V is variable capital, S is surplus value, N is new value (the sum of V and S), and FS is financial securities. Here,

$$\frac{S}{C + FS} = \frac{S/N}{C/N + FS/N}$$

or

$$\frac{S}{C + FS} = \frac{S/V}{C/V + FS/V}$$

We can see that increases in C/N, C/V, FS/N, and FS/V all have a negative impact on the profit rate, i.e. S/(C+FS). However, there is a tremendous difference between the first two ratios, C/N and C/V, and the last two, FS/N and FS/V.

C/N is a ratio of ‘dead to living labour’, namely Marx’s ‘Organic Composition of Capital’ (OCC), and C/V is a ratio of means of production to labour power (the wage-bill of productive labour), what Marx calls the ‘Value Composition of Capital’ (VCC)¹³. The OCC and

favorable environment for extraction of capital gains during particular periods’ (2011: 21).

13 Marx writes: ‘I call the value-composition of capital, in so far as it is determined by its technical composition and mirrors the changes in the latter, the organic composition of capital’ (Marx 1976: 762). This passage has been

the VCC are theoretically significant for Marx because increases in these ratios reflect *technical progress* -- the displacement of productive living labour by 'dead, accumulated labour' within the overall process of capitalist production and reproduction. For Marx, such progress is the most fundamental and historically significant factor contributing to the tendency of the rate of profit to fall.

By contrast, what are the implications of increases in FS/N or FS/V? One possibility is that an economy with a huge amount of financial securities relative to newly produced value (FS/N) tends to have a depressed 'rate of profit' (S/(C+FS)), and an economy with huge quantities of financial securities relative to variable capital (FS/V) will have the same tendency. Furthermore, the formula S/(C+FS) could be seen as representing a 'return on total assets' and as therefore possessing a certain empirical utility in corporate financial analysis. However, the hugely significant difference between C/N or C/V, on the one hand, and FS/N or FS/V, on the other, is that a rise in the latter ratios *need not* reflect real technical progress in the processes of commodity production and circulation. This is because increases in FS/N or FS/V can result simply from the issuance of more financial securities. This returns us to the problem identified at the end of the first section above. Financial securities are mere *titles of ownership* of capital. They form no part of the fixed constant capital stock, and nor do they necessarily represent accumulated 'dead labour.' Nevertheless, in Freeman's approach, the ratios FS/N and FS/V play a role in determining the rate of profit that is just as significant as C/V and C/N. As he explicitly acknowledges: 'My central point is that the origin of this income is not relevant to whether, when capitalized, it functions as capital' (Freeman, 2012: 181). Yet the origin of 'income', through the creation of *new value*, is central to Marx's value-theoretic analysis of the dynamics of capital accumulation. Thus, whether intended or not, Freeman's proposal would seem to go some distance toward *vitiating* Marx's law of labour-value as the key determinant of the ARP and

interpreted in different ways by Marxist theorists, with some interpreting it to mean that the organic composition of capital is the ratio of C to V (Fine and Saad-Filho 2010: 89-92). Here, I follow the interpretation of Mage (1963: 68-74), Moseley (1991: 4), and Smith and Butovsky (2012: 67; footnote 76), an interpretation which, in my view, brings the role of living productive labour in the creation of surplus value into clearer focus.

therefore the 'economic law of motion' of the capitalist mode of production that he analyzed.

Summary and Conclusion

To summarize: inclusion of financial securities in the denominator of the rate of profit leads to a 'double-counting' problem and to a denial of the theoretical differentiation between interest-bearing capital and real capital, and thus between interest and profit rates. Furthermore, such a procedure tends to undermine the most important proposition of Marx's value-theoretic analysis of capitalism -- namely that the quantity of living, productive wage-labour relative to the 'capital advanced' plays the decisive role in determining the direction of the ARP. To undermine this fundamental proposition simply because financial instruments and fictitious profits have played a greatly expanded role in contemporary 'neoliberal' capitalism amounts to cutting off one's Marxist nose to spite one's face. Nor should we abandon the notion that the profit rate and the interest rate move independently of one another. This notion -- which is also an empirical fact -- is an indispensable key to understanding the long-term 'neoliberal' contradiction between recovering rates of profit and the palpable worsening of those other 'economic indicators' that reflect the deep malaise of what used to be called 'advanced capitalism.' These are the fundamental conclusions of this article -- conclusions that suggest a very different direction for progress in empirical Marxist economics than that suggested by Freeman. In my view, such progress will require further theoretical development of our understanding of the general role of finance (and more specifically banking capital) in an increasingly crisis-prone global capitalist economy.

By way of conclusion, a few directions for such development can be briefly sketched. First, although interest-bearing capital takes no part in the formation of the ARP, financial institutions nevertheless strive for profit rates that, at the very least, match those of industrial and commercial capitals. In this sense, it can be accepted that 'non-industrial capitals compete, within [the finished form of the ARP], for a share of the total surplus value originating in production' (Freeman, 2012: 188). However, the precise mechanisms whereby financial capitals do so present a range of theoretical problems that remains to be solved. This is partly because financial institutions, above all bank capital, encompass

not only real, operating capital (such as fixed assets in building structures and business equipment), but also interest bearing capital – a fact that can be easily seen in any bank’s balance sheets. But it is also because the interest rate is generally lower than the ARP and subordinate to it.

How can bank capital earn the ARP when the rate of interest is generally lower than the ARP? One clue to answering this question was suggested in the third section above: a bank’s real, acting capital (the bank capital (K_b)) forms part of the denominator of the ARP (see equation 1 above). Even so, a major part of the capital with which banks operate remains ‘interest-bearing capital.’ And this money capital can assume a variety of ‘fictitious’ forms that can play no direct role in regulating the ‘real’ ARP – that is the ARP measured in relation to real capital assets. Further theoretical investigation of this issue is required before meaningful progress can be made in more accurately calculating the real ARP.

Second, financial profits, such as those of bank capital, consist not only of interest payments made by industrial and commercial capitals but also of many different kinds of revenues. One such revenue arises from so-called service fees, which are deducted from industrial and commercial capitalists’ surplus value. Very roughly speaking, the service fee is P_b of equation (1) above, a revenue stream originating in the money dealing operations of bank capitalists. However, interest payments and service fees also flow from households and the public sector. Whether interest payments flowing from households represent a deduction from variable capital or a transfer of surplus value (or conceivably even a transfer of constant capital in certain contexts) is a controversial issue that remains to be resolved (see for example, Baragar and Chernomas 2012). In addition, the gap between selling and buying prices of many kinds of financial securities -- from bonds, to shares, to ‘collateralized debt obligations’ (CDOs), not to mention foreign currency transactions -- has become an increasingly important source of financial profit in recent decades. These profits accruing to fictitious capital are often little more than claims on anticipated ‘future value’ that has not yet been produced – claims that arise from speculative activities and that have no substantial relation to currently or previously produced surplus value and that are effectively based on relations of ‘debt/credit’ rather than on a relation of production (Smith and Butovsky 2012). These components of financial profit evince varying degrees of ‘fictitiousness,’ and they must therefore be treated cautiously in the calculation of the ‘financial rate of profit’ and in assessing trends in the ‘real’ ARP.

Third, and this flows logically from the last point, one of the central difficulties in using official national accounts data, such as the U.S. National Income and Product Accounts (NIPA), to calculate a Marxian ARP is that the category of 'corporate profits' will always include varying amounts of 'fictitious profit.' Biases stemming from dubious financial activities can by no means be eliminated entirely from our ARP estimates. But this is a practical empirical problem pertaining above all to the *numerator* of the rate of profit, an issue *not* addressed by Freeman. All the same, this difficulty should not be adduced to justify the inclusion of financial securities in the denominator of the ARP.

Unfortunately, while Freeman has performed a useful service in calling attention to the need for better methods of calculating the Marxian ARP 'in the presence of financial markets,' his own specific proposals would lead empirical Marxian economics into a blind alley. In the context of a dramatic increase in the volume and variety of financial securities, our best strategy for improving the calculation of the Marxian ARP must be one that focuses on disaggregating the various elements of financial and corporate profits in ways that would reduce to a minimum the fictitious elements included in its numerator.

Takuya Sato is Professor in the Faculty of Economics at Chuo University, Japan.

takusato @tamacc.chuo-u.ac.jp

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References

- Albo, G., S. Gindin and L. Panitch (2010), *In and Out of Crisis: The Global Financial Meltdown and Left Alternatives*: PM Press.
- Baragar, F., and R. Chernomas (2012), Profit from Production and Profits from Exchange: Financialization, Household Debt and Profitability in 21st-Century Capitalism, *Science and Society*, 76 (3): 319-339.
- Callinicos, A. (2010), *Bonfire of Illusions: The Twin Crises of the Liberal World*: Polity Press.
- Duménil, G. and D. Lévy (2004), *Capital Resurgent*: Harvard University Press.
- Duménil, G. and D. Lévy (2011), *The Crisis of Neoliberalism*: Harvard University Press.
- Fine, B. and A. Saad-Filho (2010), *Marx's 'Capital'* (Fifth Edition): Pluto Press.
- Foster, J. B. and F. Magdoff (2009), *The Great Financial Crisis: Causes and Consequences*: Monthly Review Press.
- Freeman, A. (2010), Crisis and “Laws of Motion” in Economics: A Critique of Positivist Marxism, *Research in Political Economy*, 26: 211-250.
- Freeman, A. (2012), The Profit Rate in the Presence of Financial Markets: A Necessary Correction, *Journal of Australian Political Economy*, 70: 167-192.
- Harman, C. (2010), Not all Marxism is dogmatism: a reply to Michel Husson, *International Socialism*, 125: <http://www.isj.org.uk/index.php4?id=613&issue=125>.
- Hilferding, R. (1981), *Finance Capital. A Study of the Latest Phase of Capitalist Development*. Ed. Tom Bottomore: Routledge & Kegan Paul.
- Husson, M. (2009), Financial crisis or crisis of capitalism? *International Debt Observatory*: http://www.oid-ido.org/article.php3?id_article=1148&var_recherche=Husson
- Kliman A. (2012), *The Failure of Capitalist Production: Underlying Causes of the Great Recession*: Pluto Press.
- Kliman A., A. Freeman, N. Potts, A. Gusev, and B. Cooney (2013), The Unmaking of Marx's Capital: Heinrich's Attempt to Eliminate Marx's Crisis Theory, *The Social Science Research Network*: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2294134.
- Lapavistas, C. (2009), Financialisation, or the Search for Profits in the Sphere of Circulation, *Research on Money and Finance Discussion Paper*, 10: <http://www.researchonmoneyandfinance.org/discussion-papers/>
- Lapavistas, C. and I. Levina (2011), Financial Profit: Profit from Production and Profit upon Alienation, *Research on Money and Finance Discussion Paper*, 24: <http://www.researchonmoneyandfinance.org/discussion-papers/>
- Mage, S (1963), *The “Law of the Falling Tendency of the Rate of Profit”: Its Place in the Marxian Theoretical System and Relevance to the U.S. Economy*, Ph.D. dissertation, Columbia University.
- Marx, K. (1976), *Capital: A Critique of Political Economy, Volume One*: Penguin Books.

Marx, K. (1981), *Capital: A Critique of Political Economy, Volume Three*: Penguin Books.

Moseley, F. (1991), *The Falling Rate of Profit in the Postwar United States Economy*: St. Martin's Press.

Moseley, F. (2011), The U.S. Economic Crisis: Fundamental Causes and Possible Solutions, *International Journal of Political Economy*, 40 (3) 59-71.

Okishio, N. (1961), Technical Changes and the Rate of Profit, *Kobe University Economic Review*, 7: 85-99.

Orhangazi, Ö. (2008), Financialisation and capital accumulation in the non-financial corporate sector: A theoretical and empirical investigation on the US economy: 1973–2003, *Cambridge Journal of Economics*, 32: 863–886.

Ramos-Martinez, A. (2004), Labour, Money, Labour-Saving Innovation and the Falling Rate of Profit, in A. Freeman, A. Kliman, and J. Wells eds., *The New Value Controversy and the Foundations of Economics*: Edward Elgar: 67-84.

Smith, M. E. G. and J. Butovsky (2012), Profitability and the Roots of the Global Crisis: Marx's 'Law of Tendency of the Rate of Profit to Fall' and the US Economy, 1950-2007, *Historical Materialism*, 20 (4): 39-74.

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