Marxian Economics

Dyrehaugen Web Notebook

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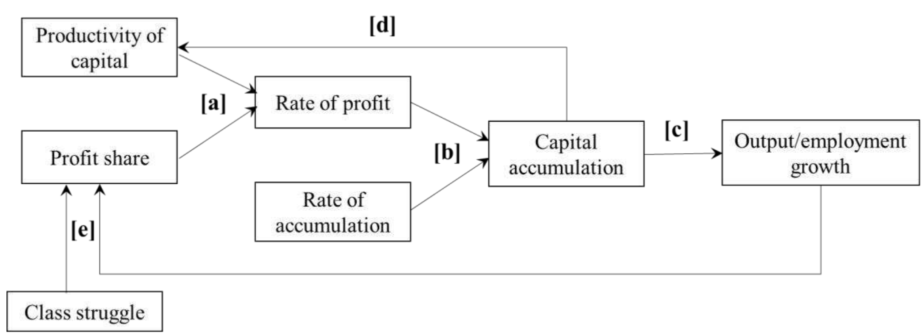
Growth Models

Duque Garcia[1,2]

This paper seeks to evaluate the rate of profit and the rate of accumulation as determinants of the growth rate in Colombia during 1967-2019, using a VAR model.



The dynamic interaction between the Marxian ratios and the economic growth is also related to the technical change.

Technical conditions of production change with the accumulation of capital. The productivity of labor and capital intensity tend to change affecting, in turn, the productivity of capital and the rate of profit.

These specific changes have been classified in different types of technical change (Harrod-neutral, Marx-biased, Solow-neutral, etc.) that affects the profit rate in different ways. On the other hand, the profit rate is, in turn, a crucial variable in

[1] Duque Garcia (2021) Economic Growth and the Rate of Profit in Colombia 1967-2019: A VAR Time-Series Analysis (pdf)

[2] Duque Garcia (2022) Dynamics of Employment and Accumulation of Capital in Colombia, 1965-2019: An Econometric Analysis (pdf)

the choice of technology since the capitalists choose technologies that maximize their profit rate.

Finally, the (changing) technical conditions of production determine the degree to which accumulation translates into output and employment growth.

According with the previous literature review, the following general growth equation is estimated:

$$g = f_1(r, a) \tag{2.1}$$

where:

g = Growth rate of per capita Colombian GDP.

r = Rate of profit.

a = Rate of accumulation (or rate of capitalization of surplus-value)

We expect to find that, ceteris paribus, an increase in the rate of accumulation or in the profit rate will increase the growth rate.

The empirical estimation of Marxian categories has been a controversial issue. Some authors have argued that Marxian ratios cannot be estimated from conventional national accounts since Marxian ratios are based on values that are abstract and unquantifiable by nature.

Nonetheless, there are several reasons that justify the use of conventional price-based statistics in the estimation of Marxian ratios.

On the one hand the Marxian ratios are dimensionless numbers, i.e., they are not expressed in value-labor or monetary units. Consequently, since monetary ratios are dimensionally compatible with value ratios, using the former as an estimate of the latter is legitimate due to the close empirical lineal relation between labor values and prices.

On the other hand, several authors have pointed out the monetary nature of Marx's economic theory. Constant capital, variable capital and surplus-value are also monetary magnitudes.

The rate of profit is defined as the ratio of the surplus-value to the total capital invested. There are several methods to estimate the rate of profit from the national accounts data.

Most authors only use the *stock* of fixed capital in the denominator. Some authors embrace the unproductive/productive labor debate and, consequently, subtract the unproductive wages from the surplus-value, or only calculate the rate of profit for productive sectors. Some authors use fixed capital calculated at historical costs while the majority use fixed capital calculated at replacement costs.

The Marxian literature registers two methods to deal with the mixed income (income from small unincorporated enterprises owned by households and self-employed workers, i.e., non-capitalist commodity production).

Some authors divide that income into wages and profits while others do not include it in the estimation of the Marxian ratios. (??)

Following the majority of literature, we estimate the average rate of profit before taxes, r_t , for the overall Colombian economy as follows:

$$r_t = \frac{P_t}{K_t} \tag{2.2}$$

$$P_t = Y_t - W_t - MI_t - CFC_t \tag{2.3}$$

Where:

P_t = Estimated aggregated profits

K_t = Estimated stock of fixed capital

Y_t = Colombian GDP.

W_t = Employee compensation

MI_t = Mixed income (income from small non-capitalist commodity production)

CFC_t = Consumption of fixed capital

The *accumulation rate*, a_t is the share of profits that is accumulated. This variable is also known as the *rate of capitalization of surplus-value* or the *propensity to invest* in Post Keynesian literature.

Mathematically:

$$a_t = \frac{I_t}{P_t} \tag{2.4}$$

Where,I_t is the gross fixed capital formation (excluding residential buildings), and P_t are the aggreagte profits.

For descriptive purposes, we also calculate the decomposition of the rate of profit into the profit share and the productivity of capital:

$$r_t = \frac{P_t}{K_t} = (\frac{P_t}{Y_t^c})(\frac{Y_t^c}{K_t}) \tag{2.5}$$

Where,

$$Y_t^c = Y_t - MI_t - CFC_t \tag{2.6}$$

As we exclude mixed income previously, both the profit share, $P_t \ / \ Y_t^{\ c}$, and the productivity of capital, $Y_t^{\ c} \ / \ K_t$, are calculated in relation to the capitalist new value, which is the GDP less the mixed income and the consumption of fixed capital. The profit share reflects the impacts of *distributive* factors in the rate of profit while the productivity of capital (also known as the potential maximum rate of profit) reflects the impacts of *technological* factors in the rate of profit.

The results are consistent with the theoretical predictions of the Marxian models and the Cambridge equation: growth rate will increase with the profit rate and the accumulation rate.

Performing a Vector Autoregressive (VAR) estimation with generalized impulse-response functions, we find that positive shocks in the rate of accumulation and the rate of profit raise the growth rate in the short-run. A feedback effect from the growth rate to the Marxian variables was also founded. All those results are consistent with and provide empirical support for the Marxian macroeconomic models reviewed in this paper. In those models, the growth rate is a process driven by the behavior of the rate of accumulation and rate of profit. The VAR models also allow us to explore the dynamic interactions between the Marxian ratios. We find an inverse simultaneous relationship between the rate of accumulation and the rate of profit. This finding could be explained by the compulsion to capital expansion in a context of decreasing profits. The results presented in this paper expand the body of Marxian empirical research on the rate of profit. Our econometrical analyses provide empirical support for the Marxian claim about the fundamental role of the rate of profit, and its constituent elements, in the accumulation of capital and, consequently, in the economic growth.

3

Circulation

3.1 Critique of Classical Political Economy

Bo Harvey

According to the Marxian critique of the *social-contractual tradition*, the latter is ahistorical. Whether through recourse to a 'state of nature' or to an 'original position,' this political philosophical tradition depends upon the erasure or abstraction away from the historical conditions of possibility of what appears as, ex post facto or, by way of a thought experiment, the '*consent of the governed*.'

Marx locates the very terrain of liberal political philosophy in the 'sphere of circulation;' that 'very Eden of the innate rights of Man… the exclusive realm of Freedom, Equality, Property, and Bentham.'

For Marx, '*simple circulation*' functions as the ideological and methodological *abstraction* upon which classical political economy is constructed.

Classical political economy treats labour-power as though it can be relied upon to be available a priori, without recognising the social and historical forces that produce it.

Classical political economy 'forgets' the inequality subtending all bourgeois equality.

Harvey (2023) The Future of Political Philosophy

4

Keynes vs Marx

Roberts

On this blog and elsewhere, I have developed a long and detailed critique of Keynesian economics. But suffice it to say now that free market economics claims that prosperity will be achieved as long as capitalists are free of any regulations (environmental, safety, health etc) and of too much taxation, while markets are kept ‘competitive’ and free of monopolies, particularly in the ‘labour market’ ie. trade unions. Then capitalists can compete freely to maximise profits and in doing so will invest in new technology to boost the productivity of labour and employ more workers, whose wages will then rise. Everybody wins.

The Keynesians retort that free market capitalism (‘laisser-faire economics’, Keynes called it) does not work because the market economy has faultlines that generate a chronic lack of ‘effective demand’. Holding down wages to boost profits means capitalists cannot sell all their production and are periodically forced into laying off workers and unemployment ensues. It is necessary for governments to intervene and raise wage levels and/or increase government spending to fill the gap in aggregate demand. Then this will create enough demand for capitalists to sell their goods and make a profit. So a judicious macro management of the market economy can work for all.

The Marxist view is that it is not question of the lack of demand or low wages or inequality in the distribution of incomes, but a problem in the profit system of production itself. **The contradiction of capitalism is that, despite the efforts of capitalists, average profitability will fall over time.** This causes recurrent and regular crises of production that cannot be resolved by the ‘free markets’ or Keynesian macro-economic management.

Roberts (2023) Keynes and the left

Roberts (2013) Contributions of Keynes and Marx (pdf)

5

Crises

5.1 Crises Theories

Roberts

Marxist scholars and economists as well as activists have found several theories of crises in his works, all of which have got more support than Marx's law of profitability, actually. There is the view that capitalism goes into slumps because of the lack of demand from workers because their wages are too low to buy the goods that capitalists sell (underconsumption). There is the view that capitalist blindly produce too much relative to potential profits or demand so there is a collapse (overproduction); and there is the view that capitalism accumulates in an imbalanced way so that sectors get out of line, leading to collapse that spreads generally (disproportion). Finally, there is the view that crises come about because profits are squeezed by too high wages (profit squeeze). But I and others who hold to a Marxist theory of crises based on the law of the tendency of the rate of profit to fall reckon that these other theories are a wrong interpretation of Marx's view on crises and that he also dismissed them. We start from the view that in a profit-making economy, surely crises must be caused by something that goes wrong with profits, not wages, not demand and not imbalances.

Marx's law is two-sided. There is a tendency – 'the law as such' – and then there are countertendencies. But the law holds that these countertendencies will not overcome the law as such (the tendency) ultimately or over time. *"They do not abolish the general law. But they cause that law to act rather as a tendency, as a law whose absolute action is checked, retarded and weakened by counteracting circumstances."* – Marx.

The law as such (that the rate of profit in capital accumulation will eventually fall) is based on just two realistic assumptions. The two assumptions are: 1) the law of value operates, namely that value is only created by living labour; and 2) capitalist accumulation leads to a rising organic composition of capital. These two assumptions (or 'priors') are not only realistic: they are self-evident. On the first, even a child can see that nothing is produced unless living labour acts. The production of use values is necessary to create value. *"Every child knows a nation which ceased to work, I will not say for a year, but even for a few weeks, would perish."* Marx to Kugelmann July 11, 1868.

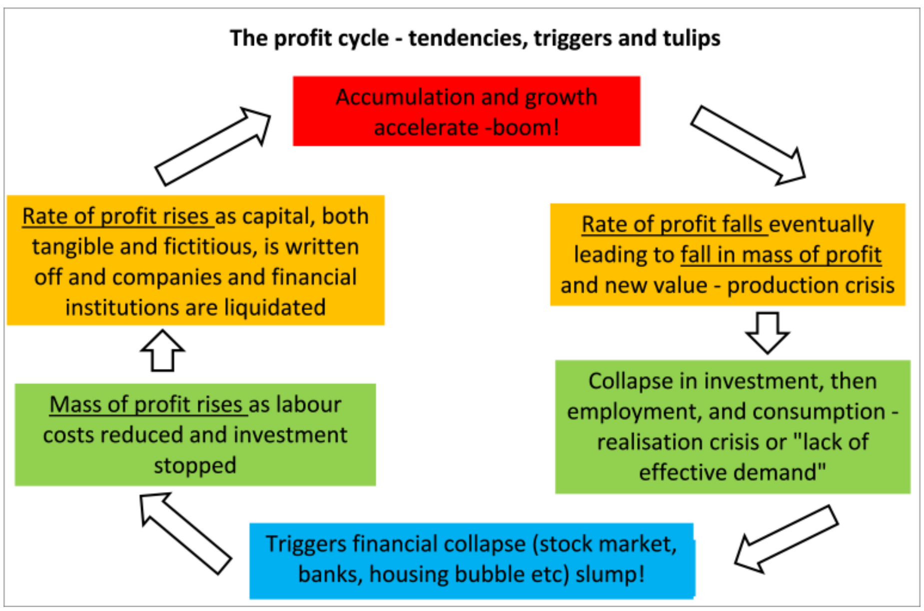
A rising organic composition of capital under capitalism over time is also self-evident. The huge increase in labour productivity under capitalism is a result of mechanisation. Yes, that can create new jobs, but it is essentially labour-shedding process. And while a new means of production might contain less value that an older similar means of production, usually means of production are replaced by a new and different system of production, which contains more value than the value of the means of production they have replaced. As Marx explains in the Grundrisse: *"What becomes cheaper is the individual machine and its component parts, but a system of machinery develops; the tool is not simply replaced by a single machine but by a whole system... Despite the cheapening of individual elements, the price of the whole aggregate increases enormously"*. Capital needs higher productivity but gets it through new labour-shedding means of production.

the rate of profit has not fallen (and does not fall) in a straight line. There are counteracting influences to the law as such. They include: a rising rate of exploitation; the cheapening of constant capital values; wages dropping below the value of labour power; foreign trade for higher profitability for national capitals etc. But Marx says these counteracting factors *"do not do away with the law but impair its effect. The law acts a tendency. And it is only under certain circumstances and only after long periods that its effects become strikingly pronounced."*

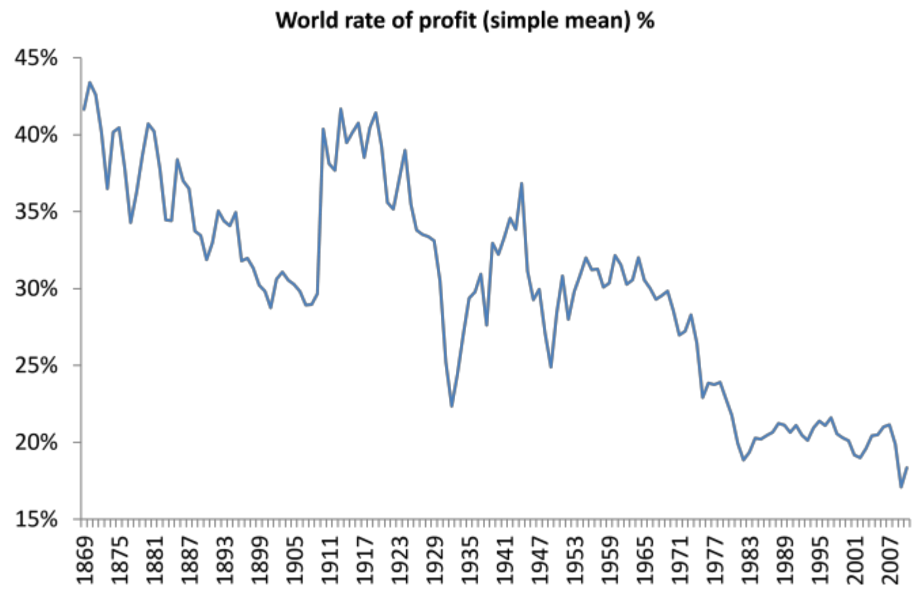
The main countertendency, a rising rate of surplus value, cannot overcome the law as such indefinitely. First, there is a limit to the rate of surplus value (24 hours in a day) and there is no limit to the expansion of the organic composition of capital. Second, there is a 'social limit' to a rise in the rate of surplus value, namely labour and society sets a minimum 'social' living standard and hours of work etc.

Marx's law is not only logically consistent, given those realistic assumptions, it can be empirically validated. The empirical questions are: does the rate of profit fall over time as the organic composition of capital rises? Does the rate of profit rise when the organic composition falls or when the rate of surplus value rises faster than the organic composition of capital? Does the rate of profit rise, if there is sharp fall in the organic composition of capital in a slump? There is plenty of empirical evidence to show that the answer is yes to all these questions: for the US economy and, more recently, for the world economy.

The law leads to a clear causal connection to regular and recurrent crises (slumps). It goes from falling profitability to falling profits to falling investment to falling employment and incomes. A bottom is reached when there is sufficient destruction of capital values (writing off plant and equipment, bankruptcy of companies, reduction in wage costs) to raise profits and then profitability. Thus there is a cycle of boom and slump driven by the law of motion of profitability.



Marx's law of the tendency of the rate of profit to fall makes a fundamental prediction: that, over time, there will be fall in the rate of profit globally, delivering more crises of a devastating character. And great work has been done by modern Marxist analysis that confirms that the world rate of profit has indeed fallen over the last 150 years (http://gesd.free.fr/maito14.pdf). Here is a graph of the work of Esteban Maito on a world rate of profit.



So the law predicts that eventually the rate of profit will fall and this will lead to a series of crises. And, as the organic composition of capital rises globally, the rate of profit will fall, despite counteracting factors and despite successive crises. This shows that capital as a mode of production and social relation is transient. It has not always been here and it has ultimate limits, namely capital itself. It has a use-by date. That is the essence of the law for Marx.

That Marx's law of profitability provides an underlying causal explanation of regular and recurring crises under capitalism, with predictive power, does not exclude other immediate causes or triggers like banking and financial crises. The role of credit is an important part of crisis theory. The tendency of the rate of profit to fall engenders countertendencies, one of which is to expand credit and switch surplus value into investment in fictitious capital rather than into lower profit productive capital, with disastrous consequences, as the Great Recession shows.

Roberts (2015) The two Michaels (Heinrich and Roberts) in Berlin – dogmatism versus doubt

5.2 Financialization or Profitability

Roberts

What does the term 'financialisation' mean and does it add value to our understanding of the contradictions of modern capitalism and guide us to the right policy to change things? I don't think so. This is because either the term is used so widely that it provides very little extra insight; or it is specified in such a way as to be both theoretically and empirically wrong.

The wide definition mainly quoted by the financialisation school was first offered by Gerald Epstein. Epstein's definition was "financialization means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies." As you can see, this tells us little beyond the obvious that we can see in the development of modern, mature capitalism in the 20th century.

But as Epstein says: "some writers use the term 'financialization' to mean the ascendancy of 'shareholder value' as a mode of corporate governance; some use it to refer to the growing dominance of capital market financial systems over bank-based financial systems; some follow Hilferding's lead and use the term 'financialization' to refer to the increasing political and economic power of a particular class grouping: the rentier class; for some financialization represents the explosion of financial trading with a myriad of new financial instruments; finally, for Krippner (who first used the term – MR) herself, the term refers to a 'pattern of accumulation in which profit making occurs increasingly through financial channels rather than through trade and commodity production' ".

The 'financialisation hypothesis' reckons that "money capital becomes totally independent from productive capital (as it can directly exploit labour through usury) and it remoulds the other fractions of capital according to its prerogatives." And if "financial profits are not a subdivision of surplus-value then…the theory of surplus-value is, at least, marginalized. Consequently, profitability (the main differentiae specificae of Marxist economic analysis vis-à-vis Neoclassical and Keynesian Economics) loses its centrality and interest is autonomised from it (i.e. from profit – MR)."

financialisation is really a post-Keynesian theme "based on a theory of classes inherited from Keynes that dichotomises capitalists in two separate classes: industrialists and financiers." The post-Keynesians are supposedly 'radical' followers of Keynes from the tradition of Keynesian-Marxists Joan Robinson and Michel Kalecki, who reject Marx's theory of value based on the exploitation of labour and the law of the tendency of the rate of profit to fall. Instead, they have a distribution theory: crises are either the result of wages being too low (wage-led) or profits being too low (profit-led). Crises in the neoliberal period since the 1980s are 'wage-led'. Increased ('excessive'?) debt was a compensation mechanism to low wages, but only caused and exacerbated a financial crash later. Profitability had nothing to do with it.

As Mavroudeas explains, the hypothesis goes: "The advent of neoliberalism in the 1980s transformed radically capitalism. Liberalisation and particularly financial liberalization led to financialisation (as finance was both deregulated and globalized). This caused a tremendous increase in financial leverage and financial profits but at the expense of growing instability. This resulted in the 2008 crisis, which is a purely financial one."

Linking debt to the post-Keynesian distribution theory of crises follows from the theories of Hyman Minsky, radical Keynesian economist of the 1980s, that the finance sector is inherently unstable because "the financial system necessary for capitalist vitality and vigor, which translates entrepreneurial animal spirits into effective demand investment, contains the potential for runaway expansion, powered by an investment boom." The modern follower of Minsky,Steve Keen, puts it thus: "capitalism is inherently flawed, being prone to booms, crises and depressions. This instability, in my view, is due to characteristics that the financial system must possess if it is to be consistent with full-blown capitalism." Blakeley too follows closely the Minsky-Kalecki analysis and offers it as an improvement on or a modern revision of Marx.

Many in the financialisation school go onto argue that 'financialisation' has created a new source of profit (secondary exploitation) that does not come from the exploitation of labour but from gouging money out workers and productive capitalists through financial commissions, fees, and interest charges ('usury'). I have argued in many posts that this is not Marx's view.

Post-Keynesian authors and supporters of financialisation like JW Mason refer to the work of mainstream economists like Mian and Siaf to support the idea that modern capitalist crises are the result of rising inequality, excessive household debt leading to financial instability and have nothing to do with the failure of profit ability in productive investment. Mian and Sufi published a book, called the House of Debt, described by the 'official' proponent of Keynesian policies, Larry Summers, as the best book this century! In it, the authors argue that "Recessions are not inevitable – they are not mysterious acts of nature that we must accept. Instead recessions are a product of a financial system that fosters too much household debt".

For me, financialisation is a hypothesis that looks only at the surface phenomena of the financial crash and concludes that the Great Recession was the result of financial recklessness by unregulated banks or a 'financial panic'. Marx recognised the role of credit and financial speculation. But for him, financial investment was a counteracting factor to the tendency for the rate of profit to fall in capitalist accumulation. Credit is necessary to lubricate the wheels of capitalist commerce, but when the returns from the exploitation of labour begin to drop off, credit turns into debt that cannot be repaid or at serviced. This is what the financialisation school cannot explain: why and when does credit turn into excessive debt?

It was fall in profitability ('low risk-adjusted returns on productive capital') in productive investment and the rise in interest costs that led to the switch to what Marx would call investment in fictitious capital. But this does not mean that finance capital is now the decisive factor in crises or slumps. Nor does it mean the Great Recession was just a financial crisis or a 'Minsky moment' (to refer to Hyman Minsky's thesis that crises are a result of 'financial instability' alone). Crises always appear as monetary panics or financial collapses, because capitalism is a monetary economy. But that is only a symptom of the underlying cause of crises, namely the failure to make enough money!

Faced with falling profitability in the productive sphere, capital shifts from low profitability in the productive sectors to high profitability in the financial (i.e., unproductive) sectors. But profits in these sectors are fictitious; they exist only on the accounting books. They become real profits only when cashed in. When this happens, the profits available to the productive sectors shrink. The more capitals try to realize higher profit rates by moving to the unproductive sectors, the greater become the difficulties in the productive sectors. This countertendency—capital movement to the financial and speculative sectors and thus higher rates of profit in those sectors—cannot hold back the tendency, that is, the fall in the rate of profit in the productive sectors.

The deterioration of the productive sector in pre-crisis years is thus the common cause of both financial and non-financial crises. If they have a common cause, it is immaterial whether one precedes the other or vice versa. The point is that the (deterioration of the) productive sector determines the (crises in the) financial sector.

It is ironic that these radical followers of Keynes look to the dominance of finance as the new form of (or stage in) capital accumulation because Keynes thought that capitalism would eventually evolve into a leisure society with the 'euthanasia of the rentier' ie the financier, would disappear. It was Marx who predicted the rise of finance alongside increasing centralisation and concentration of capital.

The rejection of changes in profits and profitability as the cause of crises in a profit-driven economy can only be ideological. It certainly leads to policy prescriptions that fall well short of replacing the capitalist mode of production. If you think finance capital is the problem and not capitalism, then your solutions will fall short.

The financialisation school needs to remember what one of its icons, Joan Robinson once said: *"Any government which had both the power and will to remedy the major defects of the capitalist system would have the will and power to abolish it altogether".*

Roberts (2018) Financialisation or profitability?

Roberts

Despite increasing evidence that Marx's law of profitability is valid both theoretically and empirically and very relevant to explaining regular and recurring crises under capitalism, this is still denied by many. Indeed, the post-Keynesians thesis of financial crises continues to hold sway among many. The 'financialisation hypothesis' is that the cause of modern capitalist crises is to be found in the 'financialisation' of what used to be industrial capitalism; and this has caused rising inequality and capitalist crises, not falling profitability or increased exploitation in investment and production.

At IIPPE we had one paper that lent further doubt to this view. Niall Reddy of the University of Witwatersrand, Johannesburg, South Africa argued the evidence dd not show that that non-financial firms were engaged increasingly in financial investment over productive investment. Increases in cash holdings by such firms were more driven by tax advantages and the need to build funds for research. “Neither of these implies a substitution of financial for real investment, which calls into question an important mechanism thought to connect financialisation to secular stagnation and rising nequality.”

I have written extensively on the financialization thesis. But the most devastating refutation of the financialization hypothesis (FH), both theoretically and empirically comes from a new paper not presented at IIPPE, by Stavros Mavroudeas and Turan Subasat.

On the theory, the authors say: *“The Marxisant versions of the FH ultimately concur with the mainstreamers and the post-Keynesians that the unproductive-capital dominates productive-capital, and that the former acquires autonomous (from surplus-value) sources of profit. Consequently, they converge to a great extent with the Keynesian theory of classes and consider industrialists and financiers as separate classes. For Keynesian analysis, this is not a problem as it posits that different factors affect savings and investment. However, Marxism conceives interest is part of surplus-value and financial profits depend upon the general rate of profit, Marxism does not elevate the distinctiveness of money-capital and productive-capital to the point of being separate classes. Finally, the Marxisant FH currents have a problematic crisis theory. Instead of a general theory of capitalist crisis, they opt for a conjunctural one… the FH eventually ascribes to a Keynesian possibility theory of the crisis which has well-known shortcomings. In conclusion, the FH variants fail to offer a realistic account of the rise of fictitious-capital activities during the recent period of weak profitability and increased over-accumulation of capital. Marxist theory “does so by realistically keeping the primacy of the production sphere over circulation and also the notion that interest is part of surplus-value extraction.”*

And empirically: *First, the claim that most of the largest multinational companies are financial is not true. Over the last 30 years the financial sector share in GDP has declined by 51.2% and the financial sector share in services declined by 65.9% of the countries in our study. “Although the rapid expansion in the financial sector observed in some countries before the 2008 crisis suggests that the financial sector may have played an important role in deindustrialization, this situation seems to be cyclical when it comes to a wider time frame.”*

Rather than look for crises based on too much debt, financial recklessness or Minsky-type financial instability, Marx’s law of profitability is still the most compelling explanation of crises.

Roberts (2023) IIPPE 2023 Part Two – China, profitability and financialisation

6

Impotent Capital

6.1 Ground Rent in South America

Purcell

While the exploitation of domestic working class forms the quantitative bulk of surplus value appropriated by capital, it is inflows of extraordinary profits paid by capital and workers consuming raw materials in the form of ground rent which is the foundation for the specific qualitative modality taken by the valorisation of capital in South America. An important upshot of this insight is that labour does not need to operate at the world average levels of productivity. The transfer of ground rent from the rent-bearing sector, via state policies, permits the 'normal' valorisation of capital at the world average market rate of profit in the otherwise backward spaces of the national economy. As a result, capital does not follow its world historical necessity to develop the forces of production while still valorising at the average rate of profit through the appropriation of ground rent. This is the tragedy of capitalism and development in South America which *renders capital impotent*, restricting valorisation to the small scale of internal markets and negating the historical potential of the South American working class.

The limited development potentialities of these national territories is rooted in the global inflow of extraordinarily large masses of social wealth in the form of differential ground rent. This explains why capital has not had to reckon with landed property (as happened in South Korea, for example) as a barrier for its accumulation. Instead, capital has been able to valorise at the average world market rate of profit by appropriating a portion of ground rent and leaving another portion that reproduces the landlords as a class. So, far from simply being a source of cheap raw materials extracted by global capital – where the numerous accounts of neo-extractivism start and finish – these national spaces are determined as sources of ground rent recovery by global industrial capital. Especially when fragments of global industrial capital locate a portion of manufacturing in the domestic market for the valorisation of technologically obsolete capital in world market terms. The extent to which various centre-periphery frameworks have incorporated ground rent in their analysis, as many of the authors show, has been limited in methodological and theoretical terms. Subsumed under nebulous concepts like 'unequal exchange' or more recently 'extractivism', ground rent is rendered indistinguishable from other forms of 'economic rent' extraction through finance, digital platforms, institutional organisation, and the like.

nderstanding the limits to development as principally the outcome of unequal power relations between nations and firms is politically and intellectually untenable to inform working class organisation and action. With the return of the national question as a strategic horizon for the contemporary left, these political conclusions may read as counterintuitive, if not outright scandalous – especially for those who maintain that combatting super-exploitation is imperative for national liberation and anti-imperialist strategies. To avoid confusion, the point is not that economic domination as a set of empirically observable power relations does not exist – as any return to the archive will attest – but that these observations can only remain at the level of surface appearance if the problem of development is extrapolated into the realm of political theory. This can be detected in the current revival of national liberation for autonomous development through appeals to the politics of socialist neo-republicanism as the revolutionary basis of leftist projects.

This critical and practical unfolding of the general determinations of capital is based on a commitment to the Marxian critique of political economy. To be clear, this has nothing to do with what Marx did or did not say in Capital but is a political and intellectual project to reproduce the concrete by means of thought from the vantage point of the valorisation of capital in South America. Unequivocally, this requires understanding the accumulation and appropriation of ground rent as the concrete form which reproduces the South American working class. In other words, this is about method and the necessary relation of theory and practice. Far from a dry mathematical treatise common in the positivist canon of Marxian economics concerned with magnitudes of value, this is a unique dialectical approach which squares the circle between qualitative social form analysis and rigorous quantitative analyses of the formation of the general rate of profit. Indeed, this is a methodologically minded text designed to inform conscious international political action of the working class beyond the confines of leftist national projects restricted to the small scale of domestic markets.

Purcell (2023) Impotent Capital

7

Inequality

Roberts on MIlanovic Vision of Inequalty

Visions of Inequality takes a different approach from the stats. Milanovic identifies those authors that he considers have the most important explanations of why inequality of wealth and income is so great between humans. As Milanovic puts it: “The objective of this book is to trace the evolution of thinking about economic inequality over the past two centuries, based on the works of some influential economists whose writings can be interpreted to deal, directly or indirectly, with income distribution and income inequality. They are François Quesnay, Adam Smith, David Ricardo, Karl Marx, Vilfredo Pareto, Simon Kuznets, and a group of economists from the second half of the twentieth century (the latter collectively influential even as they individually lack the iconic status of the prior six).” The latter includes Thomas Piketty.

It is not possible to go through all the ‘visions’ of inequality described by Milanovic, so unsurprisingly, I shall concentrate on Milanovic’s analysis of Marx on inequality. Milanovic reckons that Marx’s “theory of value can be treated entirely distinctly (that is, left out) from the discussion of forces that, according to Marx, affect income distribution between classes.” That is an interesting observation that I am not sure is correct – as I shall attempt to explain below.

Milanovic goes on that “it should be noted that Marx was generally uninterested in questions of inequality in the way that we pose them now. His view, shared by most Marxists, was that unless the background institutions of capitalism—namely, private ownership of means of production and hired labor— were swept away, any political struggles to reduce inequality could at best lead to reformism, trade unionism, and what Lenin later called “opportunism.” Inequality was thus a derivative, secondary issue, barely addressed in Marx’s writings.”

Again, I am not sure that it is correct that Marx was not interested in inequality, although Milanovic correctly identifies that Marx saw inequality and poverty under capitalism as the result of the private ownership of the means of production and the exploitation of labour power, not due to regressive taxation, low wages or monopoly, as such. Milanovic points out that "descriptions of poverty and inequality fill the pages of Capital, especially its first volume. But they are there to show the reality of capitalist society and the need to end the system of wage-labor. They are not there to advocate reductions of inequality and poverty within the existing system."

Milanovic makes the currently usual view that Marx's view of capitalism and thus inequality was 'unfinished'. He accepts that "some important parts (like the discussion of the tendency of the profit rate to fall) are clearly unfinished." For Milanovic, Marx wrote in a chaotic way, but even so there were "true diamonds in the rough". And Marx was no dry theorist. Despite the dearth of empirical data in the mid-19th century, he diligently tried to dig up evidence to back his vision of capitalism. "Marx's use of data and facts marked a dramatic improvement upon Ricardo and Smith. Pareto would take this to a new level because of his access to the fiscal data on income distribution. …Marx, too, cited fiscal data on English and Irish income distributions—the same type of data that three decades later would provide the empirical core of Pareto's claims."

Marx noted that there was *"simultaneously an increase in the real wage and a declining labor share."* This, I will argue below, is key to Marx's view on inequality.

Marx considered that any distribution of the means of consumption was only a consequence of the distribution of the conditions of production. And the latter was a feature of the *mode* of production.

The capitalist mode of production rests on the fact that the material conditions of production are in the hands of non-workers in the form of property in capital and land, while the masses are only owners of their personal condition of production, of labor power. Thus, the distribution of income and wealth cannot be changed in any material way until the system is changed. The issue is the abolition of classes, not marginal alteration of income inequality. *"To clamor for equal or even equitable remuneration on the basis of the wages system,"* Marx writes, *"is the same as to clamor for freedom on the basis of the slavery system."*

his is where I find it strange for Milanovic to claim (as above) that Marx's theory of value has no connection to his explanation of inequality. Indeed, Milanovic says that Marx's theory of exploitation is of commodity *"exchange that is based fully on the law of value: the workers are not treated unfairly, nor are they paid less than the value of their labor-power. Exploitation comes from this specific feature of labor: its ability to produce value greater than the value of goods and services expended in that effort and therefore necessary to compensate it. From the theory of exploitation comes also the conclusion that profit is the surplus value in another guise."*

From Marx's value theory, we can derive a theory of classes in capitalist society. Also, what flows from Marx's value theory is that wage differences among countries are generated by the rise in the technical composition of capital and productivity differentials.

Marx argues that the very concept of what is the minimal acceptable wage is historical; "indeed, it would be hard to imagine Marx, for whom all economic categories are historical, not applying the same logic to labor-power." (Milanovic). As Marx says in volume III of Capital: "The actual value of labour-power diverges from the physical minimum; it differs according to climate and the level of social development; it depends not only on the physical needs but also on historically-developed social needs." I think this observation is important in the debate about whether the exploitation of the Global South by the rich imperialist bloc is mainly due to very low wages in the former rather than mainly due to the productive power of the imperialist bloc to grab the lion's share of profit through international trade and investment.

On inequality, Milanovic refers to Marx's view that it is a relative concept. And on needs, Marx explains: "Our wants and pleasures have their origin in society; we therefore measure them in relation to society; we do not measure them in relation to the objects which serve for their gratification. Since they are of a social nature, they are of a relative nature."

Falling profit rate

Milanovic takes us through Marx's law of the tendency of the rate of profit to fall in a broadly accurate manner. However, he accepts the distortion of that law propounded by Michael Heinrich and others that the law is 'indeterminate'. "Heinrich is right to state that the increase in s / v is not a force that counteracts the law". But Milanovic 'saves' the law with various arguments that a rising rate of surplus value will not sufficiently counteract a rising organic composition of capital and "We are thus back to Marx's original, and crucial, contention that the profit rate will decline with greater capital intensity of production unless the effect of that change is offset by greater exploitation of labor."

Milanovic picks up a point that many Marxists miss about the law, namely that it is both the explanation of regular and recurring cycles of crises (booms and slumps) and also a secular law indicating the ultimate failure of capitalist production to develop the productive forces for humanity. "It is the joint or rather simultaneous action of the two—the coincidence of the secular low profits and economic crises—that will spell the end of capitalism."

Milanovic goes into a detailed account of the counteracting forces that deter or slow the fall in the rate profit to be found in Volume 3 of Capital chapter 14. Then he reaches this conclusion. "The tendency of the profit rate to fall must reduce inequality because capitalists (together with landlords who are treated just as a subgroup of capitalists) are the richest class. Clearly, if the top class's incomes do not rise, or even decline, we may expect an improvement in distribution. This may be true even if there is an increased concentration of capitalists' incomes and some capitalists become very rich while others go bankrupt and join workers."

And he presents us with four possible income distributions from Marx's law of profitability.

Table 4.7 Four Possible Evolutions of Income Distribution in Marx

Optimistic scenario Secular increase in real wage Secular decline in the profit rate (Possible modern equivalent: Western Europe)	Regressing society scenario "Immiseration of labor" Secular decline in the profit rate (Possible modern equivalent: some Latin American societies)
Polarized society scenario Secular increase in real wage Increasing concentration of capital (Possible modern equivalent: United States)	Breakdown scenario "Immiseration of labor" Increasing concentration of capital (Possible modern equivalent: South Africa)

These are based on his assertion that a falling rate of profit will mean reduced inequality because real wages rise. But this does not work for me. I think it confuses the rate of surplus value with the rate of profit. Milanovic's four possibilities arise from his acceptance that Marx's law is indeterminate and that it is the rate of profit that decides changes in inequality, not the rate of exploitation. Inequality can rise when the rate of profit is falling because the rate of surplus value and the mass of profit are rising. A rising s/v can mean more s for an ever smaller group of capitalists and a rising v for an ever greater group of workers.

Since 2000, the rate of profit has stagnated or fallen but inequality continued to rise along with a rising rate of surplus value.

Milanovic also claims that the development of 'homoploutia', the supposed trend among the richest income groups to be both labor-income and capital-income rich "by receiving high wages in return for their high-skill labor as well as profits from their ownership of assets" weakens Marx's theory of exploitation. I don't think so, particularly as there is strong evidence that the top earners still get their income from capital rather than wages.

The idea that a rising rate of profit is necessary to increase inequality is not Marx's, but that of Thomas Piketty, in his acclaimed book, Capital in the 21st century. Indeed, as Milanovic contrasts Piketty's theory of inequality with that of Marx. *"Piketty has thus proposed an entirely new and compelling argument that peaceful development of capitalism leads to the breakdown of the system—not because the profit rate crashes to zero and capitalists give up investing (as Marx would have it), but for the very opposite reason that capitalists tend to end up in possession of a society's entire output and that is a socially unsustainable* *situation. In Marx's view, capitalists (as a class) fail because they are not too successful; in Piketty's view, they fail because they are too successful."*

To sum up, Milanovic says that *"we have on offer three theories of income distribution in capitalism. First, there is Marx's theory, by which increasing concentration of ownership of capital and decreasing rate of profit ultimately lead to the death of capitalism through zero investments. Second, we have Kuznets's hypothesis of a wave of rising and then decreasing inequality— or as I have argued, successive waves. And third, now, there is Piketty's theory of unfettered capitalism that, left to its own devices, maintains an unchanged rate of return and sees the top earners' share of capital income increasing to the point that it threatens to swallow the entire output of the society, and only a political response can prevent such an outcome."*

Given Marx's compelling explanation of inequality of income and wealth derived from his theory of value and exploitation, Milanovic asks *"why do we tend to ignore his views on equality? The answer, I suspect, is that after the cataclysmic failures of socialism and ideological ascendance of neoliberal ideology, we have tacitly accepted the permanence of capitalism. If one has such a view, then indeed it makes sense to refashion Marx as a pro-equality thinker who cared about trade union activity, equal opportunity, higher workers' wages and the like. In other words, if we have given up on the idea of ending capitalism, we can try to repurpose Marx into the apostle of equality under capitalism. But it may not be easy. After all, if the Left tosses out the idea of transcending capitalism, can it be said to be Left-wing at all?"*

Indeed. But I would remind the reader of what Milanovic concluded in another book of his, Capitalism Alone. *"Capitalism gets much wrong, but also much right—and it is not going anywhere. Our task is to improve it."* Milanovic does not like capitalism and its inequalities, but to use Margaret Thatcher's phrase in referring to her neoliberal policies for capitalism: he reckons there is no alternative (TINA). So the aim must be, just as Keynes argued in the 1930s: *"to make capitalism more sustainable. And that's exactly what I think we should do now".*

That's not Marx's vision of inequality and how to end it. I put it this way in another paper: *"Policies aimed at reducing inequality of income by taxation and regulation, or even by boosting workers' wages, will not achieve much impact while there is such a high level of inequality of wealth. And when that inequality of wealth stems from the concentration of the means of production and finance in the hands of a few."*

Roberts (2023) Visions of inequality

8

SMB - System of Material Balances

SNA vs SMB

There was a very important difference between the System of National Accounts
and the Sys
tem of Material Balances used in centrally-planned economies. The difference
was due to w
hat was considered to be the goal of economic activity. SMB excludes all activ-
ities that
result in non-material output: government administration, education and health
services.
Gross output in centrally-planned economies was thus systematically lower than
when expre
ssed in the SNA. The difference was estimated at between 10 and 15 percent,
and in some c
ases even 20 percent.

On the other hand, given that productivity growth is slower in education and
health than
in the production of material goods, underestimation of gross output in socialist
countri
es was combined with an overestimation of the rate of growth. We thus had,
judged from th
e standpoint of SNA, two opposite biases in centrally-planned economies: lower
level of o
utput, but its higher rate of growth.

The SMB claimed to have been based on Marx's view of productive labor, but
this is not

obvious because we do not know what exactly was seen by Marx to be the goal of economic a
ctivity in socialism. Marx believed that "productivity" (and thus the goal) is a historic
concept, defined from a systemic point of view. In a capitalist system, productive is th
e worker who produces surplus value for the capitalist. This is the origin of Marx's famo
us example of the opera singer who is a productive worker if he is hired by a capitalist,
but not when he works for himself. Productivity of labor is not, according to Marx, dedu
cted from labor being embodied in goods as opposed to services (as held by the SMB) but f
rom labor's contribution to what is the goal of economic activity in a given system. Unde
r capitalism, it is profit. So if the opera singer generates profit for the impresario wh
o hired him, he is a productive worker. Similarly, if the goal was to provide net income
for the elite as Physiocrats thought, and if the only source from which this can be extra
cted is agriculture, the correctly defined net product is indeed as they defined it.

What we call value added or useful output in one system is not necessary the same as what
we call useful output in the other. It depends on what the ruling ideology tells us is t
he reason why we engage in economic activity at all.

Milanovic (2023) Net economic output in history: Why we work? Ideology behind economic accounting

9

Material Value

9.1 Stuff Matters

Roberts

As G Carchedi and I have shown in our book, 21st century capitalism, the products of mental labour are just as material as things objectively outside our minds. Ideas can be turned into material use and commodified for capital. Indeed, as Marx argued, it is not that these key materials would cease to exist, they would still be there. It is when no human labour is applied to using them, then that would bring the world to an end.

All the talk about 'intangibles' now being the most important form of investment by capitalists, and that we can have 'capitalism without capital' is so much nonsense – or at least only has limited reality in the financialized world of the US and other G7 economies. The vast bulk of the world economy is still built on the production of things, 'stuff' that can be commodified from the labour of billions.

While materials consumption is certainly falling in post-industrial nations like the US and UK, on the other side of the world, in the countries from whence Americans and Britons import most of their goods, it is rising at a breakneck rate. 'Stuff matters' for capital and the governments that represent capital.

There is a tendency for the value incorporated in commodities to fall as the productivity of labour rises (ie the average labour time taken to produce commodities falls). But there is always the risk that prices of raw materials will rise and so disrupt the profitability of capital, leading to crises of production and hits to the living standards of billions. Marx saw this as a key factor in the tendency of the rate of profit to fall in capitalist production. *"The more capitalist production is developed, bringing with it the greater means for a sudden and interrupted increase in the portion of constant capital, the greater is the relative* *overproduction of fixed capital and the more frequent the underproduction of plant and raw materials, and the more marked the previously described rise in their price and the corresponding reaction"* (Marx Capital Vol. 3) The rate of profit is thus inversely proportional to the value of raw materials.

How can the world get to 'net zero' when it needs so many raw material resources? These are controlled by a few giant companies and that this is the major obstacle to meeting net zero.

Roberts (2023) Stuff Matters

Conway (2023) Material World (Pinguin)

10

Profit Rate

Michael Roberts

Movements in the profitability of capital as a key indicator of trends in an economy, even in one like China where state investment dominates.

A ground-breaking analysis by Tomas Rotta of Goldsmiths, London and Rishi Kumar from University of Massachusetts, called Was Marx Right? Rotta and Kumar analyse the profitability of capital in 43 countries from 2000-14 using the World Input-Output Database (WIOD) for defined productive and unproductive sectors.

They show the high ratio of productive capital stock in China compared to other countries and conversely the high ratio of unproductive capital in the US. And they compile a world profit rate, which declined over the period, mainly because the organic composition of capital rose faster than the rise in the rate of surplus value – as forecast by Marx's law. Profit rates declined at the aggregate global level, between countries and within countries. They found that rich countries have lower profit rates because of the rise in the capital stock tied up in unproductive activity.

According to Adam Smith, productive labour produces a profit and produces just tangible commodities. For Marx, the first part of this definition, the production of a profit, is correct, whereas the second is wrong. "Marx explicitly criticizes Smith for mixing up a definition of productive labour based on (surplus) value with a definition based on the physical attributes of the commodity." Servants are unproductive because they are not employed by capital, not because they do not produce external objects. And labour that supervises workers is unproductive. Unproductive sectors are those that do not produce new value but instead get value and surplus value from new value-creating sectors. The former includes finance, real estate and government. As you might expect, in mature advanced capitalist economies, the share of value going to unproductive sectors rises.

The post-Keynesians thesis of financial crises continues to hold sway among many. The ‘financialisation hypothesis’ is that the cause of modern capitalist crises is to be found in the ‘financialisation’ of what used to be industrial capitalism; and this has caused rising inequality and capitalist crises, not falling profitability or increased exploitation in investment and production.

Roberts (2023) IIPPE 2023 Part Two – China, profitability and financialisation

10.1 Tendency of Falling Profit Rate

From Jacobin debate 2023

Ackerman

Brenners Long Downturn

Robert Brenner’s theory of the post-1973 global economy — which depicts a long era of “stagnation” caused by chronic industrial overcapacity — is logically dubious and doesn’t fit the facts. But the theory’s biggest problem is its politics.

In Brenner’s account, for a half century the world economy has stagnated under the weight of a long crisis of profitability caused by chronic overcapacity in global manufacturing — a problem that first made itself felt with the postwar reentry of German and Japanese firms into already-saturated export markets, but which has only gotten worse with time.

For Brenner, chronic overcapacity is the symptom of a flaw in the economic mechanism of capitalism, arising from the unplanned anarchy of market production: firms in overcrowded industries, saddled with sunk costs in the form of fixed capital, lack the incentive to withdraw from unprofitable lines of business, resulting in intractable pileups of excess capacity that breed cutthroat competition, sinking profit rates, and, ultimately, stagnation.

Reformism

Bidenomics will result in “a massive exacerbation of the problems of overcapacity on a world scale,”. This exposes “neo-Kautskyite” socialists as lacking a “credible answer to the structural logic of capital.”

A few years before he debuted his thesis in a 1998 issue of the New Left Review, Brenner delivered a talk to fellow members of the socialist group Solidarity on the problem of how revolutionaries should relate to social democrats. (The talk was published under the title “The Problem of Reformism.”

Reformism is “our main political competitor,” and “the inescapable fact is that, if we want to attract people to a revolutionary-socialist banner and away from reformism, it will not generally be through outbidding reformists in terms of program. It will be through our theory — our understanding of the world.”

The social basis of reformism, Brenner explained, lay in the ranks of the trade union bureaucracies and social democratic party apparatuses. Since their organizational interests were unavoidably threatened by outbreaks of unabashed class struggle, reformists always opposed militant movements from below. They urged workers to confine their actions to voting for social democrats on election day and backing official trade union actions on the job. Reformists, in other words, want workers to place their fate in the hands of reformists. That was why they were always claiming that “state intervention can enable capitalism to achieve long-term stability and growth”; that the working class can “use” the state to pursue those objectives “in its own interests.”

Revolutionary socialists must always emphasize that “crises arise from capitalism’s inherently anarchic nature,” and that because of the system’s “unplanned” character, “governments cannot prevent crises.” Only then could they make the case to workers that reformism cannot and will not work, regardless of the alleged good intentions of the reformers. This, according to Brenner, was why, “for revolutionaries, so much is riding on their contention that extended periods of crisis are built into capitalism.”

When Eduard Bernstein, the protégé-turned-apostate of Marx and Engels, called on social democracy to embrace a reformist route to socialism, he put the issue of capitalist crisis at the heart of his case. With the scenario of total breakdown seeming increasingly remote, the revolutionary option was robbed of both its plausibility and its justification.

Bernstein’s salvo forced the defenders of Marxist orthodoxy, in its various shades, to sharpen their own theoretical arguments, and by the 1920s there were two identifiable poles of analysis in Marxist crisis theory: Rosa Luxemburg’s “underconsumptionist” view, which stressed the inadequacy of working-class purchasing power as the main source of the system’s crisis tendencies; and the German social democrat Rudolf Hilferding’s “disproportionality” theory, which traced the root of crises to the recurrence of accidental mismatches between the outputs of the different branches of industry — a hazard arising from the “blind,” unplanned nature of capitalist investment.

Planning and reformability - Keynes

Hilferding’s crisis theory, which attributed economic turbulence to “disproportions” in the pattern of capitalist investment, arising from the system’s “anarchic” and “unplanned” development - only planning could solve the problem of disproportions. Capitalists themselves had been forced to accept the logic of planning to stabilize increasingly chaotic markets. Cartels were ineffective in the final analysis: as long as they remained purely private, voluntary initiatives, they were unable to bring order to their industries because they could not effectively discipline their members. To stabilize the economy in a lasting way, comprehensive planning would have to be undertaken by the state. In the ’30s, “planning” was seen by many on the Left as the ruling class’s preferred path to economic stabilization, the route to recovery that posed the smallest threat to the status quo.

Left-wing socialists and communists denounced the allegedly fascist undertones of planism and espoused neo-Luxemburgist doctrines of underconsumption. For them, taming the anarchy of production seemed potentially achievable under capitalism. What seemed unthinkable was a drastic redistribution of wealth. A few years later the wheel would turn once again, as a combination of war and pressures from below forced the capitalist world to accept redistributionism on a scale that had once seemed inconceivable.

It was only a matter of time before underconsumptionism, once regarded as the radical doctrine of Red Rosa, came to be seen as the ruling-class palliative of John Maynard Keynes

1970s - profit squeeze

In the 1970s, a very different kind of crisis descended on the capitalist world. This time, there was no question of attributing the problem to a shortage of mass purchasing power. Profit-squeeze account of the crisis immediately gained adherents among Marxist and Marx-adjacent scholars in the English-speaking world.

The profit-squeeze theory painted the turmoil of the 1970s as a sort of mirror image of the 1930s Depression: just as the earlier calamity had been exacerbated by wages that were too low, sapping aggregate demand, now working-class militancy had pushed wages up too high, eroding the profit rate and bringing investment to a halt.

Initially this account held attractions across the Marxist spectrum. All sides could agree that profit rates had, in fact, declined as wages had surged. And for a fair number of radicals, the theory could be seen as vindication for the kind of militant "transitional" strategy long espoused by Trotskyists: demanding "reforms" calculated to be impossible for capitalism to deliver. The resulting wage demands had now produced a full-blown crisis of capitalism to which ruling-class Keynesians had no response.

Once it became clear that the 1970s crisis was not leading to revolution, the profit-squeeze account came to be seen in the opposite light: as giving ideological sanction to schemes of wage moderation — "incomes policies" — long advocated on anti-inflation grounds by Keynesian experts in social democratic parties.

Mattick - Grossmann

In 1969, a book called Marx and Keynes: The Limits of the Mixed Economy was published by Paul Mattick, a German council communist and self-taught adept of Marxian political economy who had settled in the United States in the 1920s to become a tireless — and, for decades, generally ignored — evangelist for the ideas of the largely forgotten Polish theoretician Henryk Grossmann, whose 1929 opus The Law of Accumulation and Breakdown of the Capitalist System was notable for being one of the few substantial works of pre-1970s Marxist writing to ground its theory of crisis firmly in Marx's famous "Law of the Tendency of the Profit Rate to Fall."

> The Keynesian solution to the economic problems that beset the capitalist world can be of only temporary avail, and that the conditions under which it can be effective are in the process of dissolution. For this reason the Marxian critique of political economy, far from having lost its pertinency, gains new relevance through its ability to comprehend and transcend both the 'old' and the 'new' economics.

New Left Marxists, in quest of a new reform-proof crisis theory, embraced Mattick as their lodestar and dusted off Marx's falling rate of profit (FROP) conjecture. Sweezy: a "fetishization of the falling tendency of the rate of profit".

In the eight decades between Friedrich Engels's death and the OPEC oil shocks, the FROP played almost no role in the various crisis theories of most leading Marxist authorities. Rosa Luxemburg was famously contemptuous of the idea. Karl Kautsky mentioned it as a factor tending to promote the centralization of capital, but not as an important cause of crisis. The relevant chapter of Sweezy's hugely influential 1942 textbook of Marxian economics, The Theory of Capitalist Development, noted that the law "has been the object of numerous criticisms from both followers and opponents" of Marx, and devoted a whole section to "A Critique of the Law." Ernest Mandel in his 1967 Introduction to Marxist Economic Theory included a dutiful five-page section on the law and then studiously ignored it for the rest of the book.

Marx

Marx was a scrupulous scholar, and every time he tried to work out the details of the concept in his notes and drafts of the 1850s and 1860s, he found himself — as the German Marxologist Michael Heinrich has shown — lost in a maze of algebra that could only prove that a falling profit rate was a possibility, not a necessary outcome of capitalist development.

The Law of the Tendency of the Rate of Profit to Fall entered the corpus of Marxian thought thanks to Engels's incorporation of some of these materials in the posthumously published third volume of Capital. But, as Sweezy noted in 1942, Marx's analysis in that section was "neither systematic nor exhaustive" and "like so much else in Volume III it was left in an unfinished state."

Perhaps the best indication of the importance that Marx attached to the law of the tendency of the rate of profit to fall is that he did not mention it in any of the works published in his lifetime, nor did he give it any further consideration in the twenty years of his life that followed the writing of the manuscript on which Volume Three of Capital is based.

Shaikh

Anwar Shaikh of the New School for Social Research, who emerged over the course of the 1970s and 1980s as the preeminent scholarly proponent of the

FROP and the broader approach to Marxism with which it is associated: "classical Marxism," in Shaikh's terminology; "fundamentalist Marxism" (or, more politely, "orthodox Marxism") in the mouths of its detractors. His 2016 summum opus, Capitalism: Competition, Conflict, Crisis does for Marxian political economy what Paul Samuelson's 1947 Foundations of Economic Analysis did for neoclassical economics: setting it on a firm theoretical foundation informed by the most rigorous modern methods.

By the time Robert Brenner presented his alternative falling-profit-rate theory, the falling-profit-rate theory — the classical FROP of the third volume of Capital — had acquired an odd status within Marxism. It had never been especially popular with the leading Marxist authorities, and was now in especially bad odor thanks in part to the strident dogmatism of some of its noisiest champions. And yet, it had quietly benefited from two decades of careful and intelligent reconstruction at the hands of Shaikh and a few other serious scholars, including Duncan Foley and the French researchers Gérard Duménil and Dominique Lévy.

The point of departure for the classical Marxian falling-profit-rate theory is the centrality of *laborsaving mechanization* to economic growth. Long-run growth requires rising labor productivity — more and more output per worker — and to get rising labor productivity the labor force must normally be equipped with more and more capital per worker. The key question is the balance between these two trends. Unless the *share* of output going to profits rises to compensate, the profit rate — profit per unit of capital — will fall.

Marx's concept of the "tendency of the profit rate to fall" depends on the idea that some force is at work within the competitive process making it at least highly likely that, over the long run, labor productivity will fail to keep up with capital intensity and the profit share of output will fail to rise sufficiently to compensate. But what could that force be?

Mikhail Tugan-Baranovsky

The capitalist's "choice of technique" must, if anything, have the effect of pushing the rate of profit constantly higher, not lower, as Marx had claimed.

Okishio

In 1961, the Japanese economist Nobuo Okishio published a landmark paper showing that Tugan's critique of the FROP was, at least, logically correct: at a given set of ruling market prices, and assuming no change in the real wage, any production method that a profit-maximizing capitalist would introduce must have the effect — once it's been generalized throughout the economy — of raising, rather than lowering, the general profit rate.

The advent of the mathematically forbidding Okishio Theorem was a key reason — alongside the unavailing arguments of the FROP's most dogmatic believers — for the falling-profit-rate theory's descent into disrepute.

Shaikh

Shaikh developed a theory of intra-industry competition that he named (in contradistinction to the mainstream categories of "perfect" and "imperfect" competition) "*real competition*"

The competitive process is "antagonistic by nature and turbulent in operation. It is the central regulating mechanism of capitalism and is as different from so-called perfect competition as war is from ballet." The martial metaphor is ever present: competition is "a war among firms."

As the set of feasible innovations is usually skewed in the direction of technologies that increase labor productivity, but at the cost of greater capital intensity — offensive competitive behavior will in fact lead to a long-run tendency for the aggregate profit rate to fall.

The key feature of competitive behavior in Shaikh's theory is its relentless tendency toward *aggressive price cutting and cost cutting.*

Okishio's model has innovating capitalists adopting more efficient production methods for the purpose of reaping higher current profits by charging the same price as competitors while producing at lower cost. But for Shaikh, that ignores the inherently strategic and antagonistic nature of capitalist competition. Rather than sitting back and enjoying an augmented flow of profits at the old price, Shaikh's innovating capitalist wields his newfound cost superiority as a bludgeon, pressing his advantage against rivals by mercilessly cutting the price below what his competitors can afford to charge.

Individual capitalists might prefer to use only those production methods that would increase the rate of profit. But they can't, because they're trapped in a destructive competitive game that forces them to adopt ever-more-capital-intensive methods while resorting to profit-destroying price reduction in the interests of competitive survival.

Hence the "beautiful dialectical denouement" noted by Duncan Foley: the very force the makes for capitalism's vitality — profit-driven technical innovation — is also the source of its decline.

All of this only holds if such behavior is indeed "the norm in the business world," as Shaikh claims. This is where Shaikh goes wrong, on grounds of both logic and evidence.

In Shaikh's theory, firms that adopt cost-cutting innovations do so with the warlike intention of harming their less-efficient competitors via price reduction. But he has trouble credibly explaining exactly how they ultimately benefit from doing this, even in the long run. The best-run companies go to almost any lengths to avoid price wars. For Shaikh's theory of real competition to be valid, real-world technical innovation would have to be driven by a competitive strategy that is rarely seen and almost never works. Rather than price, the main dimension of competitive struggle is what one important paper in this literature called “idiosyncratic demand” and what other papers call “product appeal”Demand differences (which could arise from quality or taste variation) as being the principal reason why some firms are successful in the marketplace and others are not. Product appeal accounts for 50 to 70 percent of the variance in firm size at a given moment in time; less than 25 percent is due to differences in price or cost. Virtually all firm growth can be attributed to firm appeal.

Shaikh once elegantly summarized Marx’s picture of capitalist competition as a two-front struggle: a struggle against labor to reduce costs, in which the predominant weapon is mechanization; and a struggle against competing firms for market share, in which the dominant weapon is price reduction.

Each of these processes tends to reduce the profit rate: the former by raising the level of capital intensity; the latter by reducing the profit share. However, the new microdata-based research confirms the centrality of what we might call a third front: the struggle against competition itself, in which the weapon of choice is product differentiation. Product differentiation decouples competitive success from cost and price, allowing capital to chart an alternative, profit-preserving path through the maze of competition.

Brenner

Brenner’s by-now-familiar account seems straightforward: thanks to a postwar onslaught of lower-cost producers entering global manufacturing industries, a problem of chronic excess capacity emerged that pushed down manufacturing prices and, therefore, overall profit rates. The resulting deficiency of profitability caused low investment and stagnant growth.

But as a long line of critics has pointed out — including Shaikh in his review of Brenner’s The Economics of Global Turbulence, published in a 2000 issue of Historical Materialism — a fall in prices in one sector of the economy (manufacturing in this case) shouldn’t have any particular effect on the overall profit rate, because one sector’s output prices are every other sector’s input prices.

Brenner was perfectly aware of this when he wrote The Economics of Global Turbulence. So he included a fallback argument: Perhaps, as a byproduct of the falling prices that resulted from excess competition, real wages increased, and this was what caused the fall in the profit rate?

This line of argument would seem to make Brenner’s a wage-squeeze theory. Brenner, however, is a vehement critic of wage-squeeze theories, insisting (correctly) that the wage share didn’t rise nearly enough in the 1960s and 1970s to account for the magnitude of the observed fall in the profit rate.

When it comes to the ultimate causes of “stagnation,” Brenner’s argument is a kind of Schrödinger’s cat of crisis theories: it’s a theory of excess competition when you’re looking at it and a wage-squeeze theory when you’re not. Like the cat, neither survives scrutiny.

Brenner’s theory lacks a logically credible mechanism linking low profitability to stagnation. On the one hand, he suggests that the cause of stagnation is underinvestment due to low profit rates. But at the same time, he claims low profit rates are brought on by overinvestment. One would think that years of underinvestment would eventually eliminate the excess capacity — or, alternatively, that never-ending overinvestment would be incompatible with stagnation. But in Brenner's theory there is somehow always an economy-wide investment drought alongside continual excess capacity.

(Ackermann here goes into empirics - see Villarreal's rebuttal)

His argument can be summarized in three steps: (1) crises are caused by the unplanned , anarchic nature of capitalism; (2) therefore, "governments cannot prevent crises"; (3) the inability of governments to prevent crises gives revolutionary politics a rationale.

But capitalist crises cannot be due to the mere absence of planning. It's the extended division of labor that explains the susceptibility of all modern economies — capitalist and centrally planned alike — to coordination failures, and thus to crises of different kinds.

The world growth rate in the "booming" Belle Époque years averaged 1.4 percent. In the so-called long downturn that began in 1973, that number was 2.5 percent.

Ackerman (2023) Robert Brenner's Unprofitable Theory of Global Stagnation

Villarreal

Many Marxist economists, such as Shaikh, Brenner, and Roberts, to name a few, use capital stock measures to estimate profitability. This is something I've called out as a theoretical error in the past, and I think Ackerman's critique here is a good highlight as to some of the problems with this approach, although I think there are other good reasons to reject the capital stock as the equivalent to what Marx called constant capital in his rate of profit equations.

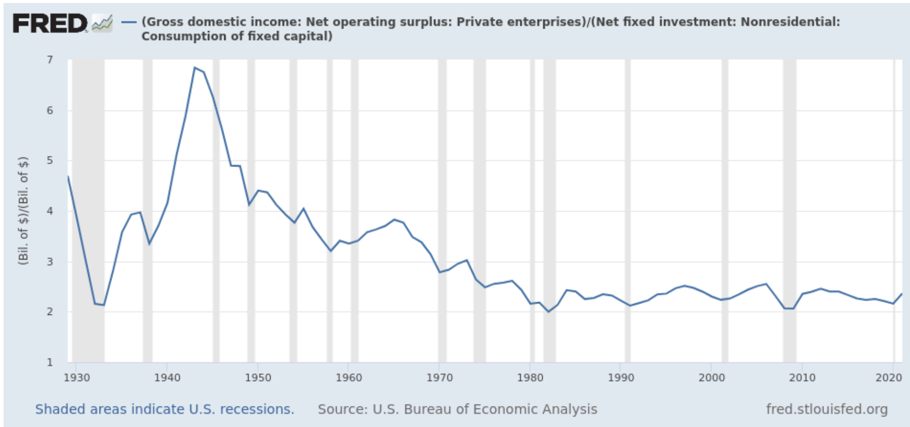
Depreciation, not the capital stock, **is constant capital** as Marx describes it, and it's constant capital that Marx invokes when he discusses the rate of profit. Marx proposed a tendency for the rate of profit to fall caused by rising levels of constant capital.

The income which is earmarked for depreciation is also available to capitalists, and they can consume it if they allow for net negative investment levels, however this undermines their structural class role as capitalists.

Depreciation represents the living labor which must go back into reproducing the means of production today when we understand it as a part of gross investment. When we compare surplus to wages and depreciation, we see the current rate of return for a given time.

If we wanted to see the rate of return of an *asset*, we'd have to look at the income it can generate over its whole lifetime.

For all these reasons I reject rate of profit measures based off the total capital *stock*. We need to see the rate of profit as a ratio of surplus to constant capital.



This is a fascinating chart, in that it indicates that the return on reproducing the capital stock is roughly the same as it was during the Great Depression and the 2008 financial crisis, and the only reason the total rate of profit isn't that low is due to a greater rate of exploitation during the neoliberal period.

When it comes to studying depreciation and the capital stock, what matters far more than estimating the absolute size of the capital stock is estimating how it's changing over time. If we know nothing else besides the level of investment, we can come up with estimates for depreciation and the capital stock by creating an estimated depreciation schedule filled each year by the investments made.

This is exactly what I did with US investment data, using a simulation I wrote in R. You can interact with this simulation here.

What Ackerman is contending is that the official recorded capital stock and depreciation measures aren't accurate and that depreciation is actually much higher than recorded, with many assets having shorter lifespans than US statisticians estimate.

There is a bigger recovery in the rate of profit in the shorter depreciation schedule line since the 80s, it actually has a stronger tendency for falling profit rates over all.

What Ackerman has done in creating his adjustment is draw a line between two different rate of profit estimates with different depreciation schedules, switching horses midstream. Ackerman's adjusted rate of profit statistics simply don't provide evidence for a lack of a tendency for the rate of profit to fall.

Henryk Grossman

The deeper political contention of Ackerman's essay is that crisis theory is a kind of dead end as it relates to politics, specifically the hope that capitalism is unreformable and therefore socialism inevitable. One name that gets mentioned in passing among the history of crisis theory is Henryk Grossman, however there are a number of important details the essay selectively leaves out.

Grossman was, after all, at one point a member of the Frankfurt school, which was hugely influential among the new left. He was kicked out for exaggerated accusations of Stalinism. However, the real divergence between Grossman and the rest of the Frankfurt school, especially what it would become after WW2, was on the question of crisis and the internal contradictions of capitalism2 . Contrary to Ackerman's analysis, which focuses on the minutia of various marginal sects, the new left was more dominated by critical theorists such as Marcuse who believed that the internal contradictions of capitalism had been solved. Far more popular than old school Marxism was various attempts to find alternative revolutionary subjects who could destroy capitalism through other kinds of contradictions. Anti-colonial movements, radical feminism, the civil rights movements. These movements succeeded in securing bourgeois rights more fully to everyone, whether people in the developing world, women, African Americans, but the questions originally raised by the communist movement, of the toiling for a capitalist ruling class, of the destruction of society at the hands of capital, these things remain unanswered.

When the profitability crisis of the 1970s occurred, the new left at large was caught totally unprepared. Without a horizon beyond capitalism, with only reforms available to them to manage capitalism, it became inevitable that the solution would be increasing exploitation and the destruction of working class power.

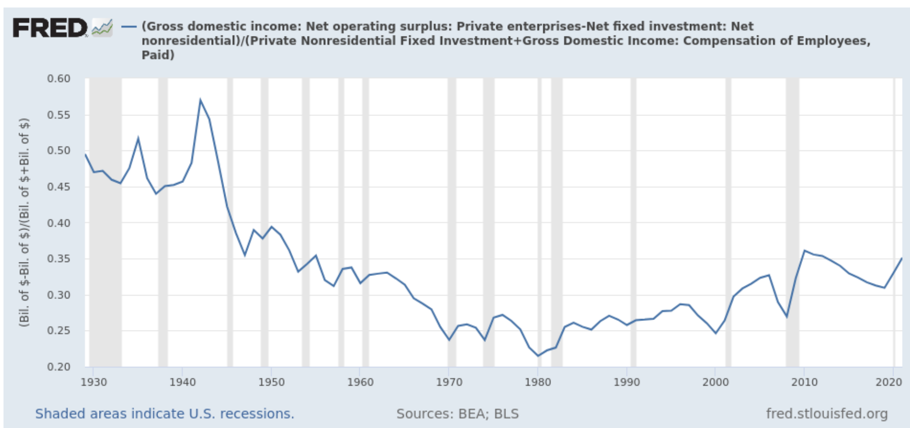
Ackerman seems to suggest that capitalism did reform its way out of the profitability crisis, meaning capitalism survived while maintaining growth and employment. But, it seems clear to me that the 1970s show exactly how unreformable capitalism is, and the limits of social democracy. It represents a hard limit that capitalism cannot move beyond, which requires either the expropriation of the capitalist class or the liquidation of the working class as a political entity.

To show exactly why this is the case, let's take a slightly different perspective on the rate of profit. Throughout all this discussion, for various Marxiological reasons, we've been focusing on the rate of profit as a relationship between surplus and costs. But, as I've mentioned previously, depreciation only exists as a really existing demand on resources to the extent it is a share of gross investment. Knowing how the capital stock is changing is useful for a host of reasons but let's focus on gross investment for a moment.

Gross investment in fixed capital is essentially determined by technical requirements of production and competition, so long as there is competitive pressure to do so, capitalists will adopt the most efficient techniques socially available. But this also means that, so long as there is competition, the amount of surplus they can actually consume personally is limited by what they have to invest.

Capitalists, much like the working class, must reproduce themselves by buying the goods which are required both biologically and socio-culturally. Unlike the working class, capitalists don't reproduce themselves by selling their labor power, but by advancing the money to buy the means of production and labor. This means that for the capitalist class as a whole, how much money they advance in a given production cycle relative to their surplus is the cost of acquiring that surplus, and the less surplus they get for a given amount of investment and wages, the less individuals can actually reproduce themselves as capitalists.

Therefore, one key metric we can look at is a profit rate that subtracts net investment from surplus, and looks at this consumable surplus as a ratio to gross investment and wages. This surplus which excludes net investment is essentially the surplus which is valorized as consumption goods by the capitalist class. Looking at this profitability metric tells us a very different story.



From this perspective, the late 70s represented an existential moment for the American capitalist class. In 1929 they could earn 50 cents on the dollar for their investments, fast forward 50 years in 1979 and they were making 21 cents on the dollar. This means a capitalist would have had to spend nearly 250% more, not even accounting for inflation, in order to get the same magnitude of value for themselves.

The ratio of capitalist consumption to gross investment has essentially stayed flat in the neoliberal period.

This is problematic for capitalism because it's this investment in machinery and new technologies which actually makes capitalism more efficient, dynamic, and improves living conditions, this creates the material infrastructure. As Ackerman notes, the profit to investment ratio has risen in favor of profit. This is the real stagnation, which takes hold specifically in late imperial and developed countries. Indeed, without a rising rate of exploitation, the rise in capitalist consumption would have come at the cost of net negative investment, and the destruction of this infrastructure, as happened in the great depression and world war 2.

Here is the necessary connection between the tendency for the rate of profit to fall and stagnation: so long as investment is rising as a share of non-labor income, all else being equal, the rate of profit will fall. That is, so long as the economy is moving according to the logic of capital: industrializing, mechanizing, rationalizing. At some point, capitalism reaches its limits, and it cannot industrialize any further without destroying the social reproduction of the capitalists, this is the fetters of production Marx describes, after which the capitalist class becomes smaller and smaller until it disappears. The point at which capitalism hit these limits was 1979, and to overcome them, it has sacrificed the logic of capital, as well as the working class, to preserve the capitalist class.

In previous blog posts I've discussed how my simulations reveal the equalization of depreciation and investment whenever the rate of exploitation and rate of capitalist consumption stop moving. You can play around with one of these simulations here, which also shows the dynamic conditions where changes in the rate of exploitation and rate of capitalist consumption cancel out changes to investment.

We happen to be living in a historical moment where a rising rate of exploitation and capitalist consumption somewhat cancel out any effect on investment. However, if we were to reverse this, and hit the limits that we did in the 70's, the only way to increase investment further would be the destruction of the capitalist class.

Today, the increasing consumption of the capitalist class stand in the way of further investment and improvement of material infrastructure, not to mention the living standards of the working class. Declining investment has led to an increasing convergence of investment and depreciation. It's this lack of investment which I believe is responsible for increasing stagnation of labor productivity, particularly in manufacturing.

Of course, one day, regardless of what we'll do, we'll hit the limits of what investing additional social resources to infrastructure will do for us, and the only material improvements will come from the application of new scientific discoveries. The question is, how do we get there? How do we get past the wall of capitalist social reproduction?

The only way, in my opinion, is through a mass understanding of crisis theory and national accounting. In the 70s, people may have grasped that the attack on the working class was the only way for capitalism to persist, but they didn't grasp its opposite, that the only way for the working class to keep its gains, as well as continue economic rationalization, was to destroy capitalism. Grossman's politics were essentially correct and, as his recent biography goes to show, not reducible to a kind of empty economic determinism about the inevitability of socialism. They were a strategy for taking advantage of a crisis, to allow people to understand what they meant. While every political crisis might have specific political sparks, such as the start or end of a war, what has caused structural shifts in the global economy has always been crises.

The covid crisis has caused such a shift, and we're starting to see evidence that states are forcing higher levels of investment. If this continues, we may find ourselves back in a 1970s style profitability crisis once more. It would be better if we could be prepared to see the limits of capitalist reforms in such a situation.

Villareal (2023) The Tendency for the Rate of Profit to Fall, Crisis and Reformism

Benanav

More and more economists agree with Robert Brenner that mature capitalist economies have begun to stagnate. Seth Ackerman has written a detailed rebuttal of one particular theory of the present: economic historian Robert Brenner's theory of a persistent slowdown — a "long downturn" — in the advanced capitalist economies.

In the course of a piece that weaves its way through more than a century of left-wing debate, Ackerman tries to connect Brenner's long-downturn theory to a much older Marxist tradition, which argues that there is a long-run tendency in capitalist societies for the rate of profit to fall. Ackerman argues that Brenner and his acolytes are the last holdouts, the last true believers in a theory that was disproven long ago.

I argue that Ackerman has misread Brenner as a final crisis theorist. In truth, Brenner is a theorist of long waves in capitalist development who stumbled onto a theory of secular stagnation.

Secular stagnation presents itself, in Brenner's work, as a difficult puzzle, precisely because Brenner has no truck with any Grossmanite theory of the long-run tendency of the profit rate to fall.

I resolve the puzzle that Brenner's work presents by connecting it to a long-unfolding process of deindustrialization and a shift of labor into services.

Most Marxists who talk about profit rates do not believe in a long-run tendency of the rate of profit to fall. Instead, they are long-wave theorists. They chart transitions between long periods of rapid economic growth and periods of slower growth and economic crisis. Ernest Mandel, Immanuel Wallerstein, Giovanni Arrighi, Robert Brenner, Anwar Shaikh, Gérard Duménil, and Dominique Lévy are all long-wave theorists. They can all count themselves as followers of Nikolai Kondratiev, who first theorized the existence of fifty year supercycles of economic growth and decline, on which shorter business cycles are superimposed. Brenner has distinguished himself by arguing for a 1973–2023 "long downturn.

Joseph Schumpeter did much to develop Kondratiev's long-wave theory. For that reason, I think of Marxists in this camp as neo-Schumpeterians. Schumpeter's essential argument was that what drives long waves are periodic technological revolutions. Long waves are aggravated and intensified by the credit system, which overlays a boom-and-bust dynamic on top of what would otherwise be. The point of the long-wave theories is to say that capitalism's historical tendency to achieve 1.5 to 2 percent average growth per year does not take the form of a calm expansion at a steady rate. Rather, it is a tendency that emerges only as the average of turbulent boom-and-bust cycles and at times brutal competitive conflict.

Given Ackerman's interest in non-price-based forms of competition, it is important to note that Schumpeter integrated a theory of oligopolistic competition into his long-wave theory, in a way that also influenced Brenner. Schumpeter famously argued that the appearance of oligopoly — that is, of a few large firms capturing most of the market in an industry — is not a sign of the maturation or exhaustion of capitalism. Nor can it be counted among the causes of an inbuilt tendency of the system to slow down.

On the contrary, big business is the organizational form most adequate to the immense scale of investment needed for modern-day production. Large-scale firms emerged victorious during the Gilded Age boom. They are responsible for massive improvements in productivity. Of course, they prefer to battle it out with one another on the basis of quality, rather than price. They also create many barriers to entry, by increasing the costs to customers of switching between brands.

Oligopolistic competition reigns, Schumpeter argues, because it is the only way for large-scale firms to secure the space for the major investments in plant and equipment through which they realize massive efficiency gains. The point is not only that these oligopolies do not block progress. Their research and development arms, which they are able to pour money into precisely because of their oligopolistic pricing strategies, become the major sources of productivity growth for the wider economy.

Thus, oligopolies do innovate, and they pass on gains of innovation to consumers. They do so because they know that the next challenger to their reign is always around the corner. They are always at risk of being dethroned and are periodically dethroned in every industry. During periods in which industrial leadership is contested, polite, non-priced-based competition often gives way to brutal, price-based conflict.

We now have all the tools we need to understand Brenner's theory of the long downturn, as published in The Economics of Global Turbulence, which first appeared as a special, book-length issue of the New Left Review in 1998. Brenner's book offered a simple modification of Schumpeterian long-wave theory. He said that capitalist creative destruction plays out in international markets. American large-scale firms in the long boom of the 1950s and '60s. They weren't price takers. Instead, they engaged in "cost-plus" or markup pricing strategies. Their polite, non-price-based competition was, however, interrupted in the mid-1960s by the incursion of low-cost Japanese and German manufactured goods into the US domestic market. The German and Japanese states had fostered the growth of their own large-scale firms behind tariff barriers and protected by currency undervaluation. These firms launched themselves first into the world market, and then invaded the US market, using a low-price strategy to rapidly grab market shares.

Brenner deploys profit-rate accounting to show that the decline in profitability in the 1970s was the result of a fall in capital productivity, that is, the income generated for each unit of capital invested, rather than a fall in the capital share, that is, the share of this income capital keeps for itself.

In other words, Brenner argues, it wasn't workers' success in raising wages, but capital's failure to restore the conditions of non-price-based competition in manufacturing that led to the fall in profit rates.

Brenner argues that US firms dug in their heels and refused to cede their ground, as did their competitors. The result was a long war for price leadership, accompanied by a temporary but ultimately long-lasting fall in the rate of profit. Brenner has argued that this battle continued for longer than it should have because, as Shaikh has argued in his own theory of *real competition*, major spoils will go to the winners. Most of Brenner's subsequent work is about how what started as a trade war became a currency war, and how state policies aimed at preventing their firms from suffering defeat issued in financial bubbles, then crises, and then long bouts of stagnation.

Central to Brenner's account, and to the general perspective of the long-wave Marxists, is that capitalists responded to the vanishing of investment opportunities in a second way, too: by making war on their domestic working classes. The result was a well-documented tendency of the capital share to rise, which has partially offset the decline in capital productivity, but at the cost of fifty years of real wage stagnation.

Brenner's theory thus has no relation to any Marxist theory of the long-term tendency of the rate of profit to fall. It is also unrelated to any Keynesian theory of "secular stagnation." His account is a Schumpeterian long-wave theory, modified to account for the ways that international competition among oligopolistic firms has been key to explaining shifts in economic growth rates over the past fifty or so years. The extended nature of this downturn remains a puzzle.

Over time, however, Brenner has abandoned this theory, and has instead begun to argue that capitalism had transformed fundamentally. Brenner believes that capitalists have made peace with low growth rates. They are no longer interested in restoring dynamism to the wider economy. Instead, they are focused on maintaining a high capital share of income.

Industry is the sector at the center of long-wave theories because it has long been the main source of capitalist dynamism.

Once you see that Brenner's story about rising international industrial competition is unfolding in the context of global deindustrialization, the puzzle of the long downturn becomes much easier to understand. Even though GDP is still growing, that income growth generates less new demand for products in the industrial sector, limiting the growth of industrial markets.

This same point helps us solve the riddle of Shaikh's critique. Shaikh points out that one sector's output is another sector's inputs, so the nonmanufacturing sector should have benefited from the decline in prices in manufacturing. That no doubt happened.

But the nonmanufacturing sector was not able to do much with its good fortune, because possibilities for efficiency gains outside of manufacturing — that is, in the service sector — remained low. Profit rates in nonmanufacturing are low not due to excess capacity, but rather due to the sector's low productivity growth potential. In services, there are just fewer options for continually increasing efficiency.

The service sector isn't just any collection of activities: it is a residual sector, where we find those activities that have resisted industrialization or computerization for a variety of material or social reasons.

As services come to represent larger shares of the total output of the economy, that has lowered the economic growth potential of the economy. Meanwhile, as manufacturing comes to represent a smaller share of the total economy, it higher productivity-growth potential translates into fewer economy-wide effects.

These points about the causes of the ongoing economic slowdown requires no further references to profit-rate analysis. Although the point is a little technical, it is not difficult to understand. Brenner documents a long-term fall in capital productivity, that is, the income produced for every additional unit of capital invested.

This decline could occur for at least two reasons. One would be worsening overcapacity: firms are piling into an industry, in the context of a brutal competition for market shares, increasing output beyond what the market can bear.

The other would be reduced opportunities for technological change: every unit of capital added to this industry generates less income than before, because there are fewer opportunities for raising productivity levels.

Continued low capital productivity reflected, not economy-wide overcapacity, but rather the shift to services.

My revision to the Brenner thesis aligns me much more closely with certain strands of the "secular stagnation" literature, which arrives at a similar pessimistic conclusion about the long-term growth prospects of the economy. That literature has nothing to do with Grossmanite theories of the tendency of the rate of profit to fall, either. But secular stagnation theories are theories of a long-run decline in rates of profit.

Keynes

Keynes predicted that if society got capital accumulation going again it "ought to be able to bring down the marginal efficiency of capital to zero within a single generation." Keynes thus took a fall in the rate of profit to zero not only as a tendency of his time, but as a goal.

Keynes's reasons for thinking that the rate of profit was falling and would fall further were like Smith's: he believed that the essential phase of capital accumulation — the equipping of society with structures, machines, and other equipment — was coming to an end, and that in the future, growth would slow to the true rate of technical change.

Keynes inspired the American economist Alvin Hansen to theorize what Hansen called "secular stagnation" as a tendency of the twentieth-century economy. This, too, is a theory of the falling rate of profit. Schumpeter said derisively: "There is surely no such gulf between Marx and Keynes as there was between Marx and Marshall. . . . Both the Marxist doctrine and its non-Marxist counterpart are well expressed by the self-explanatory phrase that we shall use: the theory of vanishing investment opportunity."

Even Schumpeter suggested that at some point, capitalist evolution might "permanently slacken down, whether from reasons inherent in or external to its economic mechanism," making socialism more likely to succeed it.

End of Urbanization

Robert Gordon, like Smith and Keynes, believes that we have done the main work of equipping rich Western societies with plant and equipment, as signaled by the end of urbanization, that is, the end of the build-out of residential construction.

Process Innovations

The big problem is a *falling potential for process innovations*, not product innovations.

Vanishing Investment Opportunities

Larry Summers, who restarted the debate on secular stagnation, initially placed more emphasis on an excess of private savings rather than a deficit of private investment. But his analysis comes to the same point: savings are excessive because of a vanishing of investment opportunities.

By now "secular stagnation" has become a mainstream view, having no necessary association with Marxist or heterodox economic thinkers, like Robert Brenner.

Oliver Blanchard thinks that, alongside a too-high savings rate, the vanishing of investment opportunities means that secular stagnation is likely to return in the near future. As he recently said:

> I believe that global secular stagnation was and is driven by deep structural factors that neither COVID nor inflation have done anything to reverse. Once central banks have won the fight against infla-

> tion, which they will, we shall most likely return to a macroeconomic environment not dramatically different, at least in this respect, from the one before COVID.

Marxist long-wave theorists do offer a political account of changes in class relations over the course of long waves, which is relevant for thinking through the political consequences of secular stagnation today.

The basic Marxist theory goes like this. During long systemic upswings, capitalists' rates of profit are higher, and so are economic growth rates. Capitalists are more willing to engage in polite competition with one another. Capitalists are also more willing to share the gains of growth with the working class and with society.

These positive outcomes are not necessarily guaranteed in upswing eras, but they are possible if workers and other groups organize and fight for change. In these eras, the reformist wings of these groups will tend to win out because there is a lot to gain from compromising with the capitalists in periods of high profitability.

By contrast, during systemic downswings, capitalists' rates of profit fall. Capitalists are more likely to undercut one another through nasty price competition. They are also less willing to share the more meager gains of rising productivity with workers or the broader society, so wages stagnate, and so do tax takes.

Ackerman's reconstruction of Brenner's account makes no mention of this essential aspect of the argument: that periods of low profitability are associated with rising class conflict. Capitalists are trying to make up for falling capital productivity by raising the capital share, resulting in wage stagnation. In downswing periods, advocates of compromise with capitalists mostly just organize the defeat of the working class. The same is often said of social democratic and labor parties: they stopped fighting for people and instead organized their defeat.

Schumpeter drew the exact same political insights from his own long-wave theory, but had the opposite worries. Schumpeter feared that, without the protection of a war-making aristocracy, the capitalists would prove too weak-willed to resist workers' economic and political advance during downswings. He saw the advent of the New Deal as a sign that capitalists didn't know "how to say boo to a goose," and as a result, were allowing the social and political infrastructure of the capitalist system to break down, paving the way for socialism.

We need to radically transform production, both to meet people's needs and to green production. The issue is that, as Nicolas Villarreal has also argued, to the extent secular stagnation persists, getting there will require significant reductions in elite incomes, which will call forth gigantic resistance.

Marxist theories of the "unfettering" of the productive forces are largely wrong, so that the vanishing of investment opportunities would apply equally to a socialist society as a capitalist one.

Instead of depositing so many of society's resources in the hands of the rich, and in the accounts of oligopolistic firms, a socialist society would place these resources in the pockets of everyday working people, raising their consumption levels. Workers could take these gains, not just as higher consumption, but also added free time.

Before transitioning to low-savings, low-investment, high-consumption economy, we would want to engage in one last effort to reshape the economy. In this effort, public investment would have to displace private investment as the main engine of growth. Investment throughout the economy would need to place with much greater democratic involvement than Keynesians — in their overwhelmingly technocratic fantasies of economic transformation — imagine.

The economic growth rate would necessarily rise for one or two generations. But in a humane economy, we would not measure our success in the abstract terms of growth accounting.

The fall in growth rates matters because we live in a class society. Economic elites have not simply accepted lower rates of return, that is, of profits, since the 1970s. Instead, they have fought for, and won, significant increases in their share of income growth at the expense of the wider society.

Brenner's analysis of the long downturn — especially in the modified form I have laid out above — helps us understand what the battles are in which we are already engaged, why they matter, and what the hope is for the future. Ackerman's analysis does not.

Benanav (2023) We're All Stagnationists Now

Tankus

Keynesianism

In defending Brenner, Benanav makes a point of distinguishing his analysis from the law of the tendency of the rate of profit to fall. Instead, he tells us that Brenner, like quite a heterogeneous (and debatable) list of Marxist scholars, is a "long-wave theorist," which means "they can all count themselves as followers of Nikolai Kondratiev."

Benanav's piece does not articulate anything that particularly distinguishes his (or Brenner's) analysis from orthodox economics in terms of economic analysis. His discussion of the growth of services employment and output relative to manufacturing, patterns of real GDP growth, and falls in "capital productivity" fits right into the discussions mainstream economists have with each other.

Distinction is made by rhetorical invocation of an enemy: "Keynesianism." The Keynesian specter has haunted Marxism for almost a century now, and punching at such ghosts is a tried-and-true method for showing your radical bona fides.

Let's examine Benanav's very interesting use of the phrase "Keynesians" more closely. While laying out his alternative vision of the future, he makes a point of taking a shot at "Keynesians" twice:

> Indeed, investment throughout the economy would need to place with much greater democratic involvement than Keynesians — in their overwhelmingly technocratic fantasies of economic transformation — imagine . . .
>
> No matter what the Keynesians say, and no matter how good their economic analyses, there is no neat trick for getting elites to relinquish their economic and political power.

This type of jab has typified a certain type of Marxist writing for at least seventy years.

In the 1950s and into the '60s, these breezy dismissive comments about Keynesianism made some sense. There was something concrete that was identifiable as "Keynesianism" that had great influence among both economists and the wider society. The fact that its ideas had — at best — a limited relationship to Keynes's own writing was mainly a matter of historical curiosity. Meanwhile, in the midst of McCarthyism, a sharp line of repression divided Marxists and Communists from their former popular front brethren — and the rest of the economics profession.

However, even as the '60s progressed, the radical rhetoric regarding "Keynesianism" already began to become stale. To understand why, we have to open the black box of "Keynesianism" and be more precise and careful by what we mean. Economists — including the most influential ones — were never slavish devotees to even the caricature of Keynes taught in the textbooks. The "Keynesian Revolution" did not conquer the United States; at best it conquered the Boston area (for a limited time). It's no coincidence, in fact, that dynastic scion John F. Kennedy was the high-water mark for anything approaching "Keynesianism" in government.

Even those in the "Cambridge Circus" who were not Marxists began engaging Marx and Marxism more seriously. Most infamously, the legendary Joan Robinson became inspired by the arrival at Cambridge of an eccentric Polish Marxist economist who seemed to anticipate the core features of Keynes's framework. Michal Kalecki, who would eventually return to Soviet Poland to attempt to influence economic planning there, provided a key intersection between Capital and the General Theory of Employment, Interest and Money. Stimulated by Kalecki, Robinson read Marx and published a pamphlet in 1942 on Marx that infuriated some Marxists but scandalized the entire bourgeois economics profession. Robinson would go on to claim that Kalecki's theory of "effective demand" was superior. She would come up, in time, with yet more flamboyant heresies.

One of those alternative economic frameworks percolating was what has become known as "post-Keynesianism." Seeking to further develop and integrate the core insights of Keynes, Kalecki, Robinson, and others while distinguishing their analysis from "bastardized" Keynesianism, a few economists got together to organize a session at the main 1972 economic conference happening in Toronto. That session, sponsored by URPE and entitled "The Possibility of an Alternative to the Neo-Classical Paradigm: A Dialogue Between Marxists, Keynesians, and Institutionalists," had largely Marxist economists for discussants.

These post-Keynesians trying to dialogue with Marxists did not find such dialogues easy. URPE continued to support post-Keynesians organizationally and with open dialogue. The Journal of Post Keynesian Economics would likely not have been started without its aid. Today, many URPE members are post-Keynesians, and URPE's journal — the Review of Radical Political Economics — has published many post-Keynesian articles (even as the critiques and debates continue). Many radical economists consider themselves both Marxist and post-Keynesian, as well as various other iterations and combinations of views.

The point I am trying to make is not that anti-Keynesian forms of Marxism have no validity. Nor does one necessarily have to take Baran and Sweezy, or any of what came to be known as post-Keynesianism, seriously. Baran and Sweezy have, not infrequently, been themselves criticized by Marxists for being "Keynesians". Proximity between post-Keynesians, neo-Marxists, orthodox Marxists, nondenominational radical economists, and others didn't and doesn't prevent stinging attacks or squabbles between them. However, it's worth returning to Benanav's initial theme: Brenner's lack of commitment to orthodox Marxism.

Indeed, it's hard to see how Brenner's views particularly distinguish him from Kalecki's or Robinson's. Both of them wrote about the role of "profit rates" in investment decisions. The key distinction seems to be much greater vagueness about the role of demand or government deficit spending.

The Left is long overdue for a higher-quality conversation about "Keynesianism." This absence has ill-served readers coming from outside the debates among economists (and political economists in adjacent fields) by denying them the full breadth of left-wing economic perspectives.

The urgency of climate change has generated a renewed interest in big economic programs among Marxists — even if they happen under a "compromised" capitalist economic system. The continued dialogue in outlets such as the Dig over the meaning and significance of the Inflation Reduction Act reflect this complexity. Who exactly is engaging in "technocratic fantasies" on the Left or rejecting the importance of "democratization of investment decisions"? Who exactly are people targeting anymore when they dismiss "Keynesianism"?

Tankus (2023) Keynes and the Marxists

11

Property Rights

Fix

For Marx, interest is about inter-capitalist competition. Interest payments, Marx argued, transfer to the 'money-capitalist' some of the profits received by the 'industrial capitalist'.

This approach implies that we can cleanly divide between 'industrial' and 'money' capitalists. And by extension, Marx's view implies that profit is earned from 'productive' activities, whereas interest stems from the unproductive ownership of money.

Faced with this Marxist division, capital-as-power theorists Jonathan Nitzan and Shimshon Bichler think that it misses the point. Looking at capital, they argue that *all of it is unproductive.* That's because *capital is nothing but the quantification of property rights. And property rights, in turn, are inherently negative; they are an institutional act of exclusion.* So in that sense, profit and interest both stem from enforced exclusion — what Nitzan and Bichler call strategic sabotage.

Fix (2023) How Interest Rates Redistribute Income

12

Trade

Reinert

In a speech to Belgian workers in 1848, Karl Marx was pleased with Ricardo's free trade theory because premature trade liberalization would create poverty and hastening revolution. Warlords in the world periphery may appreciate free trade for the same reason Marx did: premature trade liberalization locks a nation in a pre-capitalist and backward economic structure that prevents democracy. A nation without a large division of labour and a web of increasing returns' industries is unlikely to be able to support a democratic system.

Reinert (2011) The terrible simplifiers (pdf)

12.1 Unequal Exchange (UE)

Carchedi and Roberts

Unequal Exchange and Exchange Rates

Exchange rate movements are another source of surplus value appropriation specific to capitalism. In conventional economics there are basically three theories of exchange rates. The balance of payments theory states that if a country's balance of payments has a surplus, the greater demand for its cur- rency causes its appreciation, and vice versa for a deficit. Exchange rates tend towards the point at which the balance of payments is in equilibrium. The pur- chasing power parity theory holds that exchange rates tend towards the level at which the purchasing power between two countries is equalised. This is the quantities of the countries' currencies that can buy the same basket of goods in both countries. At that point, exchange rates have reached their equilibrium level. The monetary theory postulates that the exchange rates are determined through the balancing of the total demand and supply of the national currency in each country. These and other similar theories have been subjected to criticism on a number of grounds. They will not be reviewed here because, whatever their differences, they share a common matrix, the fundamental, empirically unproven, internally inconsistent and ideologically-laden postulate that the capitalist economy tends towards equilibrium, however defined. Yet it is for all to see, except for equilibrium economics, that the capitalist economy is a non-equilibrium system. It tends not to equilibrium, but to crises. Besides conventional economics' theories of UE, there are also Marxist stud- ies. In the 1970s, a number of authors36 produced important studies, which, however, have been superseded on account of their being based on the assump- tion of capital immobility. More recently, Shaikh and Antonopoulos have sub- mitted that 'the sustainable real exchange rate is that which corresponds to the relative competitive position of a nation, as measured by its relative real unit labor costs'. The advantage of this approach is that it relates competitivity to the exchange rates (henceforth, XR). Broadly speaking, the authors reckon that the DC improve their profitability (competitive position) by lowering their labour costs while the IC do that by raising their productivity. This is correct. But the DC lower their wage levels *because* of their lower productivity. So the exchange rates should 'correspond' to productivity differentials rather than to wage differentials.

Carchedi and Roberts (2021) The Economics of Modern Imperialism (pdf) (pdf)

13

Transformation problem

Feygin

Legal Marxists like Petr Struve and, most importantly for economic theory, Mikhail Tugan-Baranowsky were trained both in Marxism and Austrian Marginalism. Tugan-Baranowsky's intellectual project was to figure out how to make the labor theory of value work with the critique of it presented by Bohm-Bawerk and his concept of "roundaboutness" – or how capital goods produce other capital goods and also consumer goods. In Bohm-Bawerk's critique of Marx, roundaboutness means that it is the particular time in production, not labor exploitation is where capitalists derive their value added. Tugan-Baranowski and other Russian legal Marxists (I should note here that Russian is a difficult identity Tugan-Baranowski was a Ukrainian and later was the finance minister of the social-democratic Ukrainian 1917 Central Rada which, shortly after his death, became the government of the Ukrainian People's Republic) noted that you could make the labor theory of value work together with roundaboutness if you reject, as Marx began to in Volume 3 of Kapital, that the rate of profit must fall. Instead, capitalists can change the technical composition of capital to create more or less roundaboutness from production to consumer goods output and maintain profits.

The falling rate of profit thus became a special condition to be created by very rapid innovation and growth, not a hard and fast rule. Capitalism could just go on and be relatively stagnant and stable. This inspired several further developments in Russian economic thought. First, it was behind Kondratieff's technological cycles, which showed how capitalist economies could adapt to productivity shocks created by new technologies without collapsing due to class conflict. It also was the impetus behind Ladislaus Bortkiewicz's (another Russian-born economist but not of Russian but Polish origin) *solution to Marx's transformation problem.* Bortkiewicz showed that you could get an accurate price and profit rates using a labor theory of value if you modified Marx in two ways. First, you solved the problem simultaneously rather than sequentially as a series of simultaneous equations. Second, you assumed a three-sector model wherein you have sectors which produce both machine tools, wage goods, and luxury goods.

Feygin (2023) Economists We'll Be Talking About: Wassily Leontief

14

Capitalism's Wars

Roberts

Ever since the end of the second world war, there has been some sort of war, between regional powers, or as proxy wars backed by imperialist powers. The monetary costs of war are huge, as the Watson Brown Institute shows, while the human costs of war are incalculable – not just the deaths and injuries, but also the destruction of homes, livelihoods, deprivation and disease and the horrors of migration. Wars are a scourge on humanity.

But are they beneficial to the capitalist economy? That's another question. Wars are often seen necessary by governments and politicians to preserve a capitalist power's control over resources, land, profit etc. And they are always portrayed by war-mongering governments to their peoples as necessary to 'save the nation' or 'defend our way of life'. But are wars and military spending that goes with war a necessary cost to deducted from the profits of capital or alternatively an additional boost to making money? That question has been discussed and analysed over the last 150 years by capitalist strategists and Marxist theorists from Engels to Lenin and Luxemburg and on into the 20th century.

However, the costs of military spending have been in decline for most capitalist governments since the end of so-called 'cold war' with the Soviet Union. So interest in whether arms expenditure and wars are beneficial or detrimental to capitalism has also fallen away. A Marxist perspective on the economic of military spending has been badly neglected – until now.

Adem Yavuz Elveren, Associate Professor at Fitchburg State University in the US, has now rectified that with his new book, simply entitled, The Economics of Military Spending. As an earlier pioneer in such analysis, Ron Smith of Birkbeck University says in his foreword, Elveren "examines the interaction of military expenditures and the rate of profit and their contribution to capitalist crises. It not only redirects attention to an increasingly relevant old literature but also makes an original theoretical and empirical contribution to the analysis." The book combines theoretical analysis with detailed econometric investigations for 30 countries over last 60 years.

The basic assertion of Marx that "the driving force of capitalism is profit." And so the book "stands at the junction of defence economics and Marxist economics, examining the effect of military expenditure (milex) on the rate of profit, an indicator of the health of a capitalist economy."

Elveren takes the reader through a brief history of military expenditure and its apparent economic effects. Then he considers various models of economic growth that connect military spending. He deals with the theory of 'military Keynesianism', popularly presented as an explanation for the fast growth and full employment in the post-war period, the so-called golden age of 20th century capitalism. And then he gets into the meat of argument by analysing the various versions of the theory of capitalist crises presented under the Marxist banner.

He expertly handles Luxemburg's view on imperialism and military spending, as well as the Baran-Sweezy thesis of military spending compensating for a stagnating monopoly capitalism – and the so-called 'permanent arms' economy idea promoted by Michael Kidron in the post-war period, that capitalism can avoid crises by milex.

The theoretical question at debate in Marxist political economy is whether the production of weapons is productive of value? The answer is that it must be for the arms producers. The arms contractors deliver goods (weapons) which are paid for by the government by appropriating value (either present or future). These goods are new use values which have been made under capitalist conditions of production. The labour producing them, therefore, is productive of value and surplus value.

But at the level of the whole economy, arms production is unproductive of future value, in the same way that 'luxury goods' for just capitalist consumption are. Arms production and luxury goods do not re-enter the next production process either as means of production or as means of subsistence for the working class. While being productive of surplus value for the arms capitalists, the production of weapons is not reproductive and thus threatens the reproduction of capital. Arms production restricts the volume of use values that can be employed for reproductive purposes. So if the increase in the overall production of surplus value in an economy slows and the profitability of productive capital begins to fall, then reducing available surplus value for future investment through milex can damage the health of the capitalist accumulation process.

The outcome depends on the effect on the profitability of capital. The military sector generally has a higher organic composition of capital than the average in an economy as it incorporates leading edge technologies. So the sector would tend to push down the average rate of profit. On the other hand, if taxes collected by the state to pay for arms manufacture are high, then wealth that might otherwise go to labour is distributed to capital and thus can add to available surplus value. Which way does it go?

To help answer that question, Elveren offers the reader a circuit of capital model to include the military sector based on the model developed by Duncan Foley. But the question can only be answered empirically. And this is what Elveren does in the latter part of his book. He carries out a detailed empirical study to measure the impact of milex against the movement in the rate of profit on capital for most capitalist economies. This is a far more extensive study than any before. Elveren uses the Extended Penn World Tables and the Penn World Tables for his cross-country data.

Overall (from 1963-2008), milex had a positive effect on profit rates in capitalist countries, but that it had a negative effect in the shorter time period – the so-called neo-liberal period from 1980 onwards. It seems that milex helped to sustain profitability during the great profitability crisis that started in the mid-1960s to the early 1980s, but after that, milex acted against overall profitability in a period when profit rates were rising.

It seems that the productive sectors of capitalist economies had insufficient surplus value to invest at the previous pace as capitalists switched to financial speculation where profitability was higher. Military spending then became just another negative. Milex may have had a mildly positive effect on profit rates in arms exporting countries but not for arms importing ones. In the latter, milex was a deduction from available profits for productive investment.

Over the period 1963-08, Elveren finds that milex, as a stimulant to capital accumulation (with its high-level technology) was mildly positive in the US, but in other major countries it has a negative effect, particularly in those countries that imported their arms. In all countries milex was damaging for employment as a whole, as the arms sector used less labour on average. Thus milex may sometimes help the rate of profit for capital but the flipside is that milex will increase the 'reserve army of labour'. And as Elveren adds "the effect of milex may change at different levels of the rate of profit".

Elveren's empirical work appears to back up the Marxist view of the role of military spending in a capitalist economy. It can act to lower the rate of profit on capital and thus on economic growth as it did in the neo-liberal period, when investment and economic growth slowed. But it can also help bolster the rate of profit through state's redistribution of value from labour to capital, when labour is forced to pay more in taxation, or the state borrows more, in order to boost investment and production in the military sector.

In the greater scheme of things, milex is not decisive for the health of the capitalist economy. At its height, its share in GDP reached an average of 13%. But that was due to the Korean war. Even during the cold war period, that share fell by half to around 6% of GDP. With the collapse of the Soviet Union, military spending in the major imperialist powers halved again to 3%. Milex is not going to decide the future of capital, one way or the other.

Roberts (2019) Milex and the rate of profit

15

Marxists

15.1 Poulantzas

Tooze

Marxism and history

One concern of Marxists reading Louis Althusser in the 1960s-70s was to dethrone an image of history as a practice equipped with its own adequate theoretical apparatus, insisting instead on the need for a theory of the social totality that explained continuity and change in ways more sophisticated than the historian's easy emphasis on events and trends:

> It is very important to welcome work of this provocative power and subtlety, and the welcome it deserves is a critique which tries to take the argument forward, rather than throwing it back. Anything less would be a disservice to Poulantzas's project — a political project which Marxists cannot ignore or brush aside. Not to take Poulantzas's history seriously would also merely confirm the bankruptcy of self-confessed historians, trained generally to a level of sophistication little more demanding than that represented by the supposed distinction between facts and ideas. If we must learn to elaborate a problematic which will not turn history into a prolonged tautology, we must also realise that history conceived unproblematically is reduced to the category of the factitious. Though the latter fate is often unthinkingly embraced by historians, no Marxist should be satisfied to be numbered in their company. (Source: Jane Caplan, "Theories of Fascism: Nicos Poulantzas as Historian", History Workshop Journal, 1977, pp. 83-100.)

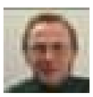
Tooze (2023) China's housing blues, the new S in ESG, humanity's history and Mao in the Middle East

Part I

Appendices

Appendix A

About



Dyre Haugen and *Dyrehaugen* is Webian for *Jon Martin* - self-owned Globian, Webian, Norwegian and Canarian with a background from industrial research policy, urban planning and economic development consulting on global, regional and urban scales. I am deeply concerned about the (insane) way humanity (i.e. capitalism) interfere with nature. In an effort to gain insights in how and why this happens stuff is collected from around the web and put together in a linked set of web-sites. The sites are operated as personal notebooks. However, these days things can be easily published to the benefit of others concerned with the same issues. But be aware - this is not polished for presentation or peer-reviewed for exactness. I offer you just to have a look at my 'work-desk' as it appears in the moment. Any comment or suggestion can be mailed to dyrehaugen@gmail.com You can follow me on twitter as @dyrehaugen. Thanks for visiting!

Appendix B

Links

Current Dyrehaugen Sites:

- rcap - On Capitalism (loc)
- rclm - On Climate Change (loc)
- recs - On Economics (loc)
- rfin - On Finance (loc)
- rngy - On Energy (loc)
- renv - On Environment (loc)
- rsts - On Statistics (loc)
- rtch - On Technology (loc)
- rurb - On Urbanization (loc)
- rvar - On Varia (loc)
- rwsd - On Wisdom (loc)

Blogs:

- rde - Blog in English (loc)
- rdn - Blog in Norwegian (loc)

Discontinued:

- jdt - Collection (Jekyll) (loc)
- hdt - Collection (Hugo) (loc)

Not listed:

- (q:) dhe dhn jrw56
- (z:) rcsa rpad rstart

Appendix C

NEWS

Appendix D

Sitelog

Latest Additions