IN DEFENCE OF GROSSMAN AND ROBERTS.
IS THERE A FINAL ECONOMIC CRISIS WHICH WILL FELL CAPITALISM?

> This article was inspired by a YouTube meeting to launch a new edition of Henryk Grossman's writings. The two guest speakers were Michael Roberts and Rick Kuhn the editor. Following that there was a cheeky riposte by Andrew Kliman. More a case of a Fliman trying to turn a Grossman into a Drossman. This article seeks to deepen our understanding of what Marx's crisis theory potentiates.

Specifically, this article focuses on the tendency for the rate of profit to fall and the consequences of its fall. Marx and Engels were supreme dialecticians. For them the arrow of history was not straight but more a corkscrew reflecting the progress of the dominant factor influenced by the countervailing factors acting on it. This is as true for the rate of profit as it is for the centralisation of capital.

The dominant factor governing the fall in the rate of profit, unless you are Dr Jefferies, is the rising technical composition of capital. In order to economise on labour time, capitalism must invest in raising productivity. Thus in simple terms, capitalism ends up investing in more and more machines and equipment, and relatively fewer and fewer workers. But machines do not produce profits only workers do. Thus there is more and more capital over which to measure profits, but fewer and fewer workers to produce these profit. All things being equal, this will result in a fall in the rate of profit.

This is the simple case to which we need to add back the complicating factors. Firstly, the physical increase in the means of production outpaces the rise in fixed capital in its value form, because these means of production are themselves cheapened by rising productivity. Secondly, rising productivity also cheapens the articles of consumption workers live on thus allowing for a reduction in real wages and thereby for a rise in profits. Thus while there are fewer workers, each one now produces additional profits, and it is the ratio between the fall in the number of workers and the rise in profits each one produces, which governs the total amount of profits.

Moreover constant capital comprises both fixed and circulating capital such as materials, components and power. Here there is more scope for cheapening because the effect of rising productivity is more immediate as these inputs are produced often on a daily basis. However, when we add up this cheapening effect as against the volume effect of both circulating and fixed capital, it is clear from the data that the cheapening effect does not overwhelm the volume effect and thus while the cheapening effect slows down the rise in the amount of capital it cannot reverse the rise in the value of capital.

The only events that can reverse the rise in the value of capital is its actual destruction, its devaluation through bankruptcy or forced sale, and finally moral depreciation whereby the value of older capital is eroded by the introduction of newer more advanced forms of capital. Actual destruction other than wars includes the closure of factories and plants and the scrapping of their means. Alongside actual destruction, devaluation or depreciation generally occurs at the end of the industrial cycle when growth gives way to recession resulting in excess capital, which if it is to function later, requires a new owner purchasing it at a steep discount, usually vulture capitalists. Finally, moral depreciation is a continuous process whereby older capital is progressively devalued as the weight of the newer capital in the industry grows.

Marx deals with further counter-vailing factors in Chapter 14 of Volume 3. Foreign trade is important as we have seen with the recent phase of Globalisation. I have focused on the discounts forced on Chinese manufacturers by the Imperialist Corporations and their Importers which serves to reduce circulating capital while boosting profits. And there is another neglected aspect Marx deals with under 'share capital', and that is the recent rise in interest bearing capital in the form of the partnerships making up Private Equity and Hedge Funds, which today are sizeable. (The conversion of capital from profit bearing to interest bearing, removes some of the capital over which profits are measured thus raising the rate.)

I have always compared the movement of the rate of profit to that of a glider. A glider being unpowered is constantly drawn towards the ground by gravity or in this case, the gravity exerted by the composition of capital. However, during the day when the sun shines heating up the air forming updrafts, the glider is able to overcome gravity and soar upwards. This is synonymous with a rise in the rate of profit. But these updrafts are temporary whereas gravity is permanent, and so as the day progresses into the night and as the setting sun cools the air, the glider is forced down to the ground. That undulating effect mirrors the rise and then the fall in the rate of profit. Strange as it may seem, while capitalists acknowledge this effect because they are both enriched and impoverished by it, some Marxists do not.

Cycle versus secular.

The business, or industrial cycle as it was called by Marx, is a fairly regular event because the typical length of the cycle is between 7 and 10 years. It is caused by a breakdown in the circulation of capital which manifests itself as the unsupportable rise in unsold inventories or stocks. This fall in demand is not caused by a fall in personal consumption. The monthly and quarterly data is clear on this. Rather it is caused by a deceleration in the turnover of circulating capital. Until I unearthed the turnover formula this was not obvious.

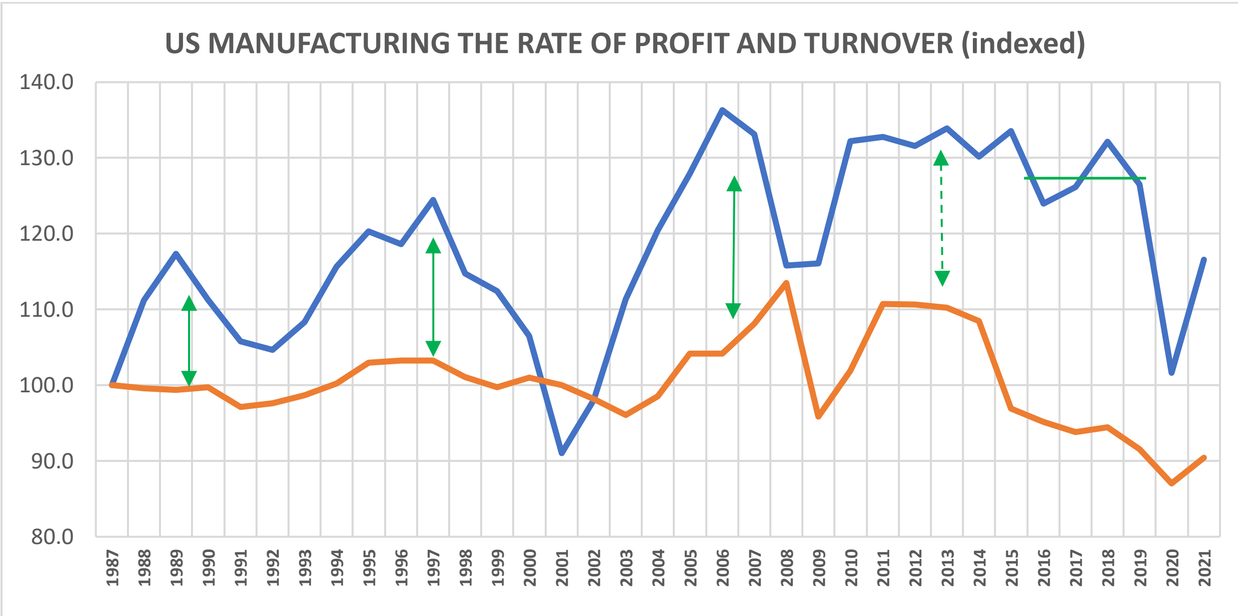
The speed at which circulating capital turns over is a function of both technical and market conditions. By technical is meant the reduction in the time taken to produce the commodity and to move it to the point of sale which may be distant from the point of production. In terms of effect, the improvement in the techniques of production, storage and transport tends to shorten the period of turnover thus increasing the rate at which it can turn over within a calendar year. The only technical condition which can slow it down is a natural calamity such as floods, or the reduction in natural endowment, say a seam of copper which thins or can now be only found at a deeper level.

On the other hand market conditions work in both directions. Improving market conditions can accelerate the circuit to its technical limits whereas deteriorating conditions can decelerate the circuit far below its technical potential. The obvious question which arises is this; what sets market conditions? As in all things capital, it is the rate of profit. The rate of profit begins to fall, before, not after the rate of turnover slows down, though the deceleration in the rate of turnover then steepens the fall, turning a relative fall in the rate of profit into an absolute fall, and it is this absolute fall which precipitates recession.

This can be seen when examining the coincidental movement between the rate of profit and the rate of turnover. The graph below covers profitability and turnover in the manufacturing sector within the USA and extends for 34 years sufficient to include 3+1 recessions therefore 4 cycles. The rate of profit is pre-tax profits divided by both fixed and circulating capitals.

The turning points are different. The **solid** green arrows pointing to three recessions show that the rate of profit tends to fall before turnovers fall. On the other side it is only when the rate of profit recovers significantly that the rate of turnover reverses course and starts to rise. Ideally quarterly figures rather than annual figures would be better as they would provide more granular data and therefore more precise readouts, but unfortunately quarterly data only goes back to 2005.

Graph 1.



There is a final point to be made. The rise in the rate of profit is associated with a rise in the rate of turnover. Furthermore, the higher the rate of turnover the higher the resulting rate of profit. Thus the peaks in the rate of profit found in 2006 and then between 2011 and 2015 are associated with higher rates of turnover which are indexed at 110. Conversely, the fall in the rate of turnover post-2014 ultimately helps depress the rate of profit by one twentieth between 2016 and 2019 to an average level of 127.2 (green line).

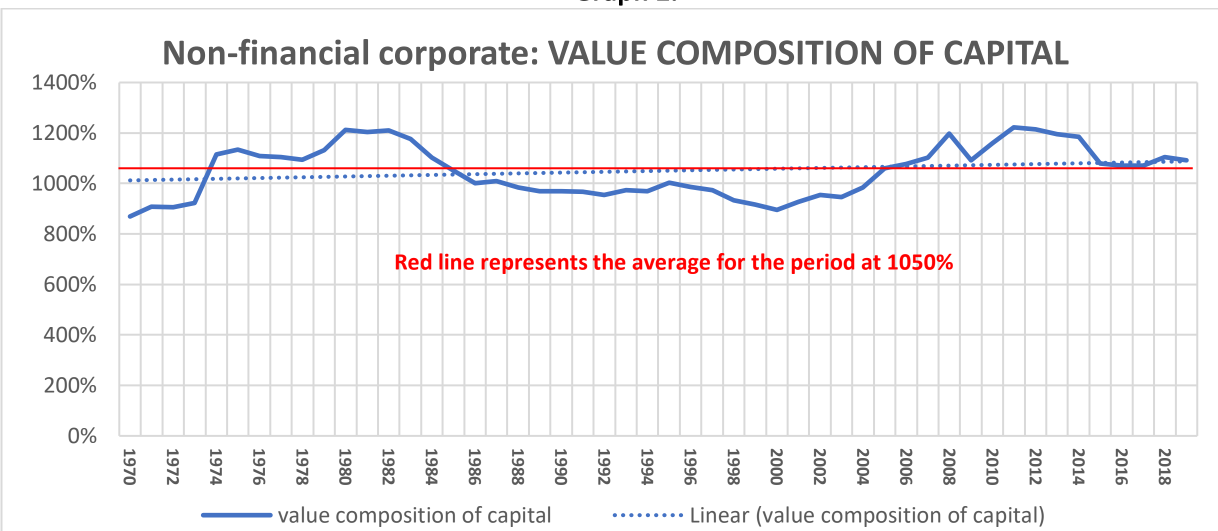
We observe the shape of the curves in the rate of profit which approximates a sine wave and we observe the duration of the cycle. Over the period 1984 to 2019 (pre-pandemic) there were 3 recessions, 1989, 2001 and 2008 (with a recession narrowly avoided in both 2016 and 2019) yielding cycles with an average duration of 11 years in this case. (Had cheap money not prevented the pseudo recession at the end of 2015, the average duration of the cycles would have been 9 years.)

Having exhausted the insights into the cyclical fall in the rate of profit let us turn to the secular fall. The fall in the rate of profit is a function of the rising composition of capital. Therefore, the key assumption to be tested is this, does each succeeding cycle begin with a higher composition of capital making it more prone to a deeper and more abrupt crisis together with an accelerated fall in the rate of profit. And were this to be the case, would it not require more robust counter-vailing measures risking greater political fallout, because counter-vailing factors are always anti-working class, therefore damaging to society.

Marx and Engels always admonished communist investigators to be practical, to hone their science in the form of an applied science and not to remain trapped within the self-indulgent labyrinth typical of a pure theoretical science. So provided we have sufficient theory to construct the tools and measures needed to examine our subject, we may proceed with our investigations. This is the reason I unearthed the turnover formula to distil annual wages into variable capital because annual wages cannot substitute for variable capital without crudifying our measures.

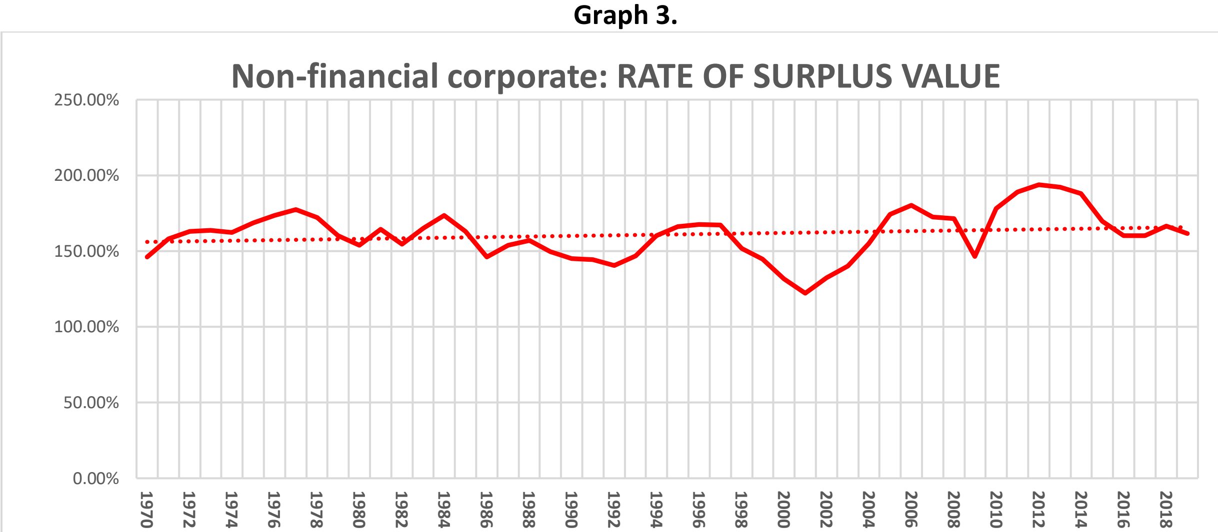
So what does the data tell us when measured accurately? I chose to begin in 1970 which marked the beginning of the end of the post war boom, and which allows 50 years of investigation up to 2019. The non-financial corporate sector is chosen because it is the biggest sector not hamstrung by a profusion of duplications and imputations disorganising the data. The graph below answers the question. No, successive cycles of production did not build on higher compositions of capital, at least not in the USA.

Graph 2.



Between 1970 and 1980 there was a sharp rise in the composition of capital. It remains a period of investment but also a period where the data is disturbed by the ending of the dollar-gold connection and the subsequent sharp devaluation of the dollar against gold and foreign currencies. We then have a 20-year period beginning in the early 80s where the composition of capital actually falls by over a quarter (the rust belt period). Then we have a 15-year period when the composition rises to its highest point. After which it falls by nearly a 10th from 2014 to 2019. In all we have two rises and two falls.

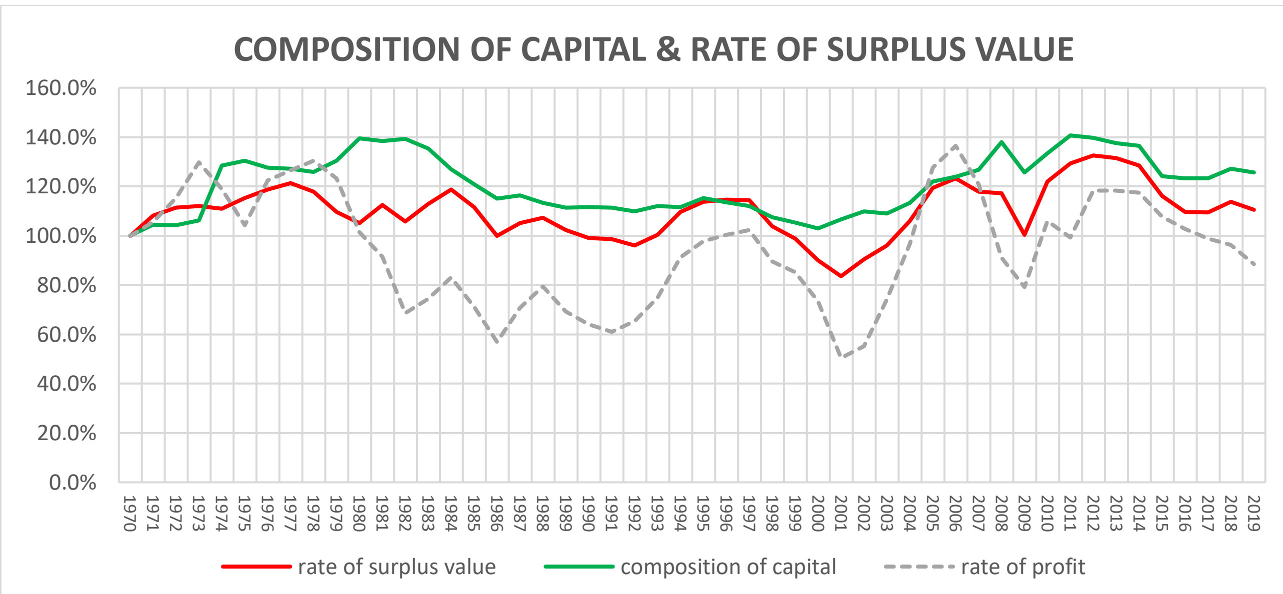
Graph 3.



Turning to the main counter-vailing factor in Graph 3 above we find a pattern which is slightly different because the rate of surplus value in the 21st century is higher compared to the 1970s. This exceeds the rise in the composition of capital over this period. This is due to two factors, the depression in US wages as well as the enhanced transfers of value from countries such as China courtesy of globalisation.

Now it is time to put together the irregular rise in the composition of capital with that of surplus value in order to determine their combined effect on the rate of profit. The rate of profit consists of three variables. Profit which is the numerator comprises unadjusted pre-tax profits (row 37 NIPA Table 1.14). The denominator is based on both fixed and circulating capital. (All the data can be read off the accompanying spreadsheet based on Table 1.14 for the corporate sector.)

Graph 4.



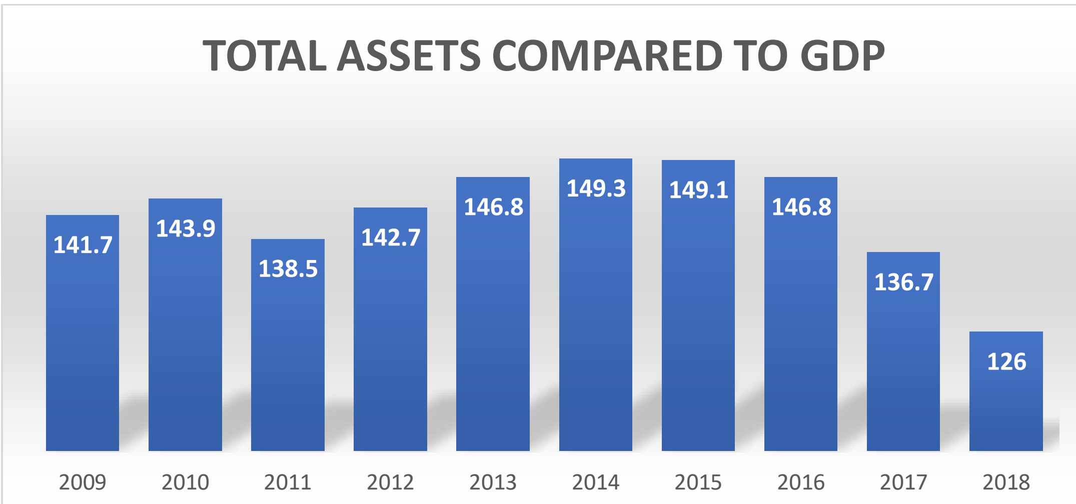
The interaction between the composition of capital and the rate of surplus value yields the rate of profit. Where the gap between the green and red graph is at its highest the rate of profit is depressed, all the more so when the gap takes place further down the vertical axis (x axis). Conversely where the gap narrows and where this narrowing occurs higher up the x axis, the more the rate of profit is elevated. Thus the collapse in the rate of profit during the 1980s and part of the 1990s is reversed this century before once again falling post-2014 due to the combination of a deceleration in the employment of means of production (productivity) and an acceleration in the employment of living labour.

Does this mean the US economy has regained its Mojo? No, because the temporary advantage it gained from globalisation was then eroded by the rise of China itself, particularly its rise up the value chain. China managed to convert itself from being a sub-contractor into becoming a competitor.

I would also caution the reader from reading too much into the US data in isolation. While it is true that the amount of labour globally expanded exponentially from the 1990s onwards, we just have to look at the increase in employment in China, it is also true that from around 2009 the wave of investment in China was sufficient to ultimately raise the composition of capital globally. Undoubtedly this has contributed to the world wide fall in the rate of profit which began around 7 years ago and which continued uninterrupted until the pandemic.

To illustrate this, we note that between 2009 and 2018 the stock of total assets in China grew by 227% fuelled by the greatest wave of investment in the history of capitalism. Chinese investment grew at an annual rate of +20% for a number of years. However, this soon resulted in an overaccumulation which can be seen below, which shows a rise up to 2015 followed by a decline in assets when measured against GDP.

Graph 5.



The takeaway from this is that we have to be dialectical and not dogmatic. I do not believe in long-waves or long uninterrupted processes. History is not organised that way. We need to examine the data as we go along, and if trends change as they are now doing, we need to account for that change. Which is why I differ in perspectives with Michael Roberts who sees 2008 as decisive whereas I see the post 2014 period as decisive. 2008 did not end globalisation merely interrupted it, but the fall in global industrial profits post 2014 certainly marked out the beginning of the end of globalisation. It unleashed growing tensions within imperialism and between a moribund US and a rising China culminating in the 2018 tech embargoes.

Henryk Grossman.

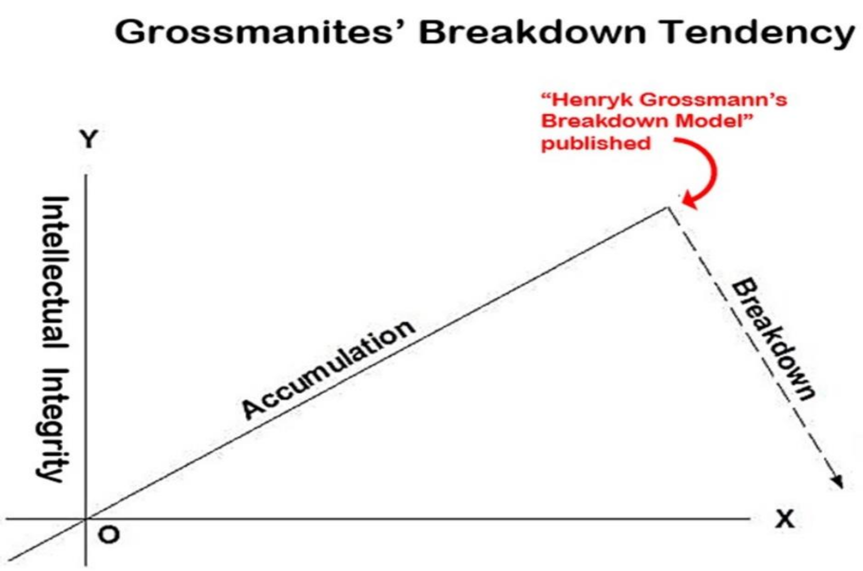
There are three major explanations for the recurring crises of capitalism. Disproportionality, under-consumptionism and the tendency for the rate of profit to fall. It is important to locate the discussion over the crises of capitalism back to the period in which Grossman operated. Even a leading revolutionary such as Rosa Luxemburg based her theory on a blend of disproportionately and under-consumptionism dismissing the key role of the movement of profits. It is likely that Luxemburg, who remained a revolutionary until she was murdered on the instruction of the social democratic leadership, was somewhat protected by her views on disproportionality which she maintained could not be resolved smoothly but only convulsively through attacks on workers, wars and the agency of imperialism.

The rest of the theorists such as Kautsky, Hilferding, Bauer and so on decayed to a lower political level by adopting the under-consumptionist theory of crises. The thing about under-consumptionism, aka low wages and inadequate government spending, is that its proponents claim it can be remedied within the framework of capitalism. That is why in the end, it became the preferred economic dogma of the reformists which continues on to this day, its modern and contemporary form being Keynesianism.

Grossman stood out. Almost alone he promoted the tendency for the rate of profit to fall as being the arrythmia in the heart of capitalism which could ultimately prove fatal. Specifically he shot down Bauer's 1913 schema based on Marx's reproduction process found in Volume 2, which Bauer claimed showed there was no inherent breakdown in capitalist production. This is explained particularly well by Ted Reese in his book *THE END OF CAPITALISM, THE THOUGHT OF HENRYK GROSSMAN* (from page 48 onwards). What Grossman did was to extend the number of periods in which capital reproduced itself beyond the 4 cycles Bauer used to prove his point, revealing that by period 36 the opposite occurred, breakdown actually takes place. What has not been recognised up to now, because turnover times went unnoticed, is that 36 cycles approximates the length of the typical industrial cycle of 7-10 years because turnovers amount to between 4 and 5 per annum typically. But that is by and by.

This is what Kliman objects to in his flat earth world. This is the graph he presents to illustrate his view that both Grossman and Roberts have a catastrophic view of crises, where capitalism reaches the point that it loses its wings and goes into a terminal nose dive, if such a dive is possible in a two dimensional world.

Graph 6.



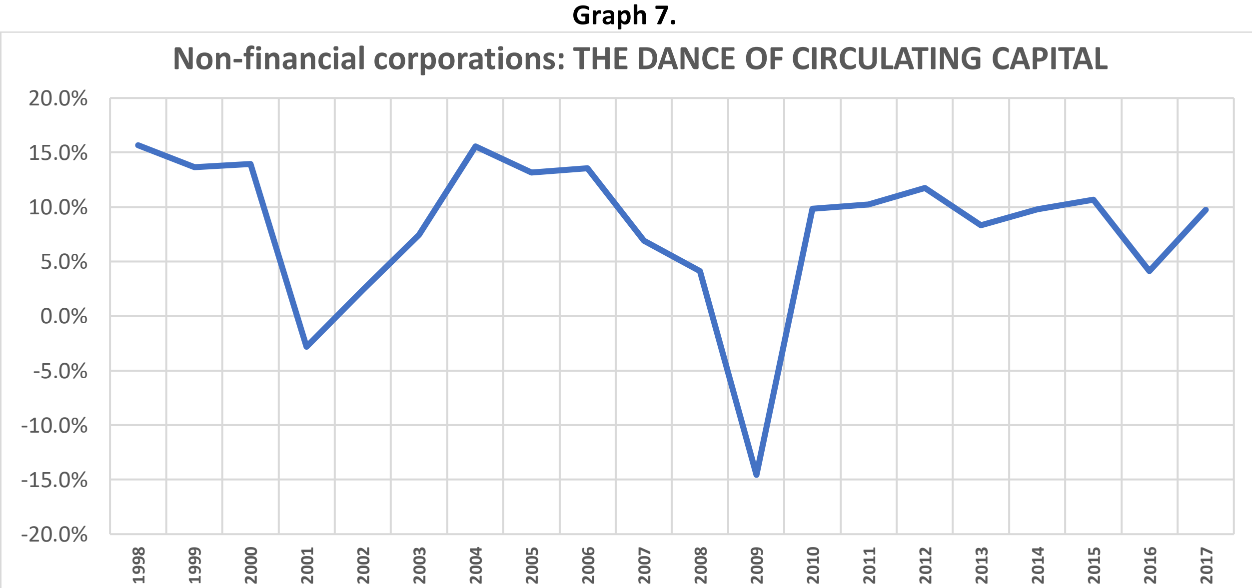
I have my differences with Michael, but that does not include caricaturing his treatment of the rate of profit. At no time did he or Grossman ever treat the movement in the rate of profit in the absence of the counter-vailing factors acting on its fall. Michael has consistently compared changes to the composition of capital (crude as it is because he uses of annual wages) to changes to the rate of surplus value (crude as it is because he uses annual wages) to explain the movement in the rate of profit (crude as it is because he excludes circulating capital). Contained within the rate of surplus value are many of the counter-vailing factors, particularly the degree of exploitation. Michael in common with Grossman has consistently and often elegantly explained that Marx's breakdown theory is based primarily on the movement in the rate of profit. Both of them have therefore stood against the stream of under-consumptionists and their remedies to restore consumption. And Michael has provided sterling evidence that it is profit what determines investment not investment what determines profit. This seems a very strange argument to have, given that the capitalists and their apologists readily admit that it is the profit motive acting through price discovery, which drives capitalism by stimulating investment. Oh yes, their publicity agents may claim that their bosses are acting in the interest of all their stakeholders, but in the end capitalists are mere automatons; greedy for profits and inhuman towards society.

Today we can say with a great deal of certitude that neither under-consumptionism nor disproportionality is the core problem of capitalism. And we can do so only now, because we have at our disposal, the means of estimating circulating capital. To his credit Michael was one of the first Marxists to acknowledge the importance of the turnover formula and the uses its could be put to. Today he uses gross output data or total sales, to show investment is by far the larger part of productive consumption, as opposed to personal consumption. When viewed from the perspective of GDP, limited as it is to final sales, personal consumption amounts to 70%, but when viewed against total sales or Gross Output which is bigger, it falls to below 40%. Indeed when we adjust for imputations, personal consumption is about 35% of total sales.

Now given that **annual** personal consumption typically comprises the cumulative sum of 4 periods of production and circulation, and by reducing it to a single period, the amount of personal consumption is also reduced to one quarter its original size, and now that it is commensurate with circulating capital we find it is only **one fifth** the size of circulating capital. Thus any changes to circulating capital will have a more profound and fundamental effect on the economy than changes to personal consumption. And this is something that Michael and I agree on. Not only does investment outweigh consumption but it is much more volatile. Circulating capital expands faster in the upturn and collapses faster and deeper during the downturn. This can be seen in the graph below taken from two articles I wrote at the end of 2018.

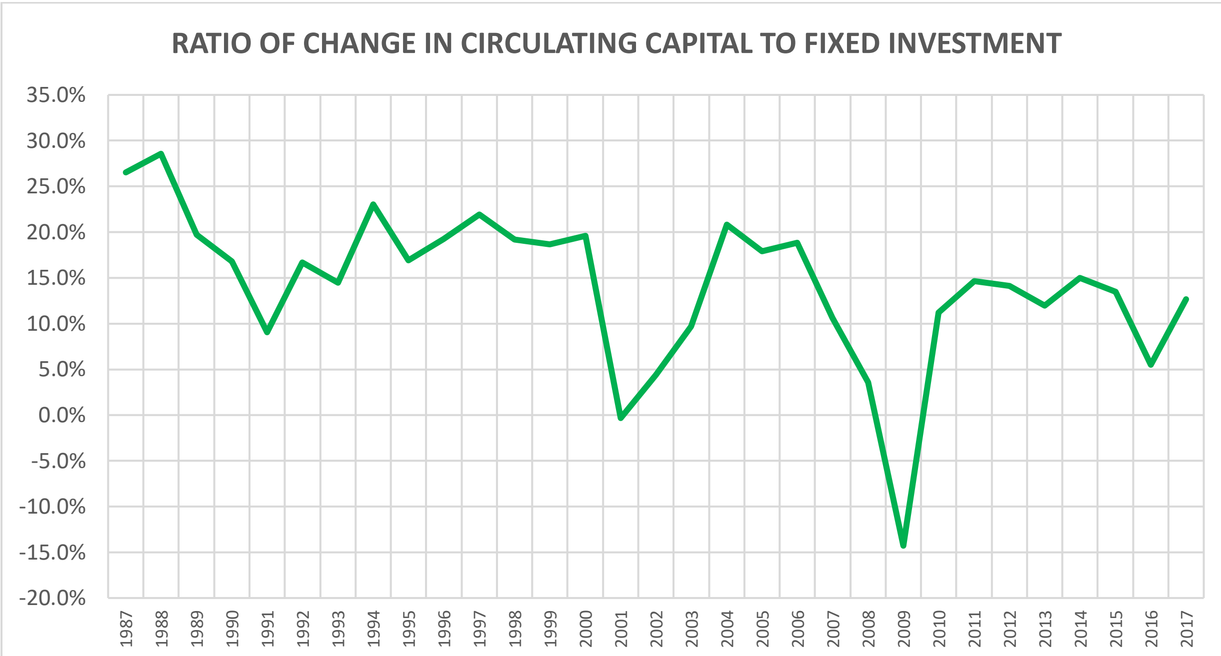
To obtain changes to the amount of circulating capital I deducted the amount found in the previous cycle from the amount found in the current cycle. (There are about 4+ cycles per annum so each is <90 days in duration.) To obtain fixed investment I used net investment or gross fixed investment less depreciation. All data refers to the non-financial corporate sector.

Graph 7.



And I then compared the volatility of circulating (or fluid) capital to fixed capital as in the graph below. It shows circulating capital to be more volatile than fixed capital.

Graph 8.



What does this all amount to? Because of the emergence of the turnover formula and with it the formula for estimating circulating capital, the data proves conclusively that it is investment what determines the rhythm of the economy, and that disproportionality and under-consumption only play subsidiary roles. Because of our new tools we can deploy doppler for the first time to detect movements hitherto undetected, and further, to estimate their speed, direction, extent and weight. Is this not the real purpose of science, namely to move beyond appearances?

Now that we can estimate circulating capital and connect it to the general movement, there can be no dispute that investment determines production, and that investment itself is determined by profitability. Both Michael and I have sequenced the relationship between profit movements and investment movements to show that changes to profits always precede changes to investment and not the other way round. This leaves only one conclusion: profit drives investment, investment does not drive profit.

Michael Roberts is in many ways the Henryk Grossman of the 21st Century. Like Grossman he has steadfastly defended the rate of profit as being the most important law governing capitalist production and breakdown. Like Grossman he has not excluded the counter-vailing factors which modulates this law. And like Grossman he has had to maintain his footing against the reformist current which claims that Keynesian methods combined with Modern Monetary Theory can smooth the turbulence in capitalist production while reducing inequality.

Kliman's cheap critique of Grossman and Roberts, despite its flowery language, will not do. This kind of arrogance which always derives from an overestimation of one's own theoretical abilities, is the antithesis of what is required to refine our theories. (Note. 1) It's not only poor taste but poor timing, because Kliman is pooh-poohing breakdown now, in the 2020s, the decade which will decide the future of humanity.

Transforming capitalism is complex.

There is no mechanical final breakdown of capitalism only its conscious overthrow. Capitalism does not finally breakdown, it is put down by class conscious workers. To survive, capitalism needs to defeat workers every time it crashes, workers only have to successfully defend themselves one time.

The cyclical rise in the composition of capital which propels productivity also raises the standards of society both culturally and socially. It not only revolutionizes the techniques of production but the resulting use values, which like the smartphone are of a higher order. The majority of the world's population is now urbanised, educated and more connected than ever. Overall, society today is much more sophisticated than it was a hundred years ago and its expectations are higher.

This seems odd given that neo-liberalism appears to have successfully atomised workers and retarded their political development. But this has merely been a reaction by the idealogues of the capitalist class to historically positive changes in the underlying material conditions together with the growing social weight of the working class which potentiates revolution. It will be more easily undone than most pessimists think.

The solution to the crisis of capitalism, aptly encapsulated by the term - creative destruction – is necessarily anti-working class because it involves mass unemployment, lower wages, harder work and fewer services. Thus when workers start to defend themselves effectively, this blocks the capitalists from escaping their crisis thereby deepening it and driving them and their economy to the edge. Indeed, in Britain today, workers are enduring the most savage attack on their standards of living in 90 years and resistance is growing despite the dead hand of most labour leaders.

Thus our discussion about whether the composition of capital will rise to such an extent that it is unsolvable, is one sided and therefore not very fruitful. However, the general axiom that the higher the organic composition of capital the more developed society becomes, holds, as does the associated axiom that any crisis unleashed will therefore have a greater political backlash. Here then is the rub. The fusing of the objective and subjective elements into the compound of revolution.

The emergence of a revolution or what is the same thing the process of transforming capitalist society is not a complicated but a complex matter. They are different. A complicated process merely adds further aspects to the existing thing or modifies it's older aspects. If overthrowing capitalism was merely complicated, a mechanical process, that task would have been achieved generations ago. But because it is complex it answers the question why capitalism has endured for as long as it has and why the majority of workers, even in the depth of many crises and wars, were not automatically won over to revolution.

With complex an entirely new must be born within the old. This new relates to a transformed class consciousness. Working class consciousness can only be changed, both from within and without, by ideas as well as by circumstances, and ultimately by ideas which connect to circumstances verifying them. It requires a party, it requires united fronts, it requires a programme and it requires propaganda. It represents the greatest battle in history for the hearts and minds of the international working class, which if successful will elevate them from an oppressed class into a ruling class.

Deteriorating economic circumstances help, they make workers more receptive to ideas, not only to our ideas but to ideas from the right posing as their friend. The pre-condition for success on our part requires the prior intellectual mastery of capitalism, for without first mastering capitalism intellectually it cannot be overthrown. Short of that, revolutionaries tend to lose the critical arguments, causing embarrassment rather than victories in the ideological struggle.

Which brings us back to the tendency for the rate of profit to fall. Marx wrote Das Kapital both as a critique of capitalism and as a primer for communism. He had to not only prove that capitalism created the material conditions for communism both socially and technically, but he had to prove that the struggle for communism was legitimate, a struggle legitimated by the inherent flaws within the capitalist mode of production which rendered it crisis prone, therefore non-permanent, because its destructive nature would grow in line with its productive nature.

That is why the tendency for the rate of profit to fall is so central. It is the one law which robs capitalism of its legitimacy and therefore its perpetuity. Bravo to Michael Roberts and Henryk Grossman for making it prominent and for continuing Marx legacy.

Conclusion.

It was in 2019 when I first predicted the 2020s would be the decade which would make or break humanity. This was not an idle perspective. I had been meticulously studying and refining the global rate of profit only to find the rate had been falling systemically for over 5 years, a development never seen before outside a recession. At the same time and connected to this fall, US belligerence towards China and Russia was intensifying. In addition, algorithms were reaching the stage where machine learning was threatening more complex jobs. And finally global warming was accelerating. All in all capitalism was facing a set of interwoven crises which it did not have the capacity to resolve, and which today is summed up by the term 'polycrisis'. I foresaw these crises would be more problematic than 1914, 1929 or 1939. (I did not foresee the Covid virus which had begun to circulate by then.)

The government support given to society and corporations during the pandemic temporarily refloated capitalism on a sea of liquidity, but that is all over and done with now. This is typified by the growing crisis of profitability within the doyen of capitalism itself, Big Tech. By Friday, most large tech corporations had reported their results for the last quarter of 2022, and their revenue and profits uniformly disappointed. As we see below, their revenue fell in real terms and operating income adjusted for inflation was down 25%. Truly, the period of profit gouging had ended with a vengeance to be replaced by profit dousing.

Table 1. (All figures $millions)

Company	Revenue 2021	Revenue 2022	Operating income 21	Operating income 22
Amazon	137,412	149,204	3,460	2,737
Apple	123,945	117,154	41,488	36,016
Alphabet	75,325	76,048	21,885	18,160
Microsoft	51,728	52,747	22,247	20,399
Meta	33,671	32,165	12,585	6,399
TOTAL	**422,081**	**427,318**	**101,665**	**83,711**
Annual change		**+1.2%**		**-17.7%**
Profit margin			**24.0%**	**19.6%**

Capitalism is now entering the conditions which prevailed in 2019 on its way further down. True there is euphoria in the markets at the moment because inflation is subsiding, while conditions over winter didn't turn out to be so bad despite the energy shortages. Looking through the windscreen, and better still, if one is to believe the Wall Street sirens, the second half of the year is going to be golden. Well it won't be. This is just Wall Street pixie dust aimed at luring in the punters to put their chips down on the tables.

Winter may have been mild only because summer will be scorching. Solar 25 is raging and El Nino is a' knocking on the door. Stocks of grain are down 5% compared to 2020 or from 107.3 days to 101.4 days and falling. Any further weather related problems will soon drive this down below the critical 100 days of supply. Weather related problems will continue to feed inflation due to threats to crops and elevated energy usage. After all, air-conditioning units consume as much energy as boilers do.

But it is not only the weather which is conspiring to drive up cost prices. The restructuring of global supply chains and the splitting of the global market into two economic architectures is bound to raise cost prices at a time when profit margins are already collapsing. Every advantage gained from globalisation will have been wiped out. All in all the profit prospects for capital are grim, and if they are grim for capitalists they will be even grimmer for workers, unless workers learn to defend themselves and protect themselves from their misleaders.

Note 1. I cannot abide by the Temporal Single System Interpretation (TSSI) which Kliman subscribes to and which I see as fraudulent because it violates the one condition set by Chapter 10 in Volume 3, and that is to explain how market value is transformed into prices of production, because the TSSI itself begins with prices not values. In addition, while Kliman may celebrate his way of formulating the rate of profit I find it full of flaws as found in my critique of Kliman's book published in 2012.

Brian Green, 5th February 2023.