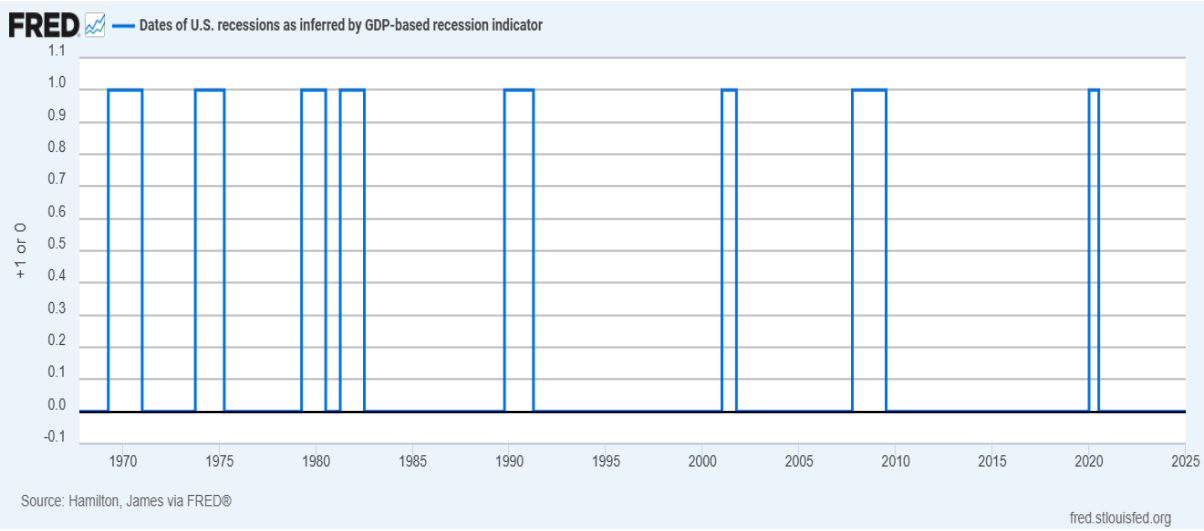
SAM WILLIAMS: CYCLES AND WAVES, REALITY AND ILLUSION.

Sam Williams' eBook, *A Critique of Crisis Theory* is monumental, novel, insightful, thoroughly researched, earning its place in the Marxian lexicon. There is much I have learned, there is much I agree with and much I disagree with both theoretically and in terms of assumptions. One area of disagreement concerns cycles and long waves as expressed by him in his recently published Chapter 34 which I have attached to this article. Also, I disagree with his assumptions about the role of gold which I see as swopping cause and effect, but that's for some other time.

I will firstly deal with his conception of cycles. He posits two cycles, the first caused by an overabundance of circulating capital in the shape of inventory and the other in an overabundance of fixed capital whose circulation (depreciation or longer economic life) is much slower. The former, the inventory cycle or *Kitchin Cycle* he assumes to be four years in duration while the industrial (Marx) or business cycle he assumes to average 10 years.

I will show that separating the crisis formed by circulating capital and that of fixed capital to be theoretically wrong. But first we must challenge his assumption that the industrial cycle is on average 10 years apart. According to the National Bureau of Economic Research NEBR which adjudicates over the business cycle, the average duration of cycles is not 10 years. Rather it averages 5 – 6 years as the table below shows, and as the graph shows, the duration of these cycles is erratic due to internal and external factors some of which are discussed by the author.

Graph 1.



Red indicates that the turning point quarter does not include the turning point month	Duration, peak to trough	Duration, trough to peak	Duration, trough to trough	Duration, peak to peak
1854-2020	17.0	41.4	58.4	59.2
1854-1919	21.6	26.6	48.2	48.9
1919-1945	18.2	35.0	53.2	53.0
1945-2020	10.3	64.2	74.5	75.0

Latterly, that is from 1945 to 2020 it has risen by 16 months to over 6 years. This is closer to Marx's view that it averaged 7 years in his time. The reason for this is due primarily to Central Bank activity in repressing interest rates and the subsequent easing of liquidity in the financial markets at critical junctures. This interest rate repression enabled the US economy to escape recessions at the end of 2015 and again at the end of 2019, however in the latter case, a recession did follow due to the Pandemic. For more information of cycles dating back to 1857 provided by the NEBR follow this link.

The bigger theoretical issue is the separation of the crisis formed by the overabundance of circulating capital and that of fixed capital. To begin with, why should there be a generalised overproduction of inventory? What is the cause? There are two explanations, disproportionality or underconsumption, though they can be interpreted as two sides of the same coin. This cycle, the *Kitchin Cycle*, found predominantly in the uphase of the business or industrial cycle is accompanied by a rise in fixed capital investment insufficient to mop up the excess inventories, or employment which does not rise sufficiently to mop up the excess of consumer goods produced. Whatever the case, in the end, it is a question of production outpacing consumption.

Consumption is a complex question because the surplus of today's society is owned by the capitalist class who can consume it either unproductively or productively, that is spend some of it on themselves or invest the rest in production or waste it on speculation. All these decisions are directly regulated by the rate of profit and indirectly on how this rate modulates interest rates and with it the price of fictitious assets fuelling speculation.

In general, it is changes in fixed investment which accelerates or decelerates production. A rise in fixed investment also means a rise in circulating capital as it implies an increase in inputs and throughputs, as well as employment governed by the prevailing level of technology. Thus, there is an intimate relationship between fixed and circulating capital. Once this is understood it becomes clear why it can be said that there are two Kitchin cycles, one on the upside and the other on the downside, within one Industrial cycle, or what is the same thing, why the duration of the Kitchin cycle is approximately half that of the industrial cycle.

I discussed this in 2019 in the following article ***WHAT DOES THE KITCHIN CYCLE DESCRIBE*?** Here is the opening paragraph of that article. "*The Kitchin cycle always reminds me of a mountaineering analogy. To climb a mountain and return back to base, a mountaineer needs to ascend one slope and descend the same or another slope. But two slopes don't make two mountains, they belong to the same mountain. The business or industrial cycle as Marx described it usually lasts about 90 months. The Kitchin cycle lasts roughly half or 41 months. The Kitchin cycle therefore is about 50% as long as the industrial cycle itself. This is no coincidence. The industrial cycle has the shape of sine wave, or physically, that of a range of mountains. It therefore has an up slope and a down slope which is represented by the Kitchin cycles. Each Kitchin cycle is therefore one half of the whole industrial cycle.*"

Those who describe the Kitchin Cyle refer to four phases in the business cycle, Expansion, Inventory Accumulation, Inventory liquidation and finally Recovery. Marx was more granular; he identified 6 phases. In the up phase he identified rising animation (recovery), prosperity (expansion) and overproduction (excess inventories). But this covered only one half of the business cycle. The other half was crash, stagnation and inactivity. Crash and stagnation being associated with the liquidation of inventories while inactivity is associated with thinned out inventory holdings responsive to any improvement in demand and therefore triggering changes in production itself.

In other words, the actual Kitchin cycle is not measured from peak to peak or from trough to trough as is in the case of the business cycle, but by the cycle of liquidation and accumulation of inventory. Thus, liquidation of inventory and accumulation of inventory mark the opposing halves of the business cycle. The starting point for the regulatory Kitchin cycle proper, the accumulation phase, extends from rising animation through prosperity until the point of overproduction.

Now comes to the nub of the issue. As has been said, fixed capital investment and investment in circulating capital are linked and this link needs to be exposed. Generally speaking, a rise in fixed investment, that is more factories, more machinery and equipment, is associated with an increase in the inputs needed to run those new factories such as power, materials, components, services and so on together with an increase in employment to populate those new factories and also to drive the extra vehicles needed to transport the inputs and outputs.

Thus, the order in which investment takes place outside the sweating of assets, is that it is fixed investment which leads the investment in circulating capital and not the other way around. The antithesis also applies, lower fixed investment leads to lower investment in circulating capital when measured by rate of change. That said, what is taking place at the end of the industrial cycle, and here Mr Williams will agree, is the falling away of fixed investments.

The question posed: is this a sudden event, an episodic event or a cumulative event? To answer these questions, we need to discuss a process which Mr Williams has drawn attention to concerning changes to the organic composition of capital and its effect on the rate of profit. There is a further element which Mr Williams does not draw attention to, which is this, the fact that the organic composition of capital varies between industries depending on their technical requirements, and further, that as a result of this, the growth rate in their compositions of capital will also vary.

The faster the composition of capital rises the more downward pressure is exerted on the rate of profit everything else being equal. Normally the redistribution of surplus value will equalise the rates of profit between sectors masking this variation in composition. But the equalisation process breaks down during periods of overproduction due to the pricing system becoming unresponsive.

We can now bring everything together. Towards the end of industrial or business cycles inventories begin to build up, despite just in time production which helps moderate this increase. In fact, just in time production becomes a hair trigger ensuring production schedules are more sensitive to changes in inventories. But the real kicker is why inventories begin to rise.

The answer is a reduction in the rate of investment, not everywhere but concentrated in those industries where the organic composition of capital has risen fastest and/or furthest. It is in these industries where we find a more rapid fall in the relative rate of profit. It means that while profits may still be rising, they are falling behind the rise in the capital invested in their production. As each new investment in these sectors is met by a lower rate of profit, investment begins to subside.

A fall in investment in one sector is associated with a fall in demand in other sectors. This is the key to understanding the onset of the Kitchin cycle.

These changes in demand can be traced by the change in the prices and volumes of industrial inputs and equipment. Three exhibits are chosen - steel products, machinery, and trucks. In all three cases

we see the expected fall in orders and sales prior to the advent of recession. The only exception is the financial crisis of 2008 itself not an industrial event. The clearest confirmation is found in Exhibit 3 - Trucks. Trucks provide the ultimate proof because they are responsive to both inputs and outputs as trucks transport most products. Even prior to 2008 we see the fall in truck sales. In Exhibit 3 no exceptions are found because unlike the other two Exhibits, this is the only one based on volumes. Additionally, the same falls are seen prior to the pseudo recession at the end of 2015 and 2019.

Exhibit 1

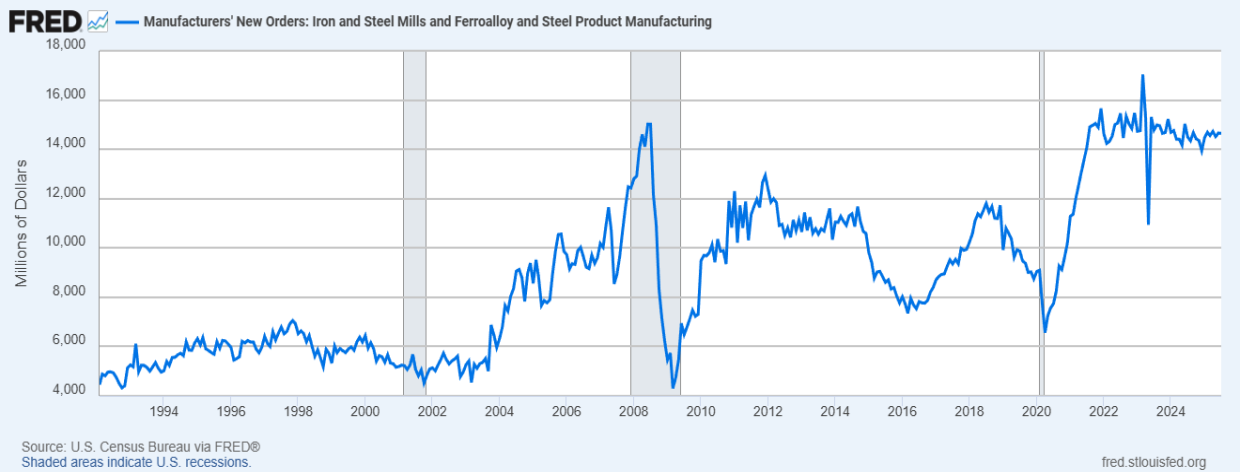


Exhibit 2.

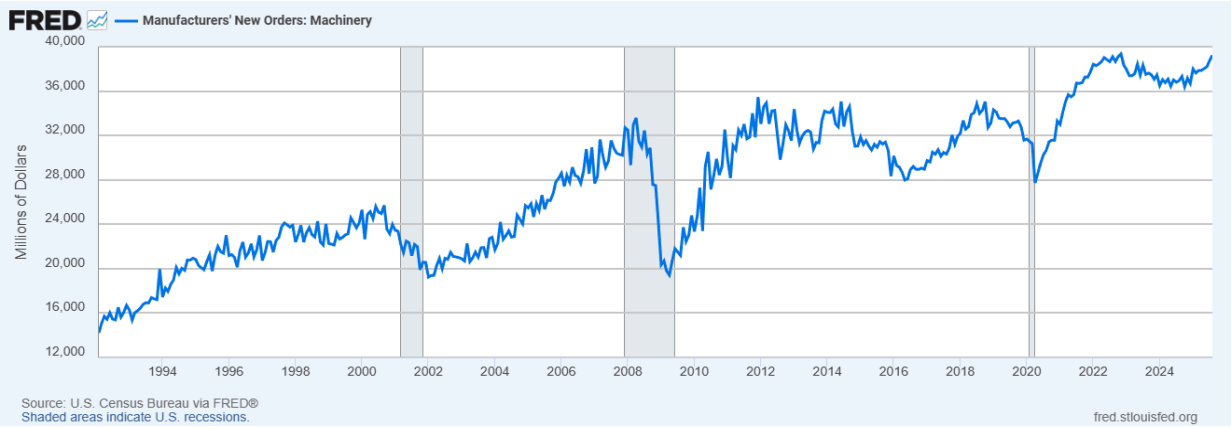
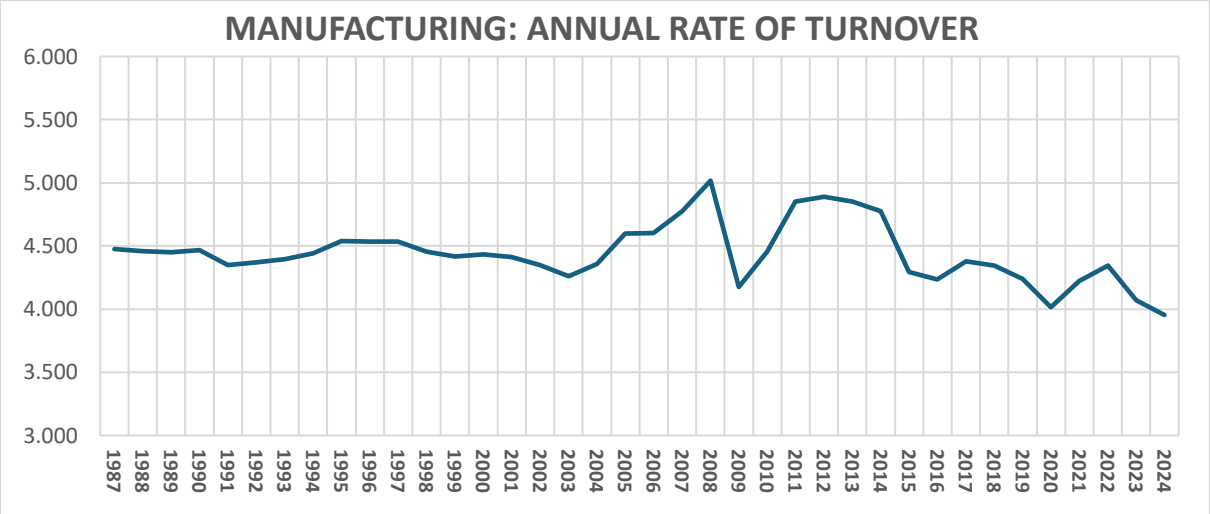


Exhibit 3.

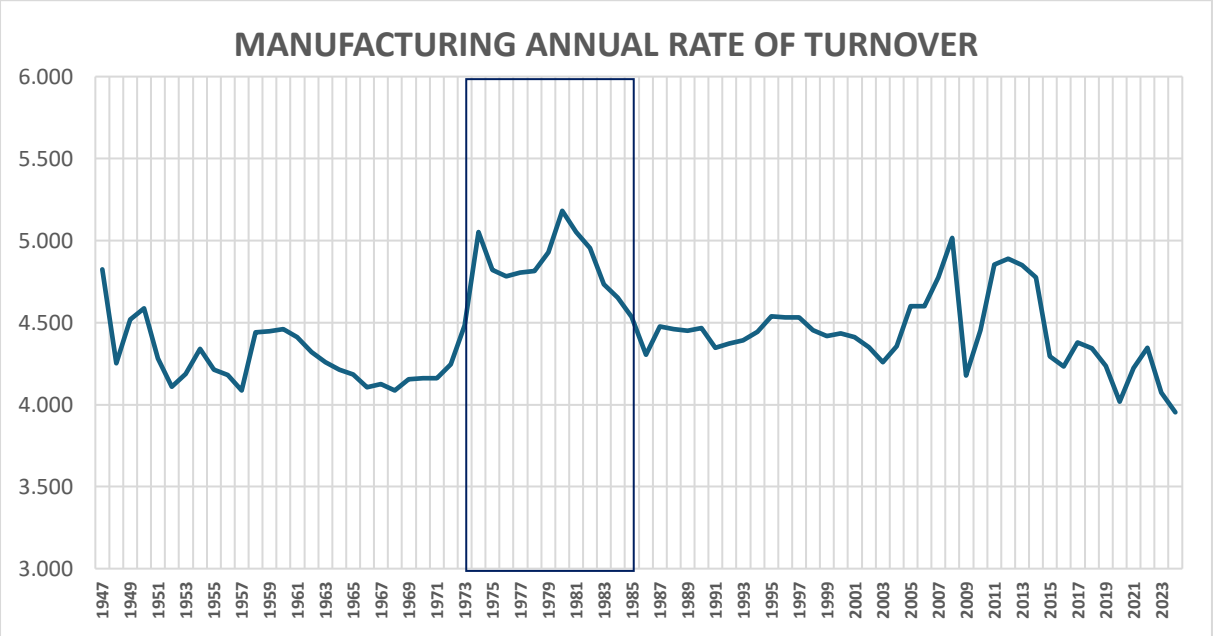
The same rhythm is found with turnover in the manufacturing sector. There are two graphs, one based on the revised series starting in 1987 and the older unrevised series extending all the way back to 1947. Mirroring the above there were falls in turnover prior to the recessions of 1991 and 2001 but not 2008. Thereafter the same falls going into 2015 and 2019.

Graph 2.



With the longer view there is an aberration which will please Mr Williams. The turnover formula shows the effect of the devaluation of the dollar following the abandonment of the gold standard in 1973 and the inflation both domestic and in terms of imports which erupted. The second hump in the mid-teens was caused by the biggest investment boom in capitalist history outside of war which originated in China after the financial crash of 2008 and is associated with the commodity super-cycle.

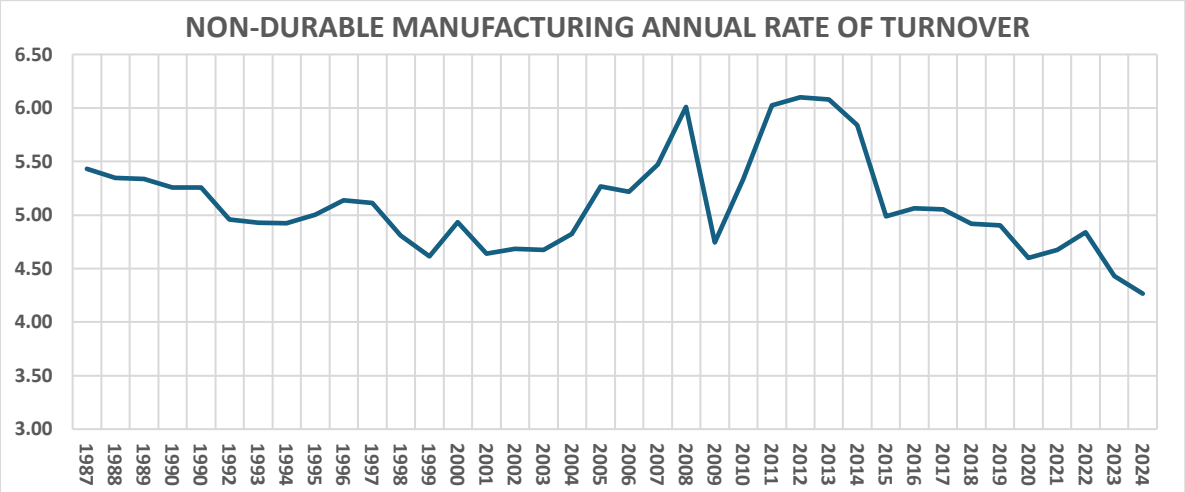
Graph 3.



The volatility of turnover is better seen through the prism of non-durable manufacturers. The fall at the end of cycle and the rise during the period of recovery can be viewed in greater relief in Graph 3. The reason being that non-durables have a shorter lead and production time and are easier to cancel than durable manufacturing where lead times can be measured in months if not years and where

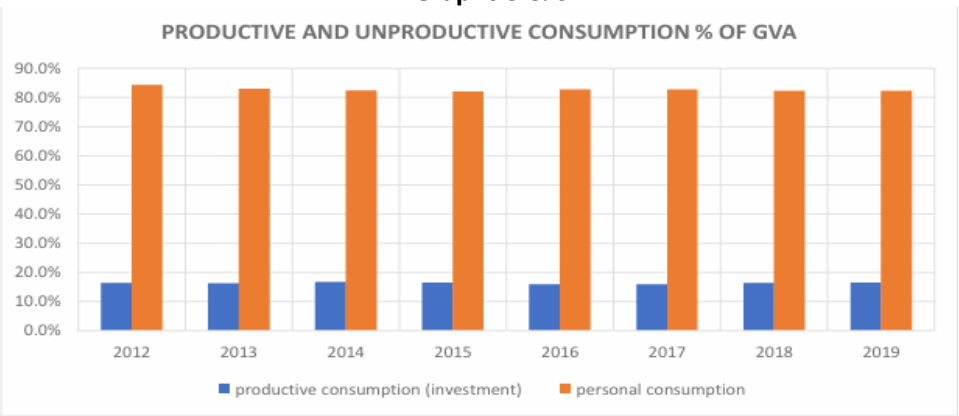
cancellations are more complicated and subject to penalties. It's also interesting to note that turnover has currently fallen to its lowest point in nearly 40 years proving the economy is far from 'resilient'.

Graph 4.



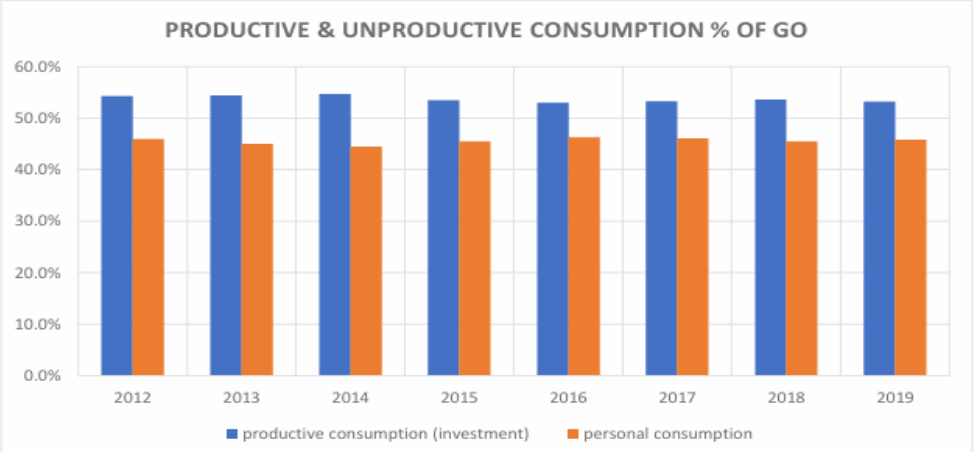
The final part of our analysis is to show that it is investment not personal consumption which drives the business cycle. It is a common misconception that personal consumption is 70% of GDP. It's actually far smaller when measured properly in terms of total sales rather than final sales.

Graphs 5 & 6



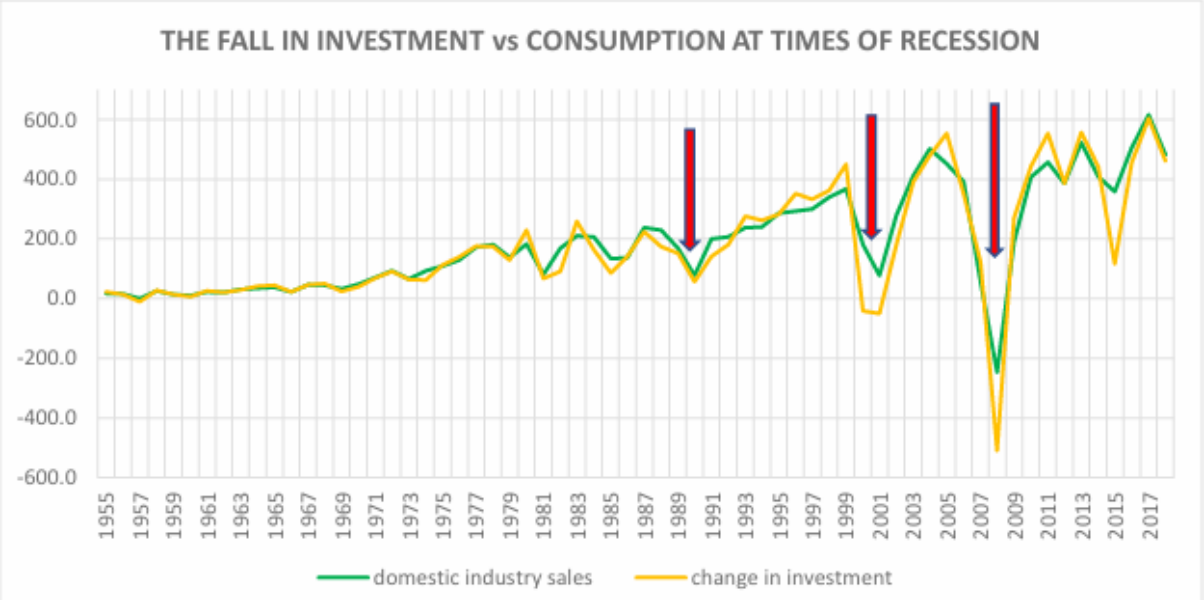
But when we compare PCEs as a share of GO which includes circulating capital the roles are reversed. Now it is productive consumption or investment which dominates.

Graph 2.



Graphs 4 & 5 are taken from the article I wrote titled: *THE MATERIAL BASIS FOR UNDERCONSUMPTIONISM IN GENERAL AND KEYNESIANISM IN PARTICULAR.* The graphs need further explanation. Gross output includes intermediate sales as well as final sales. Intermediate sales or inputs form the major part of circulating capital. When intermediate sales are added to fixed investment and then compared to the value of personal consumption expenditures (PCEs), we find that investment is significantly larger than personal consumption. And finally, as Graph 7 below shows, not only is it larger but more volatile. In other words, productive consumption (investment) has a bigger impact on the direction of the economy and the ultimate height of the expansion as well as the depth of the recession.

Graph 7.



Conclusion.

Due to the need to comment on what is happening in the US economy, I have decided to waive analysis and commentary on Mr Williams's view of gold and its relationship to a cycle that extends beyond the industrial cycle.

Suffice to say, this article confirms that the Kitchin cycle is part of the industrial cycle. That the investment in fixed assets and that of circulating assets are joined. And most importantly that it's the organic composition of capital bearing down on the relative rate of profit which by causing a fall in investment in this or that sector, results in a fall in demand causing the turnover of circulating capital to moderate. **In turn this deceleration in turnover, which precipitates a crisis of realisation**, finally converts the relative fall in the rate of profit into an absolute* fall in the rate of profit, the precursor to recession and financial crisis.

*The relative fall in the rate of profit occurs when profits, while increasing, do so more slowly than the capital invested in their production. The absolute fall in the rate of profit occurs when the mass of profits, instead of rising, now falls. Once the mass of profits start falling, the fall in the rate of profit becomes generalised making most new investments uneconomic, paralysing production.

Brian Green, 20th November 2025.