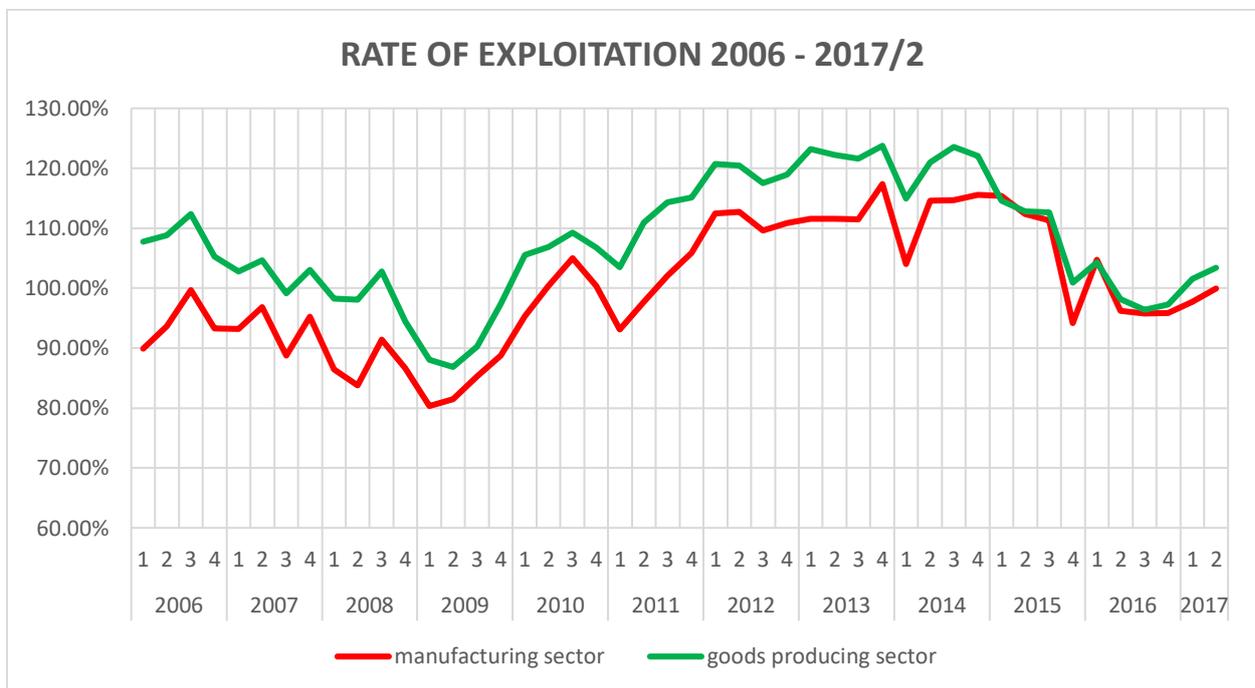


REPORT ON THE SECOND QUARTER, U.S. ECONOMIC HEALTH and the DANFAANGLED share markets.

This posting contains the rate of turnover, exploitation and surplus value extended to the second quarter of 2017. Additionally, it looks at the prospects for the FAANG group of corporations leading the bull run, with Apple at point. Just as the FAANG corporations led the charge up, so in turn they will lead the charge down when the market turns, as it will. The reality is that the economics of the FAANG corporations, apart from Amazon, are frangible.

The value added and gross output figures have just been released by the BEA for the second quarter of 2017. This allows turnover to be extended to the second quarter. While GDP increased significantly in the second quarter this was only partially reflected in the data relating to both the manufacturing sector and the goods producing sector. The rate of exploitation, plotted in Graph 1 showed an increase in both the manufacturing sector and in the goods producing sector. (Rate of exploitation is obtained by subtracting wages and salaries from net value added to obtain the gross surplus which is then divided by the wages and salaries.) The increase was stronger in the goods producing sector because of the rise in the oil price.

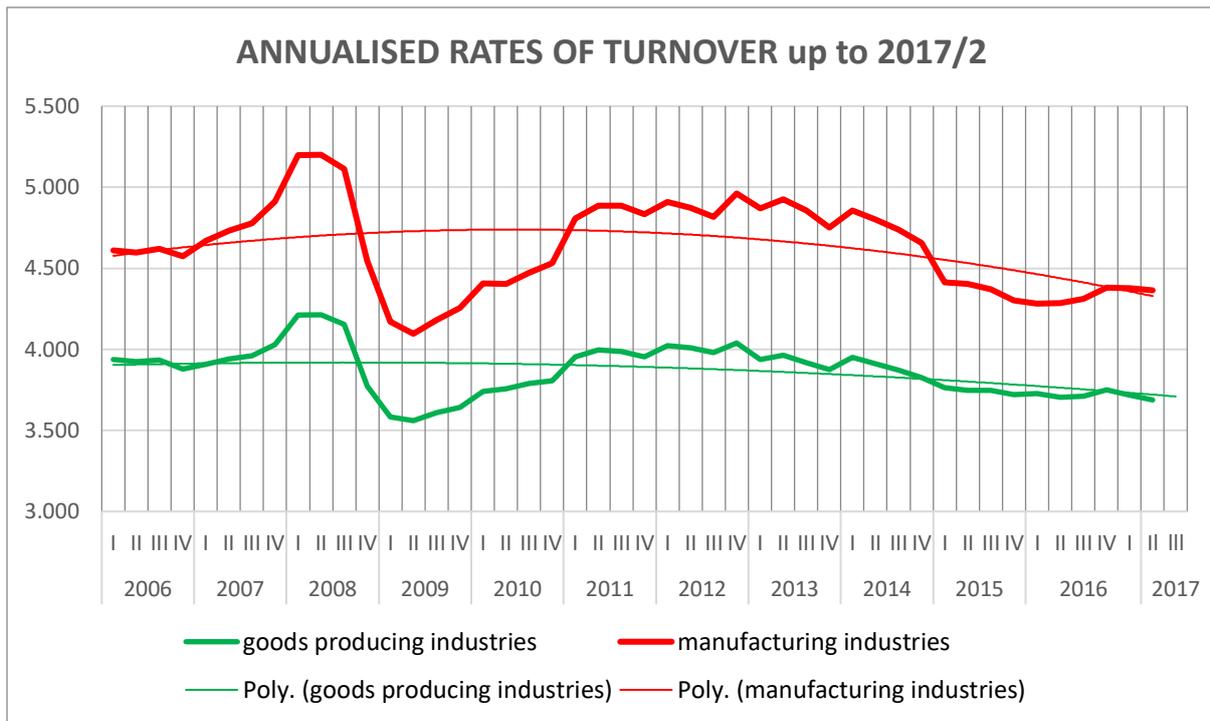
Graph 1.



(Sources: BEA Interactive Tables: National Income and Product Accounts Tables 2.2D for wages and salaries and Table 6.1D for national income.)

While the rate of exploitation increased, this increase was weighed down by the rate of turnover. Having recovered at the beginning of 2016, the rate of turnover has subsequently fallen back during the first half of 2017. This is a slight restatement from the previous report due to the constant revision of the data by the BEA. Given the sharp fall in manufacturing productivity in Q3, it is likely that the rate of turnover continues to sag, though this is partly due to the Hurricanes which devastated the Gulf of Mexico region. It therefore appears that the recovery in the trend in turnovers is currently becalmed. This has implications of course for the rate of surplus value.

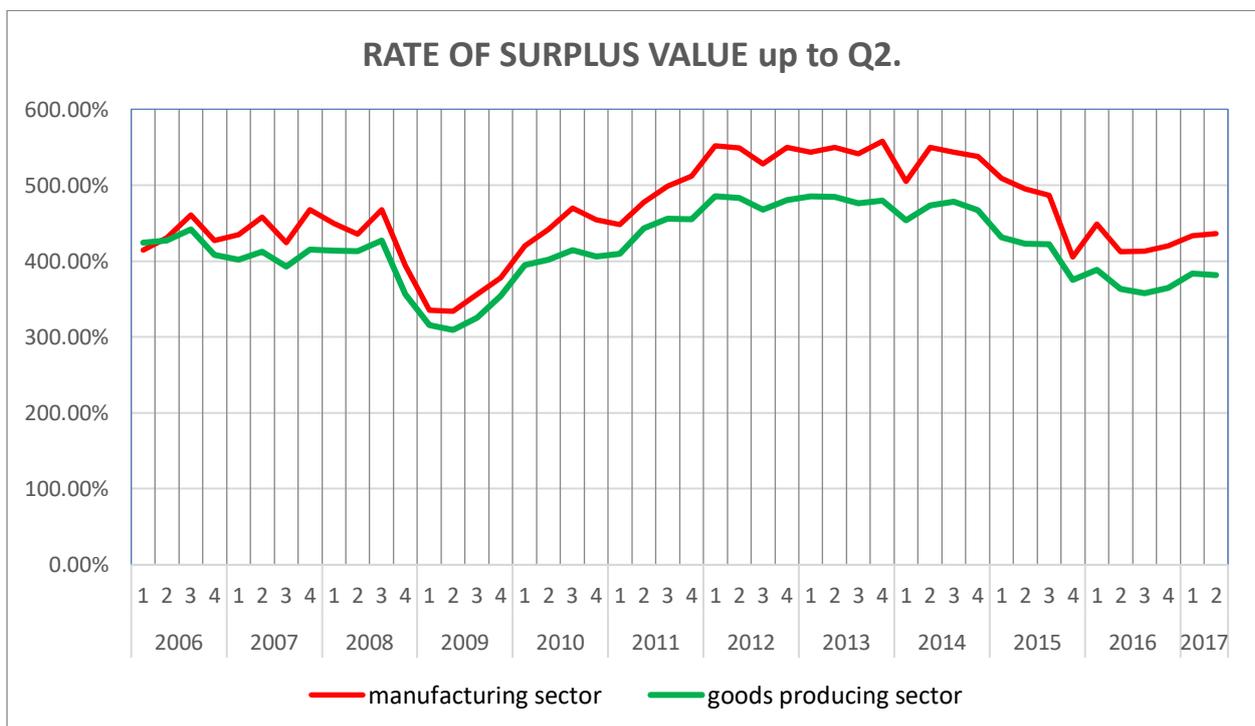
Graph 2.



(Sources: BEA Interactive Tables, GDP-by-Industry, Value Added and Gross Output series.)

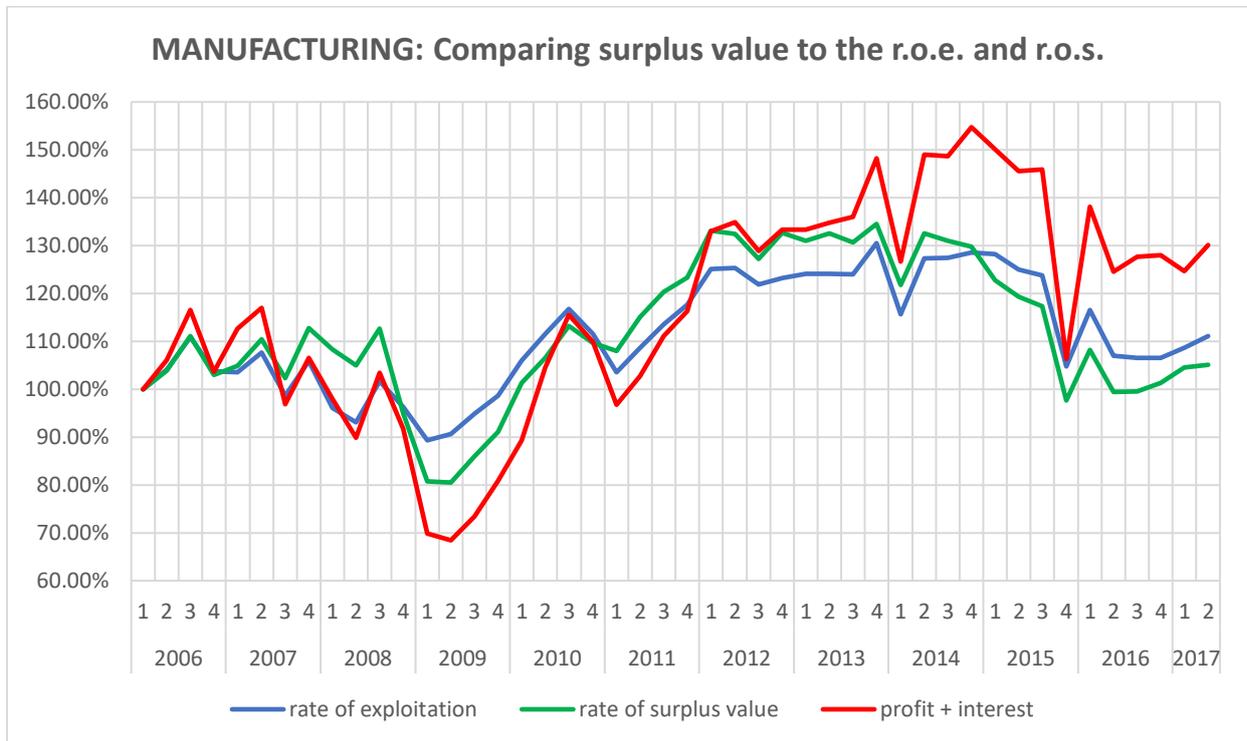
The reduction in turnovers has offset the increase in the rate of exploitation. This is shown in Graph 3 below which plots the all-important Rate of Surplus Value. (Rate of Surplus Value = Rate of Exploitation multiplied by Turnovers.) Once again this is proof of the multiplier effect caused by turnovers.

Graph 3.



The rate of surplus value fell for the goods producing sector in the second quarter. It also reduced the rise in the rate for the manufacturing sector between Q1 and Q2 to insignificance. In both cases the rates of surplus value reside at a level that is 20% below their peaks in 2014. This reduced rate of surplus value in manufacturing weighs on the mass of profits. As Graph 4 below shows, the mass of pre-tax profit plus interest in Q2 was still 16% below its 2014 peak in nominal terms.

Graph 4.

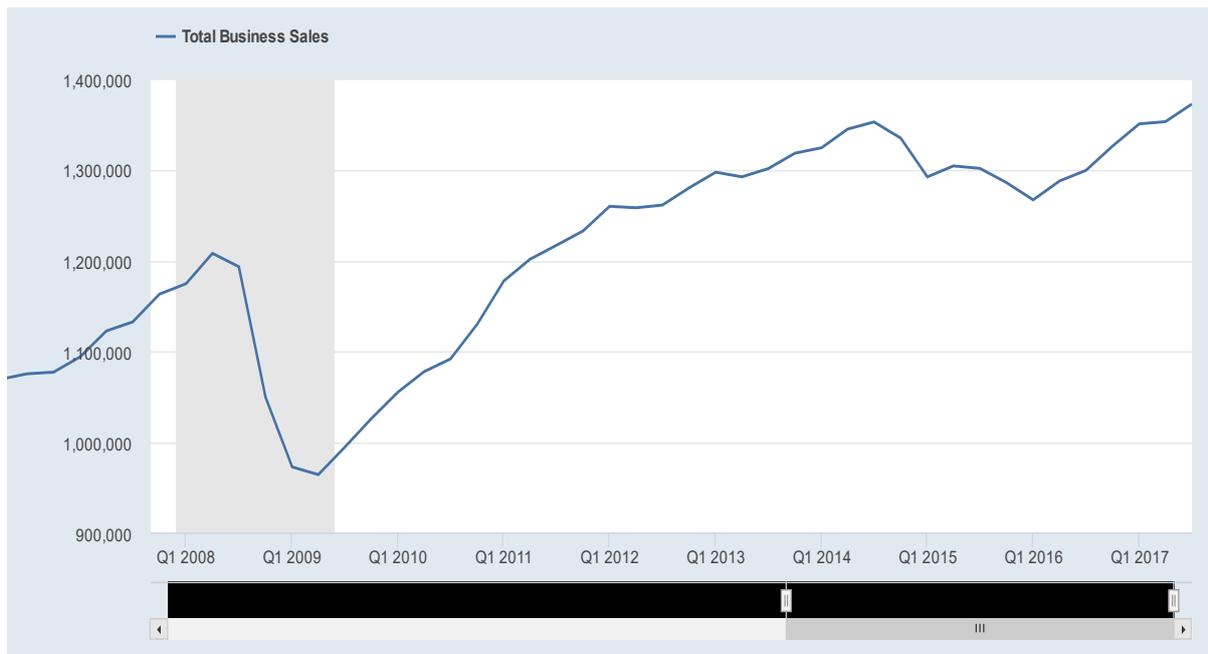


(Sources: BEA Interactive Tables: National Income and Product Accounts, Table 6.16D for profits and 6.15D for net interest. r.o.e = rate of exploitation and r.o.s. = rate of surplus value)

This is the graph used to identify which of the phases within the business cycle, the US economy currently occupies, at least as far as manufacturing goes. The rate of surplus value (green graph) remains below the rate of exploitation (blue graph) which means that profit growth continues to be constrained. Until the growth in the rate of surplus value exceeds that of exploitation, which cannot happen unless turnover accelerates, the mass of profits will not be able to surpass their 2014 peak. The gap between the rate of surplus value and exploitation, which was closing, has now reopened due to the fall in the rate of turnover in the second quarter. Nevertheless, the dissimilar rise in both rates has given a gentle impulse to the mass of profits and interest in the second quarter so that it now sits equidistant from both the peak in 2014, and the trough in 2015. In sum, the animation of the US economy is rising but at a slower rate. However, until it surpasses the profit peak in 2014 it will not transit from the phase of rising animation to the phase of prosperity, though to be sure, the stock markets are behaving as though it has.

This is confirmed by the movement in total business sales presented in Graph 5. To remind the reader, total business sales is the combined total for all manufacturing, wholesaling and retail sales. Together they amount to over 50% of total sales in the economy. As sales form the alpha and omega of the circuit of capital, such a large volume of sales is a good indicator of the underlying health of the economy. Though sales rose 1.5% above their 2014 peak in nominal terms during Q3, adjusted for inflation they were still 4% below this peak, hence still within the phase of rising animation.

Graph 5.



(Source: Table (TOTBUSSMSA) Federal Reserve Bank of St Louis)

The beast will prove to have no FAANGS.

The FAANG group of corporations (Facebook, Apple, Amazon, Netflix and Google) account for nearly 15% of the value of all corporations listed on the S&P 500 currently. They also account for 30% of the increase in the overall “value” of S&P shares this year. The largest of these five corporations and the most “valuable” is Apple, with speculators salivating at the prospect of it becoming the first \$1 trillion corporation in history.

Does Apple deserve this accolade? It released its final quarter earnings (Q4) on the 2 November which as usual, exceeded expectations as required by the reporting ritual. While it is true that share prices are forward looking with Apple raising its outlook for the current quarter, the movement of its share price is not justified by the quality of its earnings. All figures analysed below belong to Apple’s “Condensed Consolidated Statements of Operations and Balance Sheet (unaudited)” published on the 2nd November 2017 (and can be found by googling Apple Investor Relations). The data compares the twelve months ended 30th September 2017 to the 12 months ended 24th September 2016. (Again, why Apple varies its year ends is unknown, but it does affect comparisons as the difference is less than a full week.)

Net sales increased by 6.3% in Dollar terms while the cost of these sales went up 7.4% resulting in a rise in gross profits of 4.7% for the year from \$84.263 billion to \$88.186 billion. After deducting R&D and SGA (selling, general and admin) costs the rise in the all-important operating income is reduced to a rise of only 2.2% from \$60.024 billion in 2016 to \$61.344 billion in 2017 despite the uplift from earnings in the last quarter. This barely covers inflation.

If we now turn to cash flow, the financial situation deteriorates further. Cash flow falls from \$65.284 billion in 2016 to \$63.598 billion in 2017, a fall of 3.4%. Cash flow would have fallen much further were it not for the increase in “bills payable” of \$8 billion. This is nothing more than Apple leaning on its suppliers over payment terms. It is also likely that some of Apple’s sales are overstated because bills

receivable, i.e. credit given to customers, increased by \$2.5 billion. Adjusted for these variations, actual cash flow falls by 10% which is a very significant amount. Nor is this cash flow reflective of the teething expenses experienced by the new X phone, whose additional costs are dumped on assemblers and component manufacturers. Foxconn, which derives 50% of its revenue assembling iPhones, saw its profits tumble 39% (the largest fall since 2009) due to rising costs associated with the introduction of the X phone and lacklustre iPhone 8 sales. (Reuters 15 November)

If we extend the analysis to 2015, the high point of Apple's sales and profitability, the financial picture deteriorates further. Total revenue falls from \$233.715 billion in 2015 to \$229.234 in 2017 and gross income from \$93,626 billion to only \$88,186. Adjusted for inflation, this represents a fall in income of 10%. Even if Apple hits its target of \$85 billion in revenue this quarter driven by Apple X sales, this will yield a gross profit of £32.3 billion based on a 38% gross margin. This is comparable in real terms to what it earned in the final quarter of 2015 (\$75.9 billion revenue with a 40.1% margin). Despite this paltry increase in income, its shares are up 50% between November 2015 and today.

Up to the third quarter of 2017, the annual volume increase in smartphones sold world-wide increased by 2.7%. Apple increased shipments by 2.6% including Apple's launch of the iPhone 8 series. IDC projects only a 1% increase in volumes this quarter. However, the value of smartphone sales increased by a bigger margin because of the launch of more expensive models by Apple and Samsung amongst others. In a market where volume growth is marginal, a reliance on pricing is an invitation to a price war. Here lies the importance of Apple's X phone. Does it rise above a mature market or will it fall victim to it?

The X phone has received rave reviews for looks and performance. It is not a phone without flaws and it takes two days to master its cumbersome functionality. Only time will tell whether this fragile, expensive to repair phone, can command its elevated price and whether Samsung will now launch a price war. Samsung is in a better position to win such a war because it manufactures many of the key components used by Apple including the screen, which is why the cost of materials used in the X phone costs \$370.25 versus \$302 for the comparable Samsung phone (IHS Markit).

Smartphones have reached an apogee. Their continued growth requires more than good looks and a sharp screen. Although addictive and behaviour changing, smartphones have become mature products. Apple's X phone improves on the iPhone 8, but besides cosmetic changes, only its face recognition is novel. Until and unless smartphones become talkphones able to converse freely with their users, the kind of growth in phones seen earlier will not take place. (The popularity of Amazon's voice controlled Echo and now Echo Show points to the future.) Nor will augmented reality help. It is a diversion to what must be the next step, finger free phones which is beyond the reach of the X phone. In this sense, the pretty X phone is not the beginning of something new, it is the glittering end of something old.

ADVERTISERS WISE UP.

In the past year, major brands have called into question the notion that mass marketing necessitates a scattershot approach to digital advertising. Programmatic's promise to deliver huge scale at cheap prices has brought to the forefront the tension between scale and vetted quality and transparency. Now stories of brands pulling back on programmatic with little to no downside for their businesses add a greater sense of urgency to addressing issues that have long plagued the ad tech industry. (martechtoday.com/procter-gamble-digital-ad-spend-cuts-adtech-response-202003) So said Ginny Martin of Martech on the 7th August 2017, when commenting on the world's biggest advertiser,

Procter and Gamble slashing of their digital advertising spend by \$140 million. And where Procter and Gamble treads so follow the other large advertisers.

Besides Apple and Amazon, the other FAANG corporations rely on advertising. I have argued that Facebook, Twitter, Alphabet and all the other Tech darlings which are dependent on advertising are living on borrowed time. Their share price is based on their ability to monopolise advertising on the pretext of providing more focused advertising on a medium where consumers spend more time than traditional outlets such as newspapers.

There is a huge flaw in this assumption. The users of laptops and smartphones are not attracted to these adverts, they resent them and find them obstructive. It is bad practice to force-feed consumers and it always ends badly. This is confirmed by the exponential rise in people using add-blockers, up 34% in 2016 to 69.8 million in the U.S. Despite this significant rise by U.S. users of add blocking, the proportion using these add blockers still lags behind world-wide trends which stands at 615 million, a rise of 30% in 2016, and which is expected to cost \$27 billion in lost advertising revenue by 2020. (Netimperative.com 7th June 2017) Add blocking is not only a quantitative issue but a qualitative issue as well. The 22% of US consumers most likely to resort to add blocking tend to be the better paid and more professional, precisely the ones that the advertisers are seeking to engage with. Currently providers are fighting back threatening to charge users for services hitherto free when they use add blockers.

It is not only a question of monopolising advertising but of outright fraud. The number of clicks is open to abuse in several ways. Actual overestimation by the providers or the use of bots to click on to the adverts. At least with newspapers, advertisers knew how many papers were being bought and by whom. Like all these matters of fraud, the extent of this fraud will only surface once this form of advertising has crashed.

In the meantime, advertisers are beginning to hit back by withdrawing digital add spending and seeking better auditing of clicks together with better positioning of their adverts. Should they succeed this will raise both the cost of digital advertising platforms while reducing their revenues. The days of milk and honey are coming to an end and with it the sky-high valuations of these corporations.

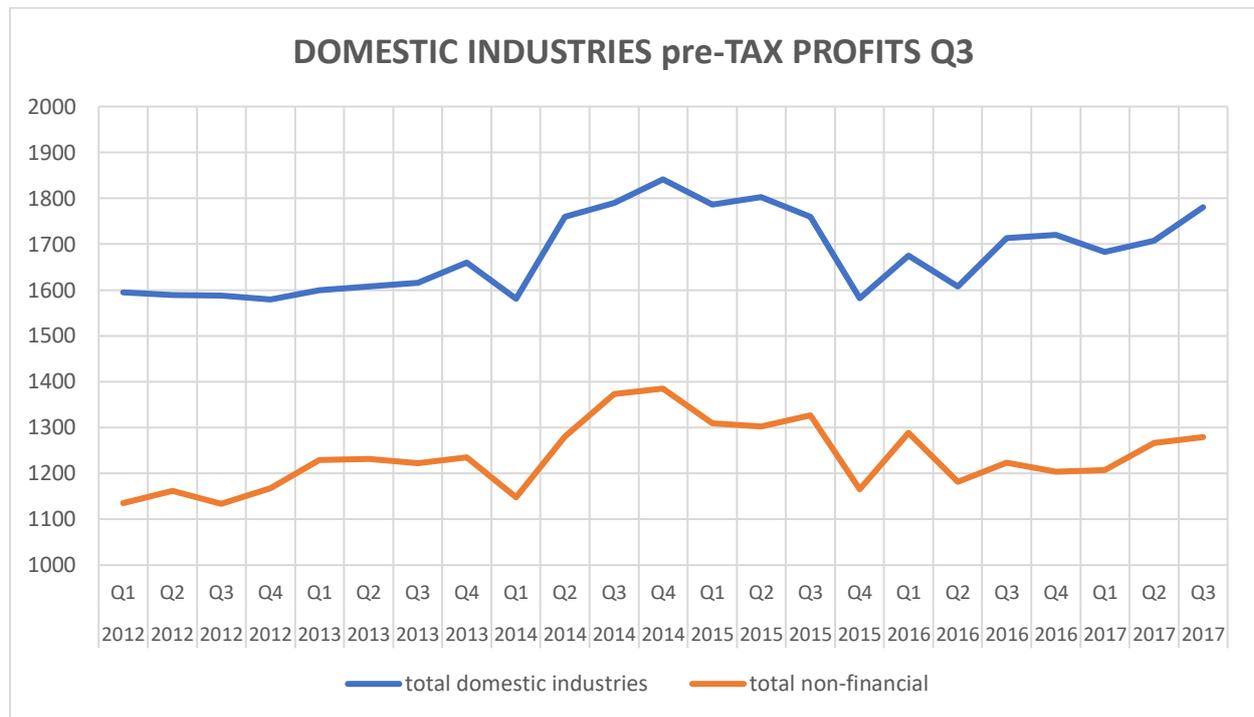
There is a final consideration. These mega tech firms are killing the goose that lays the golden egg. By underpaying providers of news and content, the quality of inputs will fall and in the end so will the attention of viewers. Like all the monopolies before them, they are charging more for increasingly inferior products. In the end these corporations will be squeezed by the need to pay a market rate for input while facing falling advertising revenue. Behind the storm of fake news, the real news is that the quality of reporting is deteriorating because of the behavior of the monopolies themselves.

The movement in the share prices of the FAANG group of corporations distracts from the fact that non-financial corporate profits are stagnant. On the 29th November the BEA released their preliminary corporate profits. These preliminary figures are presented in Graph 6 below. Domestic Industry is chosen to eliminate the influence of foreign profits earned by US corporations which favours a couple of dozen larger corporations including the oil majors. It is a more accurate reflection of profits generated by the US economy itself.

Nominal non-financial profits increased by only 1% quarter on quarter. This weak uptick was anticipated by the deceleration in the rate of turnover in Q2 (manufacturing provides half of all non-financial corporate profits). The annual rise was 4.5%, or 2.3% in real terms adjusted for inflation. In real terms, total non-financial profits remain trapped 14% below its 2014 peak while total corporate

profits which includes the financial sector, is still 9% below its peak. In the meantime, share prices as measured by the S&P 500 are up by 23% adjusted for inflation (macrotrends).

Graph 6.



(BEA interactive Data, National Income & Expenditure, Table 6.12D)

Stripping out the profit growth of the FAAANG group of corporations and the oil majors, would have resulted in no profit growth quarter on quarter (even when adding back the extraordinary hurricane losses suffered by insurance corporations). However, as has been exposed, the profitability of the FAANG group of corporations (excluding Amazon) is shallowly based and their business model is unsustainable in the longer run.

Luxury goods consumption versus investment.

Currently the foremost debate in bourgeois economics is stagnant productivity. In Britain, the government is pushing out an industrial policy to support and encourage corporations to improve productivity. Like all capitalist classes on the defensive who are forced back into the arms of their state, the Tories are abandoning their dogmatic attachment to neo-liberalism. What is interesting about these debates, is that when the capitalists discuss society wide issues, they often let slip truths they vehemently deny at other times. Hence, in their unguarded moments they admit that the wealth of the nation can only increase if the number of workers increase and they become more productive. This is nothing more than a tacit admission that workers are the only source of value.

There are several reasons why productivity is stagnating. This posting will deal with only two. The issue of realisation and the problem of expanded luxury goods production.

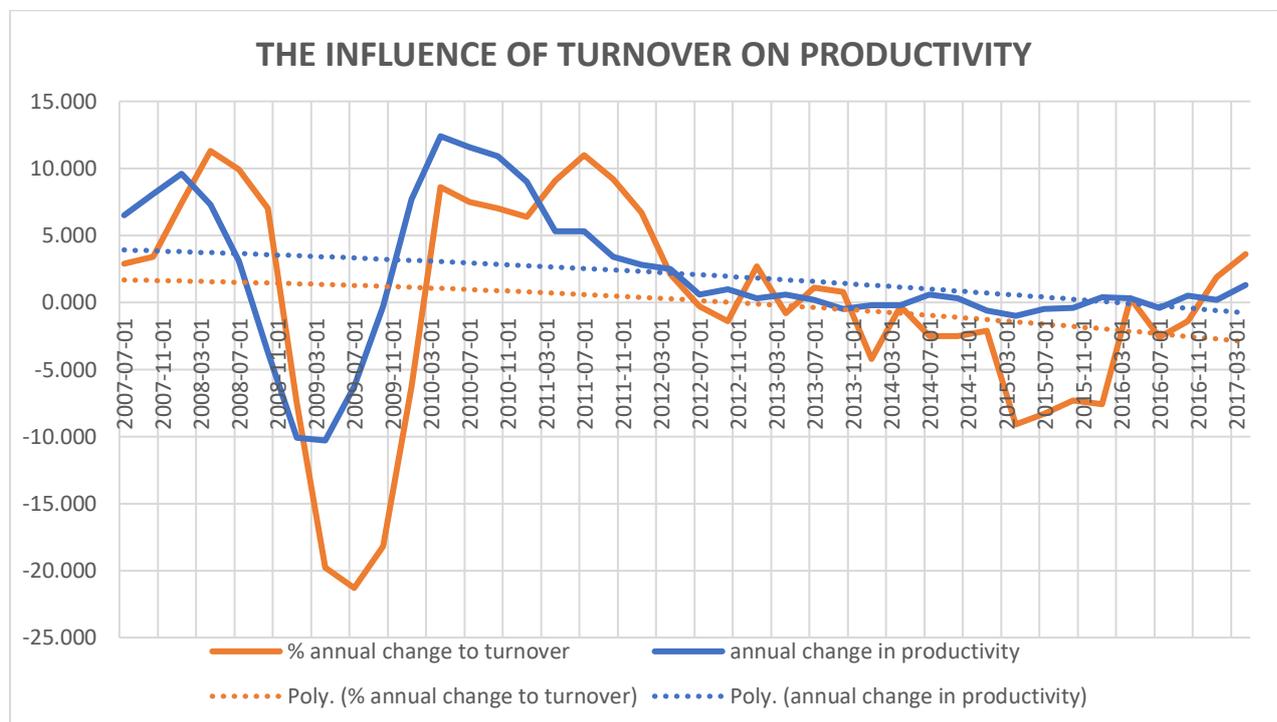
For the first time a graph is provided which links the issue of turnover to the issue of productivity in order to highlight the issue of realisation. In the expansive phase of the business cycles, the rate of turnover accelerates in line with improvements in technique. A given number of workers will produce a quantum of goods in each turnover period. Assuming technical productivity does not change, it means that the more periods of turnover which can be squeezed into a calendar year, the more goods

which can be sold annually. Here the word, sold, is used deliberately. Productivity does not only depend on production, but on this production being sold. In other words, the turnover cycle combines the production and circulation phases as one.

Therefore, if the turnover period elongates, so that fewer circuits are squeezed into a calendar year, then annual sales will fall (everything else held constant) in both volume and value terms. This fall has nothing to do with the underlying technical conditions of productivity, merely that the potential output can no longer be sold annually in the same way. This elongation is normally associated with an increase in unsold stocks. Alternatively, to reduce unsold stock, prices are reduced to clear it. Whatever the case, whether it is a lower volume of sales, or because of price reductions, a lower value of sales, total sales fall.

As total annual sales fall because of adverse market conditions, axiomatically, so too will productivity, because the value of sales is the numerator in the calculation of productivity. Productivity is the price of annual sales (adjusted for price movements) divided by the number of workers or hours that have produced these sales. This being so, there should be a correlation between the acceleration and deceleration in turnovers and the movement in productivity because of the effect it has on both the value and volume of sales. Such a correlation does exist and is demonstrated in the graph below.

Graph 7.



(Sources: FRED Table PRS30006091 for productivity, BEA Interactive Tables GDP-BY-INDUSTRY for turnover. Current quarter compared to quarter of the previous year.)

This important graph warrants detailed scrutiny. Firstly, the trends. We note that the trend for turnover sits below the trend for productivity and it does so for the duration of the period covered. The fact that they fall in tandem cannot be dismissed nor ignored. This suggests that the fall in the rate of turnover acts as a drag on productivity. When both trends sit above 0.000, productivity growth remains positive. When the rate of turnover decelerates below 0.000 productivity tends to fall below 0.000 as well, but with a lag. There is only one exception, in 2011 when turnover picks up, but productivity growth does not, though it remains around 5% (still at an elevated level).

Most importantly, since 07/2011 the rate of growth of turnovers has fallen consistently only reversing in the second half of 2016. Similarly, there has been a fall in the growth of labour productivity over the same period. It is widely recognised that productivity has fallen below trend since the 2008 crash. It could very well be the case that the main determinant for this is the weak or even falling growth in turnovers between 2011 and 2016.

Moving away from trends to volatility. The increase or decrease in the rate of turnover is more volatile than changes to productivity. While its peaks mimic that of productivity, its troughs are deeper. Nor is there tight synchronicity. There are lags of one to two quarters between the two. Generally, however, if the volatility in the turnover series is smoothed over two periods, for example in 2012 and 2013, then the rises above and the falls below the productivity graph tend to be self-compensating.

The absence of a tight correlation is to be expected. Productivity is a function of two variables, the price of sales and employment. Nor are they indissoluble. For example, technical changes in production may lead to a reduction in employment, while sales measured by price continue to rise. Changes in market conditions are only one factor in employment decisions. Nevertheless, it is clear that despite a relatively loose synchronicity, the general movements in the two graphs are complimentary rather than contradictory.

If it is the case that turnover is one of the two great determinants of productivity, then that is confirmation of the distinction between the production of value and its realisation. Amidst falling turnovers, annual sales can only increase if the volume of sales in each turnover period increases proportionately. However, it is generally the case, that falling turnovers at worst, or stagnant turnovers at best, are symptoms of a market with faltering demand. Such a market is price sensitive, and when commodities are price sensitive, they seldom sell at their full price. This may explain why inflation for goods has been so low. In the 9 years, from the 2008 peak to the third quarter of 2017, general prices for US manufacturers has risen only by 2.6%. Currently prices have actually fallen from their 2011 level, the time when the world economy revved up after the 2008 crash. (Source: FRED Table PCUOMFGOMFG)

The second reason for the slow-down in productivity is the rise in luxury goods production. It is not an unconnected fact that a rise in luxury goods manufacturing is associated with a fall in investment. The capitalist class cannot eat their cake and invest it at the same time.

In Volume 2 of *Capital*, Marx deals with the transition from simple reproduction to expanded reproduction. He demonstrates that the only way to move to expanded reproduction, or for reproduction to accelerate, is for the capitalist class to reduce their unproductive consumption of part of the surplus of society enabling this to be ploughed back in the form of investment. In other words, the capitalist class, as owners of the surplus of society, can do one of two things with it. They can spend it on themselves or they can invest it, but they cannot do both. The more they spend on themselves and here we include their indulgent gambling, i.e. speculation, the less that is left over to invest. Let us be quite blunt, what the capitalists spend on themselves, like armaments (Marx), may as well be thrown into the sea.

The less they invest, the more slowly the economy expands, or conversely, the slower will be the rise in productivity. A concrete example will demonstrate this. Earlier we spoke about smartphones. According to *STATISTA*, the global sales of smartphones in 2016 amounted to \$434.5 billion. In the same year *STATISTA* estimated the total value of smartphone apps to be \$88.3 billion. Finally, if we use the figures provided by T Mobile in the USA in their latest quarterly "Investor Handbook", service revenue was \$7.6 billion. Within that total, the cost of providing the phones themselves came to \$3.2

billion, a ratio of 70:30. As many users buy their own phones it is likely that the split is closer to 60:40 between the price of services (the monthly plan or pay as you go) and the price of the phones themselves. This being so, the total price of handsets, the apps and the services on which the phones depend, amounted to \$1.04 trillion (equal to the sales by the pharmaceutical industry but below the \$2 trillion automotive industry). If we were to assume that 20% of that amount was consumed as luxury goods by the capitalist class and their retinue (i.e. those outside production) this would amount to £200 billion in 2016.

It is useful to contrast this amount to the most significant industrial component required to raise labour productivity, industrial robots, either working alongside workers or displacing them. The global industrial robot market was valued at only \$12.3 billion in 2016 (International Federation of Robotics), to which must be added software and associated engineering costs bringing the total to over \$45 billion (There are higher estimates). This is less than 5% of the value of the smartphone market.

Smartphone production belongs in the main, to Department 2, designated by Marx as the department providing articles of consumption. Robots belong to Department 1, designated as the department providing means of production. To expand production in a modern economy, where productivity is key rather than the mere addition of labour power, Department 1 must expand. Only it provides the means of amplifying labour power both quantitatively (increasing the number of machines) or qualitatively (more advanced machinery). If only 5% of the money spent on smartphones was redirected from Department 2B to Department 1 to expand the production of industrial robots of all descriptions, then the number of robots being produced in the world would double. If the entire \$200 billion was invested in robotics the number of robots added each year would increase five-fold.

Sales of I.T. have increased, and it is accepted that the I.T. industry is the leading, most innovative industry today. Its global sales in 2016 was worth \$3.8 trillion (SELECTUSA). Of this amount, 30% is accounted for by smartphones, their services and infrastructure, together with computer games (\$99.6 billion Newzoo) and consoles. This does not end the list of consumer products that constitute the I.T. industry. We need think only of all the electronics in cars today which baffles and distracts drivers and increases the frequency these cars need to be repaired. It is no coincidence that the largest corporations in the world are those providing consumer electronics and associated services. Hence while Apple corp. thrives, General Electric wilts.

It may very well be the case that half of I.T. goes into consumer electronics. Some of these electronics distract workers at work (peering at their phones) and keeps them awake at night, all of which conspires against productivity. Further, that while at work, unregulated corporate communications add to the burden of work without increasing output. Altogether, the I.T. revolution has its downside as far as productivity goes and this is being increasingly recognised by economists and management. As the PEW report "Social Media and the Workplace" published in 2016 showed: 77% of respondents stated they disregarded corporate policy on social media use while at work.

On balance, it appears that most of the gains of I.T., other than A.I., have been exhausted. Most of the efforts of Silicon Valley continue to be devoted to producing Apps, many of which will end up stimulating consumers rather than speeding up production.

Outlook.

When viewing the various financial websites and blogs, one observation stands out, there has been a sudden and sharp increase in the number of banks, investors and analysts warning of an end to the bull run. In addition, the discussion of "bond inversions" is also growing in intensity as the gap between 2, 10 and 30-year bonds shrivel. Over the course of this week, despite the growing optimism of a tax

deal by Congress, FAANG share have oscillated violently as some investors have taken their profits while others continue to buy on the dip.

The US economy continues to be driven by its stock exchange, rather than the other way around. The question is posed: what happens when the stock exchange no longer drives the economy? The answer is simple, what little real growth there is, evaporates, and all the debts fall due.

Of note is the discrepancy between the consumer surveys that target the higher earners who benefit from the buoyant Stock Market and the other bubbles, and the rest of society. The Michigan Consumer Sentiment Index is currently at a decade high. Yet two different, but more comprehensive contemporary surveys, found that nearly two thirds of those living in the US felt their circumstances and that of the country was at rock bottom. (*Americans are Officially Freaking Out*, Bloomberg, 1 Nov 2017) The second survey also found that financial concerns, despite the so-called rise in employment, has risen from 51% of the population in 2015 to 62% in 2017 (American Family Survey 2017). The final statistic that sums up this festive season reveals that nearly 30% of millennials have yet to pay off last year's Xmas presents. Truly a picture of two worlds.

Two things are breaking down which have implications for the world economy. One in the US and one in China. In the USA the placid conditions on the stock markets are giving way to volatility. The previous lack of volatility is a function of the growth of passive investing in the form of ETFs. ETFs have become popular because they have performed just as well as active funds which seek to pick winners, but without the high commissions. The fact that tracker funds, i.e. passive funds do just as well as active funds is proof positive that most speculative profits have nothing to do with judgement, but everything to do with the state of the economy. However, if dialectics teaches us anything, it is that things turn into their opposite and when they do, they do so convulsively. ETFs may have calmed the surface of the markets by their weight, but in the event of a market crash, they become the new sub-prime as investors head for the door. It is for this reason that ETF should stand for: Every Trader Fleeced, or Every Trader Flees, and when they do, the stampede will capsize the markets.

In addition, there are emerging tremors in China following the conclusion of the Congress there. Bond yields in China are testing the psychologically important 4% interest rate level despite the PBC repeatedly pumping in additional liquidity into the market. This has sent share prices into reverse. The price of hards, primarily base metals, have also reversed their recent bull run over fears for the Chinese economy. The importance of the Chinese economy for the world economy cannot be overstated. China is the world's premier industrial economy, therefore what happens in China does not stay in China. Much of the improvement in the world economy, its synchronicity for the first time since the great crash, is due to the momentum of the Chinese economy in the run up to its Congress. If China decelerates as it is beginning to, then it will wash away the over-optimistic perspectives for the world economy put out by groups like the IMF and the OECD. An excellent overview of current expectations by the OECD is provided by Michael Roberts in his recent posting: *Boom or bust?* <https://wordpress.com/read/feeds/313842/posts/1684210089>

The second important issue is taking place in China. It is the breakdown in the relation between upstream and downstream industries, a relation at the heart of the developmental model of the Chinese economy. Upstream production is dominated by state owned industry (SOEs) who provide infrastructure, power, telecommunications and so on. Their output is designed to nurture downstream private corporations in sectors such as real estate, manufacturing and tertiary (service) industry. Hence building new roads and railway lines gives rise to new cities, which then fill up and give rise to local industry.

However, real estate has fallen into the doldrums with residential sales expected to fall in 2018. The all-important manufacturing sector is slowing down too. The latest data on private investment shows a 25% fall in the annual rate since Q1 2017 to 5.8%. More ominously, secondary industry has fallen to an annual rate of only 3.2% which barely exceeds inflation. Its biggest component, manufacturing is up only 4.1% despite the urgent need to mechanize production. In the mean time private construction is down 20%. (National Bureau of Statistics of China) Car sales in the world's biggest automotive market in October were up only 2% from last year (China Association of Automobile Manufacturers) while in the world's second largest market, the USA, sales are down 2%.

The Chinese Coputalist Party is learning the hard way that the capitalist class is an unruly mob. When economic conditions are good they tend to move like a herd but when things go wrong, they scatter. The CCP refuses to accept the inherent rhythm of capitalist production. Periods of upswing are always excessive and so are periods of downswing. Capitalism grows, not by eliminating these excesses, but because the excessive upswing outweighs the excessive downswing. To bring order to disorder, thousands of independent corporations, each looking out for their own interest, are to be connected by a single nervous system, whose brain is the "Party". The neurons of this nervous system are the party cells in every corporation, regardless of whether they are Chinese or foreign owned.

Since 2011, according to Q1 Yu, deputy head of the Central Organisation Department, who is quoted in the *South China Morning Post*, the number of party units in foreign-invested corporations has grown from 47,000 to 106,000. Indeed, such is the scope and pressure to set up party units, that German corporations through their German Chambers of Industry and Commerce, have threatened to withdraw their investments from China. Their objection is not about these units spying on their workers (state surveillance takes place in every country), it is the fear that these units will interfere with the independence of their managers.

However, the Chinese state will learn the hard way that installing party units in every corporation will not stop the boom bust cycle. During periods of expansion capitalists seek to add to their capital, and during periods of contraction they seek to preserve their capital. That is the instinctive reflex of the capitalist. Seeking to reduce excesses on both sides, that is moderating the addition of capital by fiat to prevent bust and seeking to coax capitalists to invest on the down, will not work. It will simply lead to a stagnant economy without a compass (profit).

It is clear that the world economy is in the phase of rising animation. As Michael Roberts highlights, the expansion taking place is less prosperous than the period leading up to 2008. It is also much more fragile. The sails of the world economy are not filled with the energy of investment, instead the ship is moved by the unpredictable eddies generated by one bubble after another. Today analysts rate 95% of S&P 500 companies as either buy or hold. The last time such a large positive recommendation to own shares was made, was 2008.

Brian Green, 1st December 2017.