GIVING PERSPECTIVE TO THE SIZE AND SCOPE OF THE FINANCIAL SECTOR IN THE USA.

Whenever I read what many Marxists write about the financial sphere as in the comment section to Michael Roberts recent article; *Marx's law of value: a debate between David Harvey and Michael Roberts* the mind drifts to pastures new in which hot air balloons fly. Why hot air balloons in particular? Because they emblemise what is really at play. When looking at these wonderous objects, so colourful in the sky, one is enthralled by the canopy. However, no sooner does one close one's eyes then all that can be heard is the whoosh of their burners, the working end of the balloon.

The canopy or balloon dominates because of its immense size. But on closer examination it is full of hot air. Not only that, but it is the hot air that provides its rigid structure. And it is only full of hot air because of the burners. Before these burners are switched on in the early morning when the dew is still fresh, the canopy lies flat occupying only a fraction of the size and weight of the burner and basket. And yet, until and unless, the canopy is inflated with hot air, it is unable to rise into the air, nor to stay in the air if the burners run out of gas.

This then is the relationship between production (the burners) and the financial sphere (the balloon). It seems that many Marxists are enthralled by the financial sphere, which if one was to look inside, is a thing of air, rather than substance. Their observations are based on a failure to understand the National Accounts which inflate the size of the financial sphere because $M.M^+$ is treated similar to $M.C…P…C^+.M^+$ or $M.C.M^+$ That is to say, the mere exchange of money is treated identically to the two exchanges that typify the production cycle or the cycle of distribution in which value is first produced then circulated. All transactions are treated being equal, as adding value, when only the productive cycle adds value.

Let us examine this in closer detail with recourse to the BEA table "Composition of Gross Output" for 2016 issued on the 2nd November 2017 and which can be found on the BEA interactive site, GDP-by-industry, under KLEMS. This table is very useful because of its detail. (2016 is the most recent year.) It provides Gross Output, Gross Value Added and the Gross Surplus for all the major industries. It is the best table to use to calculate turnover times. Data for 2016 is used throughout as it is the most recent available.

Using the raw data found there, we find that Finance and Real Estate represents 20.6% (line 484) of total private industry's gross output (line 16). Throughout this article we will focus on gross output which is equal to the value of the total sales found in each sector, or what is the same thing, the value of intermediate sales plus final sales. This is a broader survey of the actual number of sales and their value within each sector. Sector data is divided by the gross output for "private industries" which is the whole economy less the government sector (amounting to 12%).

This, 20.6%, a fifth of private activity seems large when we consider that the entire Goods Producing sector produces only 27.9% (line 880). When we look at the gross operating surplus the figures become even more strange. The share for Finance and Real Estate jumps to 39% (line 488) while the gross operating surplus for the entire Goods Producing sector is only 24% (line 884).

This is intriguing and worthy of further examination. It turns out that the bulk of this surplus is not earned by Finance and Insurance but by Real Estate. Together they earn $2.688 trillion (line 488) which is divided into $0.602 trillion for the Finance and Insurance sector (line 497) and a whopping $2.602 trillion for the Real Estate sector. The proportions between the two are 22:78. This $0.602 trillion

relating to Finance only is 36% of the surplus found in the Goods Producing sector, and, compared to the total gross surplus for private industries, it is only 8.7%. Suddenly the canopy does not look so inflated.

Of course, the figure for Real Estate is an illusion, more so than for Finance. There is no need to be concerned that the USA is a nation of Landlords living off rents at the expense of wages, profits and interest. To explain why this is so, we need to turn to Table 7.12 "Imputations in the National Income and Product Accounts" and go to line 154 "Imputed rental of owner occupied housing". In 2016 the imputed rent amounted $1.492 trillion. This is a fictitious figure or what is the same thing, an imputed figure. The BEA assumes this is the rent owner-occupiers would ordinarily pay themselves which they then treat as a live transaction in order that it may be included in the national accounts.

If it was eliminated, it would profoundly affect both the gross output and the gross value added figure for the Real Estate sector. Gross Output and gross value added found in the table "Composition of Gross Output" would both fall, with the latter GVA figure falling from $2.275 trillion (line 548) to just $0.783 trillion pushing the gross surplus down from $2.086 trillion (line 542) to only $0.594 trillion. In terms of percentages the gross surplus figure is no longer larger than the one found in Finance, but smaller, standing at 99% the size of the surplus found in Finance and only 8.6% of the total surplus relating to total Private Industry. Now it is the case that the total surplus for Finance and Real Estate is only 17% of the total compared to 24% for the goods providing sector, or when we adjust the total gross surplus of $6.890 trillion (by subtracting this $1.492 trillion from it), the percentages rise to 22.2% and 30.6% respectively.

With just one adjustment the roles are reversed. The Finance and Real Estate sector with its 20.6% share of total sales and its 39% share of the gross surplus now falls to 15.3% and its share of the surplus to 15.2% (before adjustment of the grand totals). This compares to 27.9% and 24% for the Goods Producing sector using the same unadjusted grand totals.

Of course, there are many more adjustments that need to be made especially in the field of existing property sales both residential and non-residential and in the realm of Finance to account for fictitious profits. However, to untangle these figures we need to go beyond this table to the input-output tables themselves. Suffice to say the size and scope of the Finance/Real Estate sector is much diminished which is a source of relief to us and the Chinese who keep being told how much bigger the US economy is then theirs.

A more important way of representing relative size is to look at the amount of capital each sector employs. Here the formula for capital is working capital plus fixed capital rather than fixed capital plus inventories plus variable capital. Working capital is based on the following formula:

$$\text{Working (circulating) capital} = \frac{\text{Gross output less gross surplus}}{\text{annual rate of turnover}}$$

For more information on the formula the reader is directed to the article where this formula was first discussed: https://theplanningmotivedotcom.files.wordpress.com/2017/09/more-concrete-rate-of-profit-pdf.pdf and for a more detailed elaboration which includes the formula for turnover https://theplanningmotivedotcom.files.wordpress.com/2017/09/academia-turnover-article-pdf.pdf I have also explained why basing the rate of profit on fixed and circulating capital as the denominator is more concrete than the traditional c+v or constant plus variable capital.

In the case of the Finance + Real Estate sector the figures are as follows; gross output when adjusted for the $1.492 trillion in owner occupied imputed rents reduces to $4.371 trillion. When subtracting

the adjusted gross surplus of $1.047 trillion it yields $3.026 trillion which has to then be divided by the annual rate of turnover. (The reasons for this are explained in the Academia article linked above.) The annual rate of turnover, based on the formula GO/GVA +(GO-GVA)/GVA, where GO stands for gross output and GVA for gross value added, is 2.7. Hence working capital of $3.026 trillion is divided by 2.7 or $1.121 trillion. Fixed assets which excludes owner-occupied amounts to $6.767 giving a total employed capital of $7.888. (Table 5.1. Current-Cost Net Stock of Residential Fixed Assets by Type of Owner, Legal Form of Organization, and Tenure Group for the valuation of owner-occupied housing and Table 3.1ESI Current-Cost Net Stock of Private Fixed Assets by Industry)

Turning to the Goods Producing sector, gross output amounts to $7.941 trillion and the gross surplus to $1.653 yielding a total of $6.288 trillion. Turnover amounts to 3.65 resulting in working capital of $1.723 trillion. Fixed Assets are also taken from Table 3.1ESI and amount to $6.657 trillion giving total capital employed of $8.380 (5.4% larger than Finance + Real Estate where the biggest component is tenanted housing). (Note 1. An Excel Table at the end of the article helps clarify these figures.)

Of course, we cannot leave it here without looking at the rate of profit. In the case of Finance + Real Estate it is 1.196/7.888 or 15.2% and in the case of Goods Producing it is 1.653/8.370 or 19.8%. This ratio is odd as it could be expected that they would have an equal rate of profit or that there would be a slight advantage to Finance + Real Estate which is laden with speculative profits. The reason for this arrangement of profit is that we are looking at gross figures not net figures. The price of commodities includes depreciation, that part of the price that belongs to the wear and tear of the machinery, equipment and structures used to produce the new product. Gross figures include this depreciation while net figures do not. The net figure is the value newly added which forms today's wages, rent interest and profit.

It happens to be the case that the Goods Producing sector employs more fixed assets than does Finance + Real Estate. Moreover, the fixed assets in the Goods Producing sector is mainly machinery, equipment and software which depreciates faster compared to Finance and Real Estate where structures (buildings) predominate and which have a longer economic life. Hence the depreciation figure is much higher pro-rata in the Goods Producing sector than it is in Finance and Real Estate. This higher depreciation, when deducted, disproportionately reduces the net surplus in the Goods Producing sector.

Total depreciation for the Goods Producing sector for both corporate and non-corporate entities amounts to $0.785 trillion. As expected the depreciation found in the finance + real estate sector at $0.322 trillion is less than half that found in the Goods Producing sector. (Table 6.22D. Corporate Capital Consumption Allowances by Industry + Table 6.13D. Noncorporate Capital Consumption Allowances by Industry). If we deduct the depreciation obtained from Tables 6.22D and 6.13D, to get net rates of profit, these rates converge:

Goods Producing: $\frac{(1.653 - 0.785)}{8.380} = 10.4\%$ (all figures in trillions of dollars)

Finance and Real Estate $\frac{(1.196 - 0.322)}{7.888} = 11.1\%$

(rate of profit = net surplus/fixed + circulating capital)

We now find that the gap between the two is greatly reduced. To some, this proximity of profit rates will be unexpected. After all the headlines always describe the huge speculative profits that rain down in the finance sector together with the banking bonuses that accompany them. However, headlines can be misleading. For example, at $45.7 billion, Apple's 2016 net income was nearly double the $25

billion in bonuses paid that year to New York bankers. This is only one corporation. It is not by accident that all the richest men and women in the world, with a few exceptions, are not bankers but those who have made their fortune in production or distribution.

To others versed in the analysis which Marx undertook, where he elaborated the law governing the equalisation of the rate of profit and its relation to the rate of interest, the closeness in the respective rates of profit is not unexpected but a welcome vindication of Marx's hypothesis. If a huge gradient existed between sectoral rates of profit, then capital would cascade down this gradient. All industrialists would turn into bankers, but as Marx pointed out in Volume 3, demand and supply would ensure that this did not happen because competition would force down the rate of interest collapsing the rate of return for the banks (Volume 3, Chapter 23, page 501 Penguin Edition) This is not to say that the gradient is stable. At the end of the industrial cycle, but before the slump, the gradient increases, not because finance becomes more profitable, but because industry becomes significantly less so. There is then a cascade leading to a speculative frenzy.

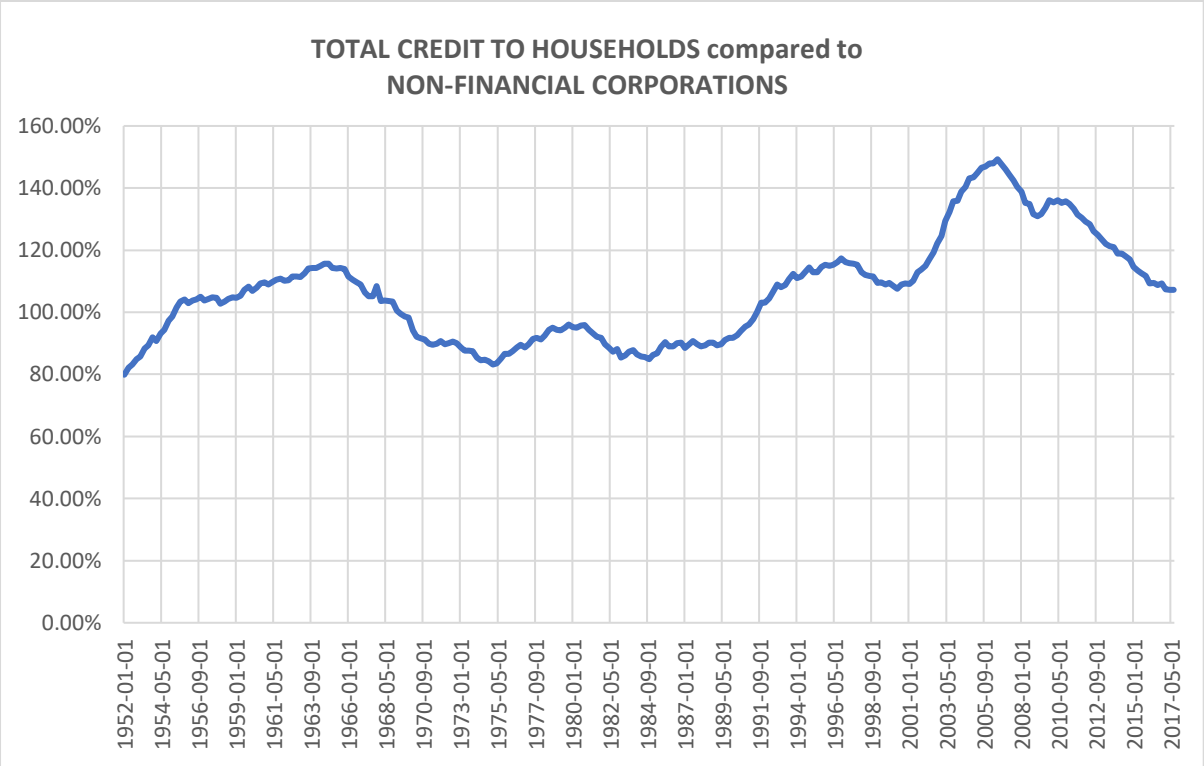
In conclusion, a few qualifications are in order. The finance sector and real estate is populated with a higher density of fictitious profits which explains the higher rate of profit. Also, remuneration (compensation) is skewed to the higher end in Finance and Real Estate and this will affect both the resulting gross and net surpluses on which the rate of profit is based. Finally, the rate of turnover is compromised in the Finance & Real Estate sector because of a higher incidence of duplication. But these are minor factors. The major consideration is that the rate of profit in Finance and Real Estate is not twice that of Goods Producing, or even half as high, but proximate, or average for the economy.

The changing balance of power between industrial and banking capital.

I have argued a number of times that the advent of globalisation altered the relation between the banking and industrial sectors. Industrial corporations got bigger and more concentrated (the multi-nationals) but above all their liquidity grew exponentially. The size and liquidity of these corporations robbed the banks of their biggest customer. When these corporations needed additional funding their size and standing meant that they could issue debt directly in the wholesale markets thereby by-passing the banks.

This was a new development which forced the banks to exploit the retail and property market. By retail market we mean the consumer market comprising credit card loans, student loans, car loans, unsecured private loans, and so on. By the property market, we mean mortgages and secured loans to both the private and corporate sector. Graph 1 below shows the explosion in consumer credit and mortgages leading up to the 2008 crash. It compares the amount of credit granted to households as a percentage of the credit granted to non-financial corporation. What is noteworthy is the 40% jump in consumer credit versus corporate credit up to 2008, at a time when corporate credit was itself growing. It is also worth noting the subsequent reversal which has been primarily due to the relatively faster growth in corporate debt since 2010.

Graph 1.



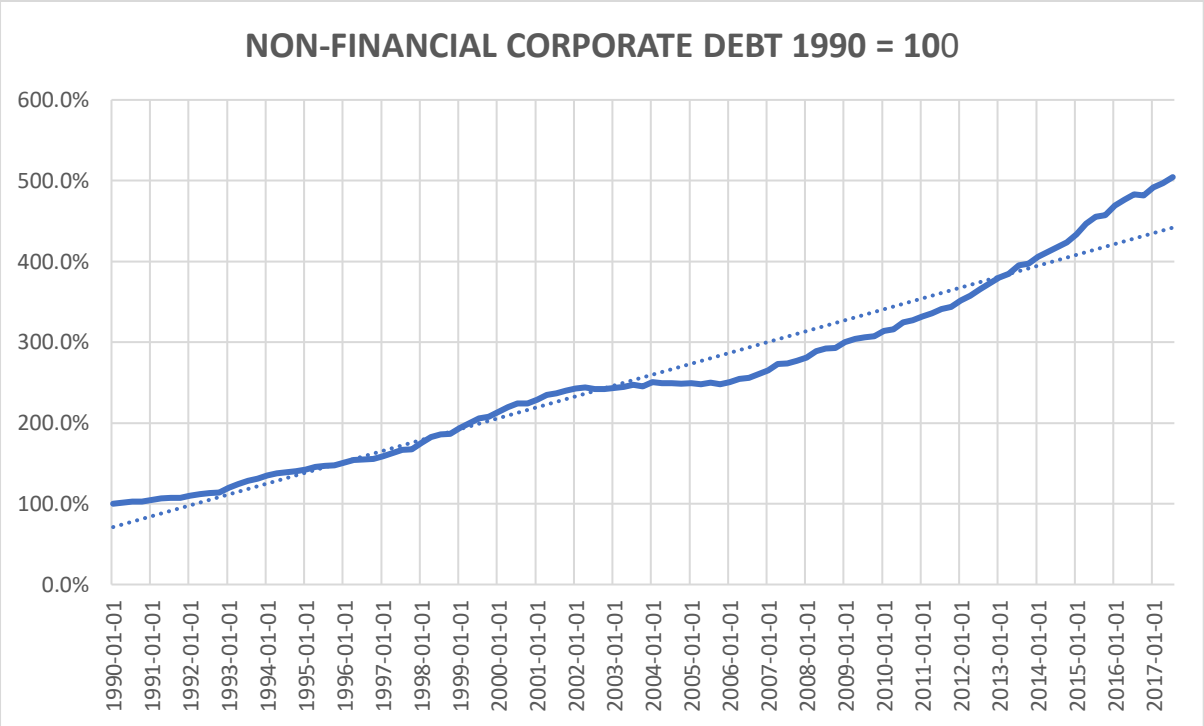
(Source: CRDQUSAHABIS Total Credit to Households and Non-Profit Institutions Serving Households, Adjusted for Breaks, for United States, Billions of US Dollars, Quarterly, **divided by** QUSNAMUSDA Total Credit to Non-Financial Corporations, Adjusted for Breaks, Federal Reserve Bank of St. Louis.)

What concerns us here is the peak in 2007 of 149%. In other words, by 2007 out of every dollar loaned by the banks 60 cents was going to the retail sector and only 40 cents was going to the non-financial corporate sector. The bulk of that lending was on mortgages. By 2007 two thirds of lending consisted of mortgages to both to the private and commercial sectors. Today that figure is under half or 48% (Federal Reserve Table H.8, page 4, covering February 2018).

It was therefore predictable that the financial crisis would break out in the mortgage world, especially when these mortgages were further leveraged by all manner of derivatives. That the crisis would break out in consumer credit, expressed not the strength of the banking system, but its weakness, in a global economy where the larger corporations met their investment needs from their own cash, or if this was insufficient, by raising funds in the wholesale markets.

Today of course the picture is different. The more rapid indebtedness of the non-financial corporate sector means the next financial storm will be centred there, especially in the sphere of junk bonds, or highly leveraged hedge funds and contractors. Up to now, the interest rates paid by these entities, often with covenant lite articles, was more reminiscent of investment grade rather than speculative grade. The recent and rapid growth in corporate debt is shown in Graph 2 below.

Graph 2.

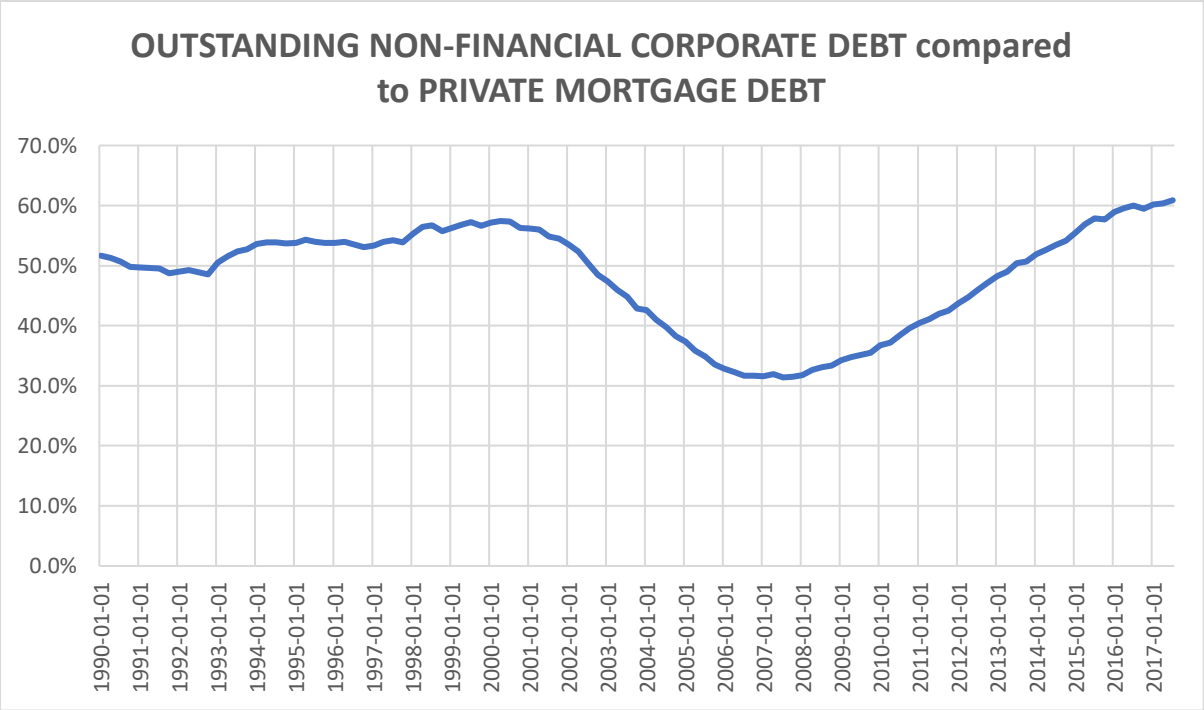


(Source: Federal Reserve Bank of St. Louis, Table NCBDBIQ027S Nonfinancial corporate business; debt securities; liability, Level, Quarterly, Not Seasonally Adjusted.)

Except for a levelling off in 2006, corporate debt did not stop growing during what has been described as the biggest financial crash since WW11. From this graph there is no indication of the 2008 financial crisis. This is due to two facts. Interest rates were abnormally low throughout the crisis and it was not centred in the non-financial sector. However, due to the fact that zombie corporate debt was not purged in 2008 nor in 2015, has left a legacy of bloated debt sensitive to the slightest movement in interest rates.

Another way to represent the growth in non-financial corporate debt is to contrast it to private mortgage debt, the single biggest debt block after government debt. The graph shows how big corporate debt is as a percentage of non-corporate mortgages. Private mortgage debt at around $10 trillion is currently still much larger than corporate debt at around $6 trillion, but the ratio of corporate debt has doubled from 32% in 2007 to 61% currently. It would be wrong to assume, however, that growing corporate debt is associated with growing investment. Only a small part is, the rest has gone on non-productive purposes such as share-buybacks.

Graph 3.



(Source: Federal Reserve Bank of St. Louis, Table NCBDBIQ027S Nonfinancial corporate business; debt securities; liability, Level, Quarterly, Not Seasonally Adjusted **divided by** HHMSDODNS Households and Nonprofit Organizations; Home Mortgages; Liability, Level, Billions of Dollars, Quarterly, Seasonally Adjusted.)

A final consideration is this: how much income do the largest corporations with the largest cash holdings earn via their treasury departments, and what percentage is this of their operating income? (Income derived from their regular activities) Much has been made recently that the cash-rich larger corporations obtain a significant amount of income form the investments funded by this cash. The actual rather than the assumed figures are easily obtained by visiting each company's investor relation website. Contrary to the figures bandied about, generally in the double figures, their financial income is actually quite small. In descending order for the big 5; Apple 4.5% (2745/61344), Microsoft 3.7% (823/22326), Pfizer 3.2% (1315/41306), Facebook 1.9% (391/20203) and Alphabet 1.5% (291/19360) (2017 data) The first figure in brackets is "other income" and the second is "operating income" Operating income is sales less the cost of these sales. None is over 5% and the weighted average is 2.98%. Not that significant.

How big is Goods Producing?

The other side of the equation is that while Finance is overstated, the Goods Producing sector is understated. Marx was accused of only considering tangible objects as capable of being commodities. Products of labour that were immediately consumed (such as an opera singer whose song is consumed as soon as it is uttered) or without taking on a new form such as nursing, could not be considered a commodity. This is of course nonsense. Marx never made this distinction.

The distinction is made by the statistical bureaus when they draw up the national accounts wherein they divide production into goods and services. The result is that the Services sector has expanded and the Goods Producing sector has shrunk. The stupidity of this arbitrary division is easily identified. When a coffee machine is produced, its production belongs to the Goods Producing sector. However, when it is used to make coffee, say in Starbucks, the value of that coffee belongs to the service sector.

As the value of the coffee that machine produces in the hands of a Barista far exceeds the value of the machine, it ensures that the services sector appears larger than the goods sector. Similarly, with utilities. This sector is not included in Goods Producing, because electricity is consumed immediately. However, if new high-powered batteries capable of storing large quantities of electricity are produced, so that electricity is stored on site, would that element of electricity production be considered part of goods production because it is now tangible? A final consideration is computer hardware and software. Hardware production is part of goods production while software is part of the services sector.

These divisions are now presenting problems for categorising cars. As car production has become increasingly automated, and the drive train, chassis and shell cheaper, so to increase their value, they have been unnecessarily stuffed with electronics, which also means more visits to garages for repairs. Car production is part of goods production. But today a large part of the car is software. In more expensive cars, the internet of things will be incorporated, allowing for the car to be diagnosed remotely for example or tuned remotely. Will this aspect of the car be categorised as part of the service sector? Who knows but it does give a new meaning to the term, convertible car.

The real distinction is not between the Goods Producing and service producing, but between the productive and unproductive sectors. The former produces value and profits while the latter is paid out of the revenue (transferred value) produced by the former. For a more detailed discussion on productive and unproductive labour please follow this link

https://theplanningmotivedotcom.files.wordpress.com/2016/03/diagram-and-commentary-2-specie-unproductive-workers-pdf1.pdf

What we are dealing with is a problem of presenting the accounts, not a fundamental flaw. As long as what is added to the unproductive sector is deducted from the productive sector via intermediate sales or inputs, then duplication is avoided. The problem occurs only when intermediate sales are absent, or when intermediate sales are moved to final sales (as in the case of R&D and in-house software) or final sales are invented as in the case of imputed rental income for owner-occupied housing or when the mere exchange of money is taken as a value adding or finally, when production for use is taken as production for exchange which most often occurs in the household sector with servants.

Once this is understood and identified, the System of National Accounts is useable. In this regard were we to strip out these omissions, duplications, imputations etc. it becomes possible to gauge the size of the commodity producing part of the economy versus Finance and Real Estate. All we have to do is to strip out the household and charity sectors, legal services, management of companies and administrative services together with two-thirds of R&D and we will have captured the bulk of unproductive labour outside Finance and Real Estate.

It may be argued that within the Goods Producing sector unproductive labour is to be found. Yes, it is! But what we are comparing here is the value of final sales, that is the value that is produced by only productive workers. This is the value that is transferred from the factory to the office, from the trading account to the profit and loss account. The value of final sales does not change because the wages of unproductive workers is deducted in the Profit and Loss Account. All that happens is that gross profit is reduced to pre-tax net profit.

On this basis the following needs to be deducted. Using the Composition of Output table, legal services amounts $0.332 trillion (line 601), Management of Companies $0.634 trillion (line 628) and Administrative Services $0.846 trillion totalling $1.812 trillion. Turning to Table 1.3.5 in the section

GDP & Personal Income, the figure of $2.355 trillion represents the size of the household and non-profit institutions serving households.

While there is a degree of overlap, as households do consume say legal services (the rich are always litigating privately) the figure of around $3.5 trillion is in the ball park. This amounts to around 12% of total private gross output or when compared to gross value added, which it can be, 20.0%. Once again, the Chinese can breathe easy, the US economy is not that big.

Hence the commodity producing section of the economy, when we strip away the noise is around four fifths of gross output or four times bigger than the 17% figure for Finance and Real estate. (Methodology. $3.5 trillion is deducted from private industry G.O. of $28.0 trillion found on line 16, reducing it to $25.0 trillion. Finance and Real Estate amounts to $5.9 trillion found on line 484, and when adjusted by imputed rents of $1.49 trillion, yields $4.4 trillion or 17% of $25.5 trillion.) Of course, wholesale and retail are included in commodity production because they circulate the products produced by the Goods Producing Sector plus net imports. Further their margins are provided by the discounts given to wholesalers and retailers by the producer of goods to pay for the costs of circulation.

The purpose of this article was to give a perspective on the relative size of the commodity producing sector of the economy compared to Finance and Real Estate. It is satisfied with approximations rather than exactitude because the data is too porous for anything else. Its most important observation is that Marx's hypothesis: the major sectors of the economy should share an average rate of profit, is confirmed. While it is true that finance has grown, and that the variety of derivatives has blossomed, this is not a sign of the strength of the finance system but its vulnerability. The key feature of the era has been the growth in corporate cash flow and the decline, relatively, in the productive consumption of this cash flow. This has fed into the banking system fuelling riskier and risker investments together with more leveraged speculation. In a word, these speculative carbuncles are not the product of ideology but an unhealthy capitalist economy where unproductive consumption and speculation has displaced productive consumption.

DATA USED IN THIS ARTICLE.

Sector	G.O.	G.V.A.	G.S.	ADJUSTMENT	G.O. adj.	G.V.A. adj	DEPRECIATION	N.S.
GOODS PRODUCING	**7941.3**	**3413.6**	**1653**				**785**	**868**
FINANCE	**2408.3**	**1404.9**	**602.2**					
REAL ESTATE	**3454.6**	**2478.8**	**2086.1**	**1492**	**1962.6**	**986.8**		
FINANCE + REAL ESTATE	**5862.9**	**3883.7**	**2688.3**	**1492**	**4370.9**	**2391.7**	**322**	**874.3**
CALCULATING RATE OF PROFIT	**N.S. b/f**		**CIRCULATING CAPITAL**	**+**	**FIXED CAPITAL**		**=TOTAL**	**R.O.P**
GOODS PRODUCING	**868**		**1713**		**6657**		**8370**	**10.4**
FINANCE + REAL ESTATE	**874.3**		**1121**		**6767**		**7888**	**11.1**
(LEGEND: G.O. Gross Output; G.V.A. Gross Value Added; G.S. gross output; N.S. net surplus.)								
formula for turnover GO/GVA+(GO-GVA)/GVA								
GOODS PRODUCING	**7941/3414+(9741-3414)/3414**	**3.652742**						
FINANCE + REAL ESTATE	**4371/2392+(4371-2392)/2392**	**2.655057**						

2016 Composition of Gross Output of Industry

Brian Green. April 2018