CRACKING THE RATE OF PROFIT IN CHINA.

Unfortunately, the economic data in China is not as well organised and presented as in the other developed capitalist economies, especially the USA. This has hampered research. However, in some areas it is more comprehensive. The Chinese Bureau of Statistics shows a greater concern, than does the BEA for turnover, and there are series which detail average times of turnover of inventory and, uniquely, the days between sale and receipt of payment. This article seeks to apply the same methodology to determine the rate of profit in China as has been utilised for the USA previously. In both cases, manufacturing is chosen for comparison. What this article does not do is to delve into the accuracy of the Chinese data.

All the data in this article has been extracted from *THE CHINA STATISTICAL YEARBOOK 2016* compiled by the National Bureau of Statistics of China and where the data is absent, from the quarterly data issued by the Bureau. The analysis is limited to 2015, the most recent year, and is therefore a snapshot of the economy. A later article will look at the period from 1995 – 2016 in order to establish trends in the rate of profit.

At first sight, the Chinese rate of profit most commonly used, looks low. If we divide total manufacturing profits in 2015 amounting to 57,975 (100 million Yuan) over the total assets of 782,522 we obtain a rate of profit of only 7.4% (Table 13-1). This is half the rate of profit in 2015 for US manufacturing which amounted to 14.0%. (Note 1.) The complex rate of return, as in manufacturing above, is the one commonly used for international comparison. It is also used to show the difference in the rates between state and private industry. If we use the same methodology which uses the data found in Table 13-1, the average complex rate of return for industry is 6.1%, falling to 2.9% for state industry, but rising to 10.6% for private industry.

The reason this rate is designated the "complex" rate of return is that total assets in China is not commensurate with fixed assets in the USA on which the traditional rate of return is based. The definition of total assets as set out by the Bureau appears in their explanatory notes at the end of section 13. "***Total Assets*** *refer to all resources that are owned or controlled by enterprises through previous trades or transactions with expectation of making economic profits. Classified by the degree of liquidity, total assets include current assets and non-current assets. Current assets can be classified into monetary capital, trading financial assets, notes receivable, accounts receivable, advanced payments, other receivables and inventories. Non-current assets can be divided into long-term equity investment, fixed assets, intangible assets and other non-current assets. Data on this indicator can be obtained from the year-end figures of total assets in the Balance Sheet of accounting records.*

From this definition it can be seen that the total assets include financial assets under the heading Non-current Assets. In short, total assets are larger than Marx's definition of constant capital which amounts to fixed capital plus inventories. It is also important to recognise that part of the reason why state industry manifests a lower complex rate of return is that it owns more non-financial assets than does private industry. Here we recognise the extensive cross-holdings of SOE's, where each owns part of the other thereby increasing their total assets above that of the private companies.

Fortunately, the complex rate of return can be substituted by more accurate rates of profit. The first step is to obtain the rate of turnover to calculate the amount of circulating capital or variable capital over which to measure total profits. In Table 13.1 the Bureau provides total revenue for manufacturing and in its quarterly tables it provides GDP for manufacturing. Total revenue (total sales) is equal to

Gross Output and GDP for manufacturing is equal to GVA. These two figures provide the basis for calculating annual rates of turnover. (all figures in 100 million Yuan)

$$\frac{992{,}674}{282{,}040} + \frac{(992{,}674 - 282{,}040)}{282{,}040} = 3.5 + 2.5 = 6$$

This annual rate of turnover in 2015 of 6 or to be more accurate, 6.04, is twenty percent higher than that found in the USA. Secondly, it is worth comparing this rate to that of inventory turnover which is 7.9. Indeed, if we add the time for companies to be paid to the time taken to circulate inventory, this combined total is equal to a rate of turnover of around 6 per annum.

In order to arrive at a more scientific rate of profit, a number of steps need to be taken. Step 1, already taken, is the derivation of the rate of turnover. Step 2 converts the gross output of 992,674 into the cost of gross output by deducting total profits from gross output. This is done below;

992.674 less 57,975 equals 934,699 cost of gross output (Tables 13-1 and 13-2)

Step 3 is to reduce this cost of gross output to working capital by dividing it by the rate of turnover (Step 1);

$$\frac{934{,}699}{6} = 155{,}783 \text{ working capital}$$

The final step needed to produce the rate of profit, is to obtain the total amount of capital invested in the production of 57,975 of profit. This is done by adding circulating capital to fixed capital. Fixed capital is provided by table 10.6. (It is not necessary to add in inventories as they form part of the circulating capital.) The total capital derived in this manner now forms the denominator for determining the real rate of profit. It turns out to be different to the complex rate of return, because the real assets invested in production are only one-third the size of the total assets which commonly form the denominator in China.

$$\frac{57{,}975}{180{,}370 + 155{,}783} = 17.3\%$$

This figure is significantly higher than the rate of profit found in the USA amounting to 14.0%. The same applies when using C+v as the denominator rather than fixed + circulating capital. To determine this denominator total wages need to be reduced to variable capital or v. The sum of wages for manufacturing is provided by Table 4-13. In 2017 it amounted to 28,341.6 (100 million Yuan) which is half the size of total profits. When this sum of wages is divided by the rate of turnover, it yields a figure of 4723.6 (100 million Yuan) for variable capital. The new rate of profit is

$$\frac{57{,}975}{180{,}370.4 + 20{,}021 + 4723.6} = 28.3\%$$

where 180,370 stands for fixed capital, 20,021 for inventories and 4723.6 for variable capital. This figure compares to the US figure of 14.7%. Not only is this rate of profit considerably higher than that found in the USA, but the gap between the two Chinese rates of profit of 11% is also significantly higher than the difference of only 0.7% between the two rates found in the USA. The reason for these variations is discussed below.

Discussion.

It is prima facie the case that the Chinese rate of profit based on the above C+v is overstated. Total wages provided by Table 4-13 amounting to 28,341.6 (100 million Yuan) is only 10% of manufacturing

GDP amounting to 282,040. This is abnormally low and not found in any other set of national accounts. To correct for this abnormality the figures provided by Table 3-12 titled *Income Approach Components of Regional Product* are used. It reveals that total compensation nationally, when averaged out, rather than pure wages, amounted to 47.8% of GDP not 10%. When that percentage is applied to manufacturing GDP of 282,040 compensation rises to 134,815 raising variable capital from 4723.6 to 22,476. This reduces the rate of profit from 28.3% to 26%.

$$\frac{57,975}{180,370 + 20,021 + 22,476} = 26\%$$

The difference between the two rates of profit in China narrows from 11% to 8.7% or from 28.3% vs 17.3% to 26% vs 17.3%. The higher rates of profit that prevails in China are predictable. This is not due to the rate of exploitation being higher in China. It is actually lower than the rate found in the USA (disregarding the transfer of value from China to the USA). In China the rate of exploitation which is gross profit or surplus divided by compensation is:

$$\frac{57,975}{134,856} = 43\% \text{ in China}$$

while in the USA it is:

$$\frac{1055^*}{1003} (\$Billion) = 105\% \text{ in the USA} \quad (^* = \text{surplus after taxes on production})$$

In other words, it is not clear whether Chinese workers are <u>relatively</u> more exploited then their US brothers and sisters. True Chinese workers' wages are much lower than in the US and the intensity of their labour is more barbaric, but the over-riding issue here is that US workers are much more productive. On average, in 2015, each US worker produced four times as much value added as did a Chinese worker [OECD.Stat (stats.oecd.org/Index.aspx?DataSetCode=PDB_LV)] and they also produced twice as much profit.

With regard to the mass of profits, the more important indicator of exploitation is the rate of surplus value. This is determined by multiplying the rate of exploitation by the rate of turnover. As China has the higher rate of turnover, 6 vs 4.5 for the US, the rate of surplus value in China rises to 258% compared to the US rate of 486%. The rate of exploitation, which was two and a half times higher in the USA, now falls by 30% to less than twice that amount when measured by the rate of surplus value.

The higher turnover rate for China is predicable. China is the workshop of the world. It is the hub of the world's production chain. Much of what is produced is produced within China and then within proximity. Where components are imported this tends to be from adjacent countries like Japan, Taiwan and South Korea. This compares to the US where many of the inputs used need to be shipped or airfreighted over long distances. (It also has less Intellectual Property to confound the data.)

The real reason for the difference in the rates of profit between the two countries, despite the discounts provided by Chinese contract manufacturers to US multi-nationals and wholesalers, is the difference in their respective compositions of capital. Chinese manufacturing is much more "labour intensive" than US manufacturing. In the USA only 12.3 million are employed in manufacturing compared to 52.4 million in China (Table 4-6). In other words, there are four and a quarter times the number employed in Chinese manufacturing compared to the USA and yet China's share of world manufacturing at 25.4% is only fifty percent larger than the US share at 17.1% (2015).

The higher productivity, on average, of US workers is reflected both by the ratio of fixed to circulating capital and by the ratio of constant to variable capital. In China the ratio of fixed to circulating capital in 2015 was 116% while in the USA it was 300%. In other words, more fixed capital was used in the USA relative to China.

This is again reflected in the C/v ratio. This ratio stood at 892% in China while in the USA it stood at 1592%. When this ratio is turned around, v as a percentage of C in China was 11.2%, while in the USA it was 6.3%. Simply stated, the value composition of capital in the US was almost double that found in China. China produced a higher rate of profit, despite each worker producing less profit than their US counterparts, because they used proportionately less capital to produce this profit.

Once again this validates Marx's insight into the importance of the technical composition of capital, together with his conclusion that in long run it is the most important determinant acting on the rate of profit. It is now clear that China is embarking on a 1980s journey, just as the USA did when it restructured its industry. Large scale automation is being rapidly introduced into Chinese industry. In 2016 China had only one tenth the number of industrial robots compared to Germany, Japan and South Korea, or, 36 robots per 10,000 manufacturing workers compared to 292 in Germany, 314 in Japan and 478 in South Korea. In addition, robotic usage in China was well below the international average of 66. (Financial Times 06/06/2016). By 2016 China was already purchasing 27% of all industrial robots produced internationally to make up the deficit and this share is expected to rise exponentially. (The Diplomat, 19/05/2017).

This technical revolution will see C rise rapidly and v fall rapidly as tens of millions of Chinese workers are displaced by automation. This convulsive restructuring of the Chinese working class and its concomitant problems, is one of the reasons why President X1 has become more authoritarian and why he has assumed more executive powers. As a capitalist country China has no choice but to respond to international competition through matching international levels of productivity. If it fails in this endeavour, it will neither achieve economic independence nor will it replace the US as the world's hegemonic power. It will remain a producer for others rather than for itself.

The ultimate price of this automation in the end is the tendency for the rate of profit to fall. The reduction in the amount of labour employed in China, and thus the fountain of surplus value it produces, will not only be felt in China but throughout the world economy. The transfer of value from China, acting as a contract manufacturer to foreign multi-nationals and wholesalers, will dry up as China ascends the value chain. Already Chinese export prices are rising ending the cycle of deflationary industrial exports which not only kept international inflation in check, but which provided such a boost to profits.

What this article proves is that it is possible to develop a more accurate rate of profit in China based on fixed and circulating capital. This will be the denominator (not C+v) used in the future article looking at the longer-term trend in Chinese manufacturing profitability. Until such trends are revealed no estimate of the health of the economy can be made. In conclusion, this article shows that the rates of return provided by the various statistical bureaus around the world, including China, bear little resemblance to real world rates of profit. Therefore, Marxist theoreticians who have relied on these rates to compile a world rate of profit, need to rework their data to better reflect the actual conditions prevailing in the world economy at any given time.

(Note 1.) see my previous posting entitled *INTRODUCING A MORE CONCRETE RATE OF PROFIT.*

Brian Green. November 2017.