A world rate of profit

Globalisation and the world economy

Marx's model of capitalism assumes a world economy, or capital in general[1]. It was at that level of abstraction, that Marx developed his model of the laws of motion of capitalism and, in particular, what he considered was the most important law of motion in the capitalist process of production, the law of the tendency of the rate of profit to fall[2].

The rate of profit is the best indicator of the 'health' of a capitalist economy. It provides significant predictive value on future investment and the likelihood of recession of slump. So the level and direction of a world rate of profit can be an important guide to the future development of the world capitalist economy.

However, in the real world, there are many capitals; not just one world capitalist economy, but many national capitalist states. There are barriers to the establishment of a world economy and a world rate of profit from labour, trade and capital restrictions designed to preserve and protect national and regional markets from the flow of global capital.

So can we realistically talk about a world rate of profit? And what would it tell us if we could?

Much empirical research has concentrated understandably on the US for testing the validity of Marx's law of profitability as an explanation of economic growth, booms and slumps in capitalist production.[3] It is the most important capitalist economy and it has the best data. But there has also work been done on other national capitalist economies.

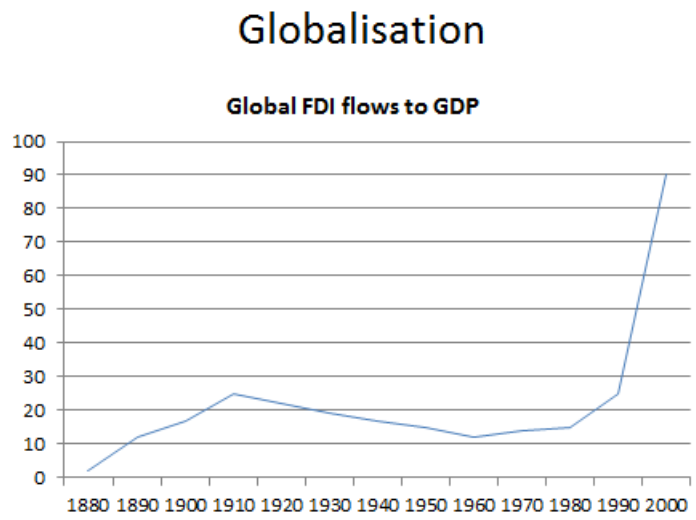
As early as 1848 Marx forecast that capitalism would become the dominant mode of production and would rule the world. He expected that all the countries of the world and their labour force would be brought under the control of capitalism and market forces. That would mean two things: the urbanisation and industrialisation of the peasant and other non-capitalist sectors of economies as they were incorporated into the capitalist sector; and the conflict and tension between global capitalism and national state interests.

The biggest move towards the globalisation of capital began in the late 19th century with the expansion of capital flows from the leading capitalist states into their colonial territories. This new era of modern imperialism, Marx explained was part of the need for capitalism in the leading capitalist states to maintain a rate of profit that was falling or under pressure. Foreign trade and investment was an important counteracting factor to the law of falling profitability. It could cheapen the value of constant capital through cheap raw materials and it could raise the rate of surplus value through the exploitation of a newly emerging labour force for capitalism in the colonial territories.

[1] Quote from Marx
[2] Quote from Marx
[3] For a comprehensive survey of these studies on the US rate of profit, see my paper to AHE 2011 Measuring the rate of profit 2011.

That surplus value could be transferred to the imperialist economies and thus raise the rate of profit there[4].

This process of globalisation in the late 19th century was arrested by two major world wars, the product of imperialist rivalry that resulted from the drive to sustain the rate of profit in the major capitalist economies in the early 20th century. However, from about the 1980s onwards, with the rate of profit in the major economies at new lows, the leading capitalist states again looked to counteract Marx's law through renewed capital flows into countries that had massive potential reserves of labour that would be submissive and accept 'super-exploiting' wages. World trade barriers were lowered, restrictions on cross-border capital flows were reduced and multi-national corporations moved capital at will within their corporate accounts.



So I would argue that in the 21st century, for the first time in the history of capitalism, we can begin to recognise a world rate of profit that is meaningful.[5]

Measuring the rate of profit in capitalist economies

Can we measure this world rate of profit? Most empirical work up to now has been concentrated on measuring the US rate of profit and trying to get a measure that is close as possible to Marxist categories, i.e. a la Marx[6]. Most studies confirm that there was a rise in the US rate of profit from 1982, with differing views on when that rate peaked.

There has also been work on the UK rate of profit[7]. My recent estimates, one based on current cost measures and one on historic cost, show a rise from a trough after the deep recession of 1974-5. The overall period from 1950 to 2009 shows a downward trend in the UK rate of profit. But that is because the rate of profit was so high in the early 1950s and declined thereafter to reach a low in

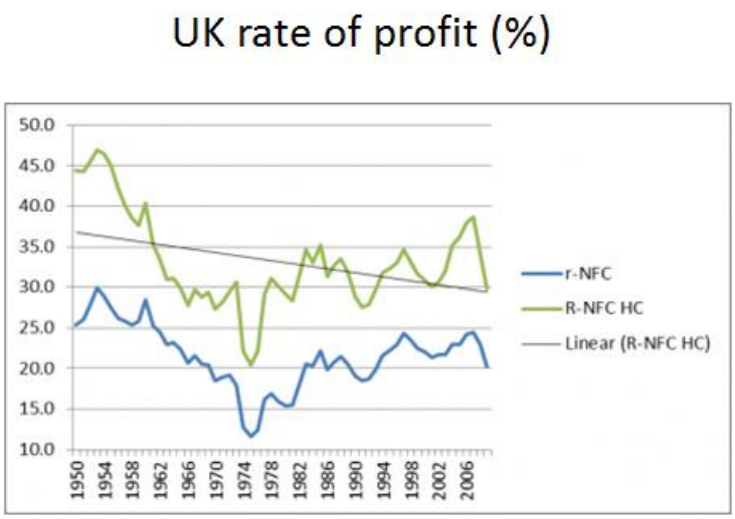
[4] Quote from Marx

[5] In my book, The Great Recession, I argued that a world rate of profit would have little meaning, given national barriers. However, the sheer extent of the process of globalisation in the last 25 years has led me to revise that view.

[6] Dumenil and Levy use this term, *a la Marx*, to describe various ways of measuring the rate of profit that coincide as closely as possible to Marx's value rate of profit. Se my paper to the AHE conference 2010, op cit.

[7] http://thenextrecession.wordpress.com/2012/01/04/the-uk-rate-of-profit-and-others/

the first great post-war capitalist slump of 1974-5. That seems to have been a turning point. UK manufacturing industry was decimated and the process of transforming the UK capitalist economy fully into services-based sectors began in earnest. This led to a gradual improvement in the rate of profit, although the rate did not get back to the levels of early 1960s (except, on some measures, in the recent credit-fuelled boom of the early 2000s).[8]



There has also been work on some of the Eurozone countries and on individual countries within Europe, Japan and even in so called emerging economies like Mexico, Argentina and China[9]. Dave Zachariah looked at the rate of profit for several countries including some emerging economies like China and India[10]. But he did not develop an integrated world rate of profit.

There have been a few studies that do attempt to integrate these national rates of profit into a world rate of profit. Minqi Li *et al* developed a world rate of profit for a long period going back to 1870. For the 19th century, the study integrates just the UK, US and Japanese rates of profit. For the period after 1963, the authors bring in Germany, France and Italy, to make the G6.[11]

Among other things, Minqi Li *et al* found that the world rate of profit fell from 1970 to 1983 and then rose from 1984 to 2005, although the data also show a peak in the world rate of profit in 1997. Minqi Li *et al* suggest that this could signal that the world rate of profit is now in a down phase.[12]

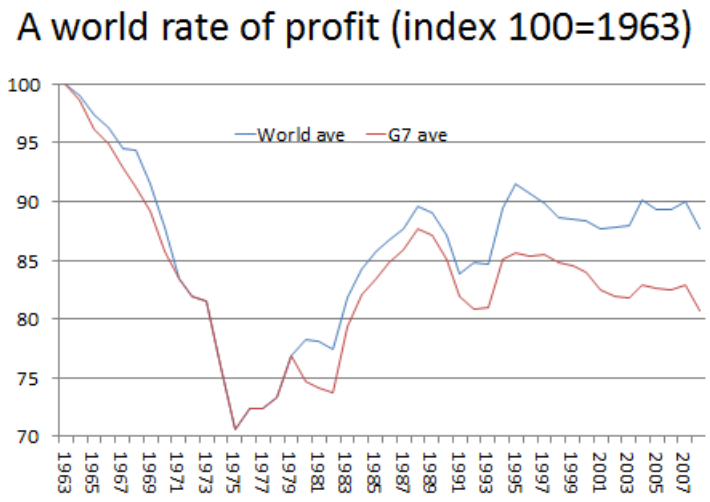
Investment bank Goldman Sachs analysts, Kevin Daly and Ben Broadbent developed a global rate of profit based on data from the ten largest capitalist economies including China and Korea[13]. Using national sources, they measured the return on physical capital. They found a sharp rise in the global rate of profit from 1982 to 2006. However, this measure included capital gains or losses from holding an investment and then selling it. This latter is a financial concept; so, in my opinion, not close to the rate of profit, *a la Marx*.

[8] The blue line is the UK ROP in current costs and the green line in is historic costs
[9] See references
[10] D Zachariah, see references
[11] Minqi Li, see references
[12] Minqi Li p 43
[13] Daly and Broadbent, see references

But the Daly-Broadbent study also used a net yield of capital measure, which excludes capital gains. On this measure, they found that the global rate of profit also rose from 1982, but was only a little higher at the peak of the boom in the last decade compared to the trough in 1982. Interestingly, they also show that US profitability followed the same trajectory that I and others have found, namely that the US rate of profit peaked in 1997 and has not been surpassed since. Daly-Broadbent also concluded that a rising rate of profit in the so-called emerging economies was the key driver of the global rate of profit.[14]

A new measure of the world rate profit

In this paper, I attempt to develop a world rate of profit that includes all the G7 economies plus the four economies of the BRIC acronym. So this includes 11 top economies which constitute a significant major share of global GDP, as the Minqi Li and GS studies. I use the extended World Penn Tables that Zachariah used in his individual country study. I have weighted the national rates for the size of GDP, although the crude mean average rate does not seem to diverge significantly from the weighted average[15].



I find that 1) **there was a fall in the world rate of profit from the starting point of the data in 1963 and the world rate has never recovered to the 1963 level in the last 50 years**. The rate of profit reached a low in 1975 and then rose to a peak in the mid-1990s. Since then, the world rate of profit has been static or slightly falling and has not returned to its peak of the 1990s. This suggests that boom of the late 1990s and early 2000s was not based on rising profitability as many have argued, but more on the credit boom and the growth of fictitious capital. And the data seem to confirm the view that I reached, using just the US rate of profit, that **world capitalism is a down phase for profitability.**

The other outcome is the divergence between the G7 rate of profit and the world rate of profit after the early 1990s. **This indicates that non-G7 economies have played increasing role in sustaining the rate of profit.** The G7 capitalist economies have been suffering a profitability crisis since the late

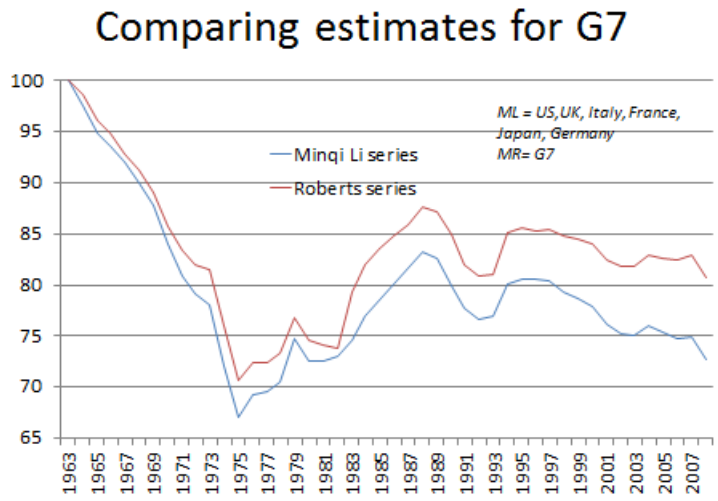
[14] Dale and Broadbent p 15
[15] For details of sources and workings, see Appendix

1980s and certainly since the mid-1990s. My data only go to 2008 and do not take into account the damage to profitability from the Great Recession. The G7 and world rates of profit are likely to be back at the levels of the mid-1980s now.

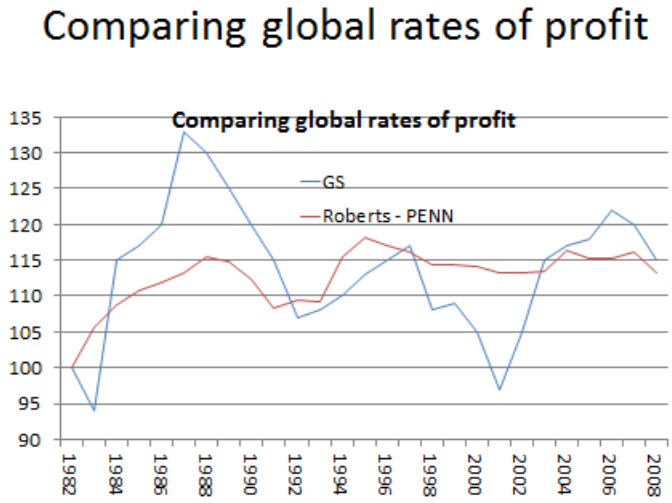
Comparing the data

How robust are my data? There are two ways of checking this. I compare my results with other studies of a world rate of profit that use different sources (national data). And I compare my results from the World Penn tables with my own estimates of the rate of profit for the US and the UK from national sources.

My measure of the world rate of profit for the G7 economies matches pretty closely the trajectory of the Minqi Li et al study based on the G6 economies. Both studies show a similar rise from 1975 and a similar fall after 1995.

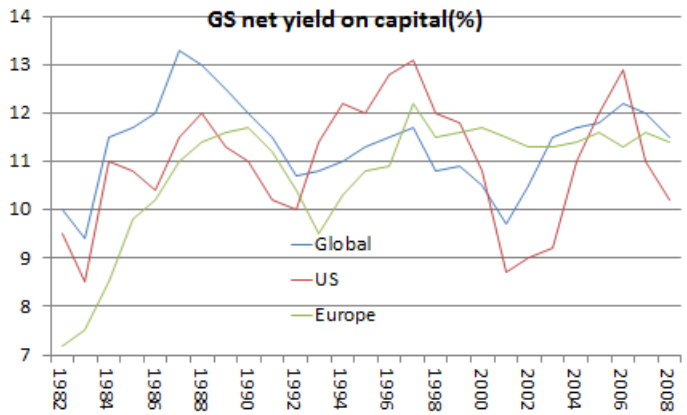


The Daly-Broadbent GS study based on the top ten capitalist economies is also similar to my outcome based of G7+BRIC economies.



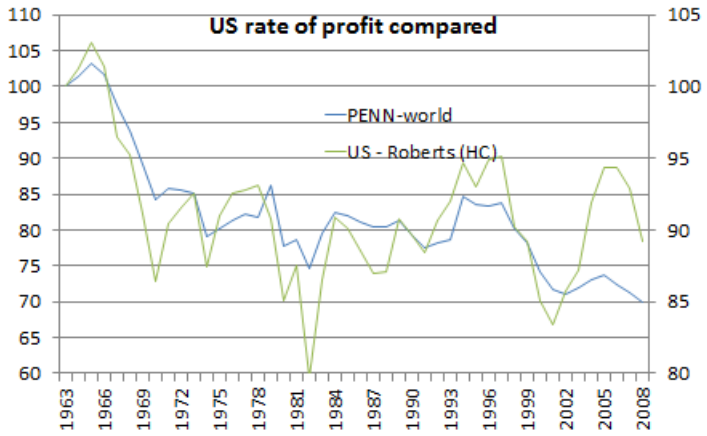
The GS study only goes back to the early 1980s and the movement in its measure of the rate of profit is much more volatile. This is probably because it is based on nominal data where capital values and profits have been inflated by the rise in fictitious capital, while both my study and that of Minqi Li use real data (after accounting for inflation)[16] and in the case of Minqi Li, is a ten-year rolling average. The GS study still produces a US rate of profit that also peaks in 1997, similar to my own results and that of others.

Global net yield on capital



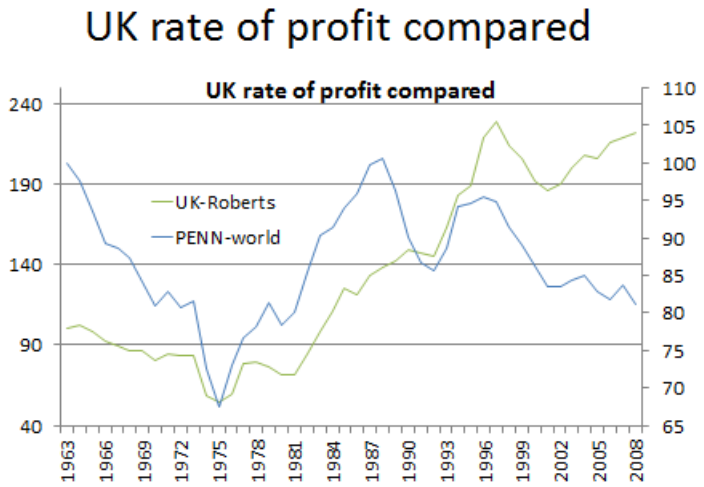
Also, if I compare my PENN table result for the US rate of profit against my own estimates made in various papers using national accounts, I get a very good fit.

Comparing US rate of profit



If I compare the UK rate of profit based on national data and the outcome from the PENN tables, there appears to be a significant divergence from the mid-1990s. Although both appear to peak in the mid-1990s, the national data (based on inflated fictitious values) show a further increase (although not back to the peak of 1997), while the PENN table indicates a fall to 2008.

[16] For an outline of the different ways to measure the world rate of profit, see Appendix



Countervailing factors in the neo-liberal period on a world scale

What are the implications of these outcomes? The world rate of profit indicates what most analysts have concluded looking a national rates, particularly that of the US. The rate of profit rose during what is called the 'neoliberal period'.

Marx's law of the tendency of the rate of profit to fall includes a series of countervailing factors that can dominate over the 'law as such' and so create conditions for a rise in profitability for at least some time. Marx said that the most likely conditions for such a rise in the rate of profit were when *"a rise in the rate of surplus value was coupled with a significant reduction in the value of the elements of constant capital and fixed capital in particular."* [17]

This was precisely the conditions of accumulation from 1982 onwards. The two deep economic slumps of 1974-5 and 1980-2 had sufficiently reduced the value of constant capital. At the same time, the slumps had driven up unemployment and weakened the ability of the labour movement to protect wages (the cost of variable capital). The productivity of labour rose as new techniques (and hi-tech ones at that) were introduced to many sectors of the economy, while wages were not allowed to rise as much. The wage share in the US economy plunged. The rate of surplus value rose. At the same time, constant capital fell in value relative to variable capital.

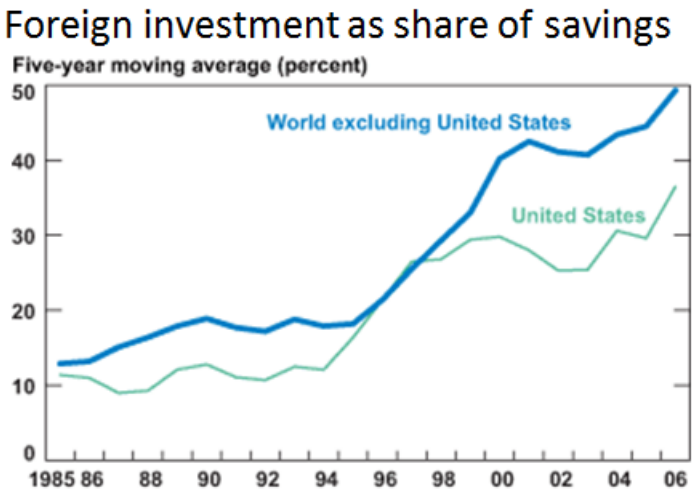
But, as Marx argued: *"In practice, however, the rate of profit will fall in the long run".*[18] These countervailing influences cannot last forever and eventually the law of profitability will start exert its downward pressure on profits. The rate peaked in 1997 with the exhaustion of the gains of new technology in the productive sectors. US capitalism only sparked onwards through rising profits in the financial sector and a huge expansion of 'fictitious capital' not backed by increased value in the productive sectors. The collapse of the US housing market from 2006 exposed the imaginary nature of financial profits and triggered the eventual collapse of the banking sector that relied on them.

So Marx's law of profitability applied in the sense that the countervailing factors of a rising rate of surplus value and the cheapening of the value of constant capital overcame the 'law as such', but

[17] Marx quote
[18] Marx quote

only for a while. Hi-tech developments combined with rising exploitation both in the G7 economies and super-exploitation of the so-called emerging economies[19]. However, in the 1990s, based on my data above, it appears that the impact of these countervailing factors faded in the G7 economies. This was not the case for the world as a whole.

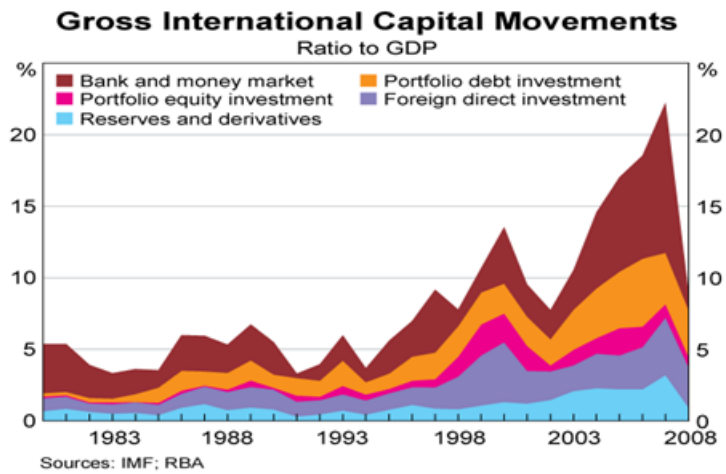
The data also suggest that globalisation was the major force that enabled the counteracting factors to dominate in the 1990s. The connection between globalisation and the rate of profit can take two forms. The first is that national capitalist economies can gain a higher rate of profit from investment abroad, to compensate for a fall in the domestic rate of profit.[20] Andrew Kliman has argued that this was not a significant factor in the movement of the US rate of profit.[21] Other writers have also denied this.[22] This could explain why US investment as a share of available corporate surplus-value faded during the last decade, unlike investment elsewhere.



But more important, globalisation means a huge growth in international trade and capital flows. This was particularly the case from the 1990s, explaining the divergence between the G7 and world rate of profit that I have found.

[19] The evidence of growing inequality and a rising rate of surplus value in the G7 economies after 1982 is well established – see Saez and Piketty, G Carchedi, Behind the crisis, references.
[20] Marx quote
[21] Andrew Kliman, The failure of capitalist production, 2012 , see references
[22] Alex Callinocos, Joseph Choonara, references

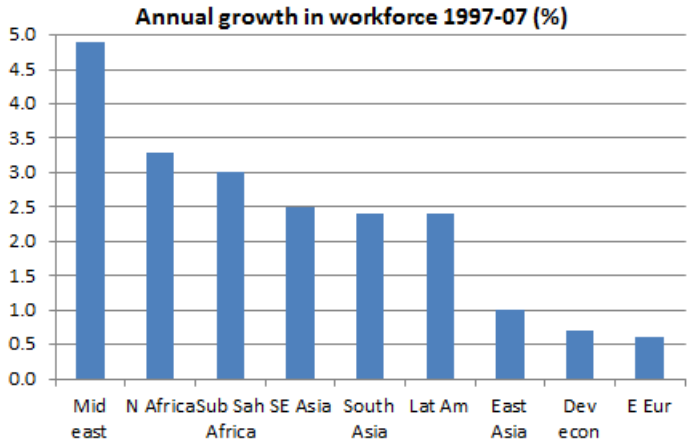
Gross international capital flows



Capitalism became truly global in the late 20th century, in a period that was similar but way more powerful than in the 'globalisation' period of the late 19th century. That's because the huge increase in capitalist investment into so-called emerging capitalist economies brought into the capitalist mode of production for the first time a huge supply of peasant and non-capitalist labour, and much of it at a cost below the value of labour power, i.e. super-exploitation[23].

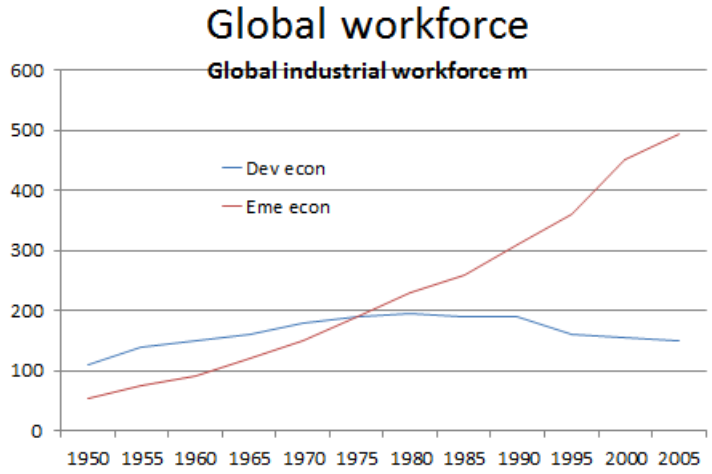
The emerging economies have much faster growth in population that the mature capitalist economies.

Global workforce

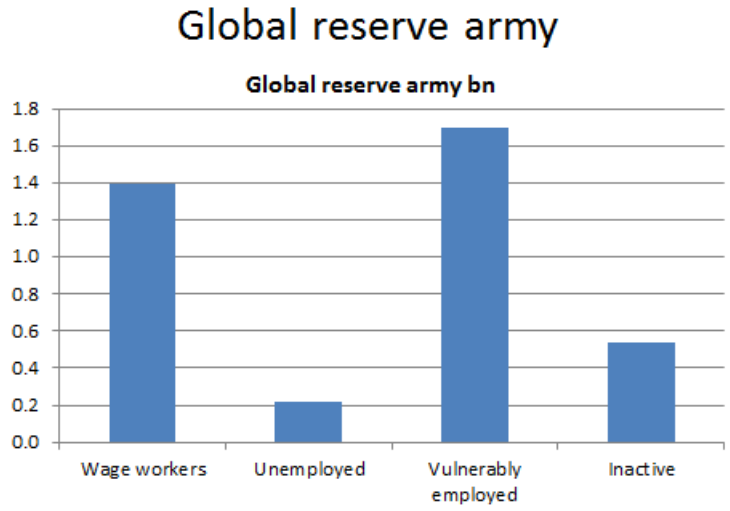


Since the mid-1970s, the emerging economies have had a larger industrial workforce than in the advanced capitalist economies. And the gap continues widen. Value and surplus value in the world capitalist economy is increasingly created more from outside the mature capitalist economies.

[23] The global reserve army of labor and the ne wimepriasma



At the same time, this global workforce is super-exploited.[24] The global reserve army of unemployed, underemployed or inactive is some 80% larger than those at work.



This would suggest that, as long as there is a significant source of labour supply to be used and exploited under the now dominant capitalist mode of production, capitalism has not reached its absolute limits[25]. China's industrial workforce is still growing, although it is likely to peak by the end of this decade. India's workforce has much further to go. And there are still areas of the world that are yet to be fully exploited.[26]

[24] Super exploitation can have two combined meanings: 1) labour power receiving less than its value and 2) unequal exchange of labour from weak emerging capitalist economies to imperialist economies. See John Smith, references

[25] W Arthur Lewis first raised the idea that unlimited supplies of labour in emerging economies would provide a huge resource of value as they were brought under the capitalist mode of production; see references

[26] CIVETS are the next layer of highly populated emerging capitalist economies to succeed the BRIC acronym: Colombia, Indonesia, Vietnam, Egypt, Turkey and South Africa.

Dave Zachariah's study of the national rate of profits in various countries confirmed Marx's law of profitability, namely the rate of profit moved in line with the organic composition of capital and rate of exploitation of labour power. He argued that "demographic factors will eventually bring down the growth of the workforce to very low or even negative levels. The reinvestment of profits, which is the source of the dynamism of capitalism, can no longer be sustained at high levels".[27] This is a matter for further research.[28]

What my data do indicate are that the countervailing factors are no longer sufficient to drive up the world rate of profit for now. This suggests that further destruction of capital values will be necessary through another significant slump in global capitalism to raise profitability. Only then could the remaining potential value from the world supply of labour be utilised to restore the health of world capitalism.

[27] Zachariah p13
[28] See Minqi Li or Yang yao.

Appendix

Sources and methods

The World Rate of Profit. The data for my estimate of the world rate of profit since 1963 is taken from the Extended Penn World Table v4.0 complied by Adalmir Marquetti http://homepage.newschool.edu/~foleyd/epwt/

I used column v (gross profit rate (%) weighted against the column K net fixed capital stock at 2005 prices for each country as well as column X (real gross domestic product in 2005 PPP). I used data for the G7 and the four BRIC economies. There are various caveats about the data. Where there were gaps in the yearly data, I made an appropriate extrapolation based on the change in the average rate for the yearly data available. Workings available on request.

Minqi Li et al provide a detailed account of the national sources used in the study. They converted the weighted average of profit rates of the selected countries into constant 1990 international dollars. There are various caveats for each country's profit rate. The profit rate is a moving ten-year average unlike mine.

Daly and Broadbent also used national sources for the ten top economies, but only back to 1982. They used net capital stock from non-financial companies only. There are various adjustments outlined in detail in Daly and Broadbent p8.

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