

## **Tendencies, triggers and tulips -**

### **The causes of the crisis: the rate of profit, overaccumulation and indebtedness**

Presentation to the Third Economics seminar of the IIRE, 14 February 2014, Amsterdam, Netherlands

By Michael Roberts

First, I must thank the organisers of this seminar for inviting to make a presentation. I am honoured to have been asked to speak alongside such an able list of other speakers and, as I can see, an audience of experienced and clever Marxists. The organisers have set me a humungous task: to explain the causes of the current capitalist crisis, bringing in the role of huge increase in debt, which has been the key special feature of this crisis and also to set the situation of the global capitalist economy within the longer term motions of the capitalist mode of production – and do it in about 45 minutes. So expect lots of mistakes in this presentation as I am sure you will quickly point out.

I have added to the suggested title of this presentation the words: ‘tendencies, triggers and tulips’. I want to bring home the idea that capitalist crises have both an underlying or essential cause (the tendency) and a proximate or immediate cause (a trigger), which can be different in each case (from tulips to collateral debt obligations) - tulips are something appropriate to a presentation taking place in the country of the first well documented financial crisis of capitalism.

Let me start by outlining briefly what bourgeois mainstream economics has made of the causes of the global financial collapse and the ensuing Great Recession. Their answer can be divided into two camps. The first is the classical or neoclassical group whose answer is either that there can be no crises, or at least crises are not caused by any inherent flaws in the capitalist mode of production but only by mistakes of governments or central banks i.e. it is exogenous to the system. Or the argument goes, given ‘human nature’, capitalism has crises as a matter of course; they can’t be predicted and they must work themselves out and they will, especially if governments do not interfere.

The second camp is broadly defined as Keynesian: in this camp, crises are indeed the product of inherent flaws or malfunctions in the modern economy. These flaws are to be found in the financial sector and bred by uncertainties about the future, but they are not to be found in the capitalist mode of production as such. And something can be done about it: actions by central banks on monetary policy and governments in fiscal policy can correct the flaws and blockages in the financial sphere and get the capitalist economy going again.

#### **Causes of the crisis:**

*“Economic progress in a capitalist society means turmoil” – Joseph Schumpeter*

#### The mainstream - neoclassical

*“The central problem of depression-prevention has been solved, for all practical purposes.” Robert Lucas, Jr, top US neoclassical economist addressing the American Economic Association in 2003.*

Eugene Fama quote: *“We don’t know what causes recessions. I’m not a macroeconomist so I don’t feel bad about that! We’ve never known. Debates go on to this day about what caused the Great*

*Depression. Economics is not very good at explaining swings in economic activity....If I could have predicted the crisis, I would have. I don't see it. I'd love to know more what causes business cycles.*"<sup>1</sup>

### The mainstream - monetarist

Federal Reserve chief Ben Bernanke has just retired. In his farewell speech to the Association of American Economists, Bernanke announced that the global financial collapse and the ensuing Great Recession that he presided over was very much "*a classic financial panic*", no more and no less. "*I think the recent global crisis is best understood as a classic financial panic transposed into the novel institutional context of the 21st century financial system.*"<sup>2</sup>

For Bernanke, the global financial collapse of 2008-9 can be likened to the 'financial panic' of 1907. This was triggered by speculative activity – in 1907 by "*a failed effort by a group of speculators to corner the stock of the United Copper Company.*" Similarly the 2008 'panic' was "*had an identifiable trigger—in this case, the growing realization by market participants that subprime mortgages and certain other credits were seriously deficient in their underwriting and disclosures.*" In both cases, a fire sale of bank assets and a collapse in the stock market led to a run on bank deposits and liquidity. "*In 1907, in the absence of deposit insurance, retail deposits were much more prone to run, whereas in 2008, most withdrawals were of uninsured wholesale funding, in the form of commercial paper, repurchase agreements, and securities lending. Interestingly, a steep decline in interbank lending, a form of wholesale funding, was important in both episodes.*" And in both 1907 and 2008, there was insufficient regulation of financial institutions to ensure that they were not up to their necks in risky dud assets.

### The orthodox Keynesian

Paul Krugman put it this way: "*Keynesian economics rests fundamentally on the proposition that macroeconomics isn't a morality play—that depressions are essentially a technical malfunction. As the Great Depression deepened, Keynes famously declared that "we have magneto trouble"—i.e., the economy's troubles were like those of a car with a small but critical problem in its electrical system, and the job of the economist is to figure out how to repair that technical problem.*"<sup>3</sup>

### Radical Keynesian/Minsky version

Minsky reckoned that Keynes had shown capitalism to be inherently unstable and prone to collapse: "*instability is an inherent and inescapable flaw of capitalism*". This instability is to be found in the financial sector. "*The flaw exists because the financial system necessary for capitalist vitality and vigour, which translates entrepreneurial animal spirits into effective demand investment, contains the potential for runaway expansion, powered by an investment boom.*"<sup>4</sup>

Steve Keen: "*capitalism is inherently flawed, being prone to booms, crises and depressions. This instability, in my view, is due to characteristics that the financial system must possess if it is to be consistent with full blown capitalism.*" Minsky Journal of Finance, Vol 24 1969

All these schools are agreed on one thing: that capitalist crises and the Great Recession of 2008-9 are nothing to do with profitability of capital or the capitalist mode of production, as such.

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<sup>1</sup> Eugene Fama interview with John Cassidy in *New Yorker*, 21 January 2010

<sup>2</sup> Ben Bernanke, <http://www.federalreserve.gov/newsevents/speech/bernanke20140103a.htm>

<sup>3</sup> Paul Krugman, <http://www.nybooks.com/articles/archives/2013/jun/06/how-case-austerity-has-crumbled/>

<sup>4</sup> K Erturk and G Ozgur, *What is Minsky all about anyway?*, Real World Economic Review, Sep 09

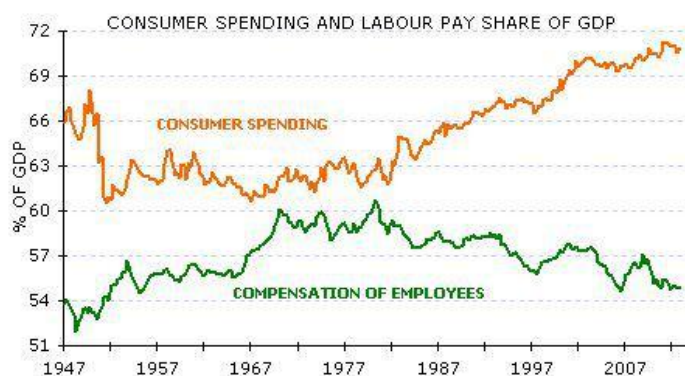
For example, let's look a little closer at the Keynesian explanation of crises. For Keynes, Say's law that production creates its own demand or that savings always equals investment is wrong. Krugman tells us to look at the key macro identity of savings = investment. Keynesian models do the opposite of recent Nobel prize winner in economics Eugene Fama's neoclassical theory (Say's law) of causation from savings to investment and reckon "*investment (in turn determined by animal spirits) does in fact determine the level of savings.*" But Krugman says "*accounting identities can only tell you so much. Anyone who claims that the identities tell you everything you know, without an actual model of how things work, is just doing bad economics.*"

Yes, bad economics. It is in the causal direction of these accounting identities that Marx parts with Keynes. Krugman tells us that the direction of the causation is from investment to savings. But this is not realistic if the only 'proof' is that investment is moved by the psychological mysticism of 'animal spirits' or 'confidence'. Keynesian theory falls back on the irrational and speculative behaviour of individual consumers or investors (as in the work of that other joint Nobel prize winner, Robert Shiller).

What is wrong with both Keynesian and neoclassical explanations of crises and their 'solutions' is a denial of any role for profit in what is after all a profit economy where businesses are money-making machines – and where meeting some people's needs for goods and services is merely a necessary, but not sufficient, side-effect. Nowhere does profit appear in the Keynesian multiplier, which has only investment and consumption as its drivers. If profit is not relevant to crises but only 'effective demand' i.e the level of investment and consumption, a theory of crisis now depends on spending, particularly consumer spending, the largest segment of effective demand.

Unfortunately for this theory of crisis, it bears no relation to reality. Consumption as a share of GDP had never been higher in 2007 in most major economies. And the subsequent fall in consumption was much milder and later than the huge collapse in investment – so a lack of consumption could hardly be the major cause of the crisis.

Look at the story for the US on consumption and wage share.

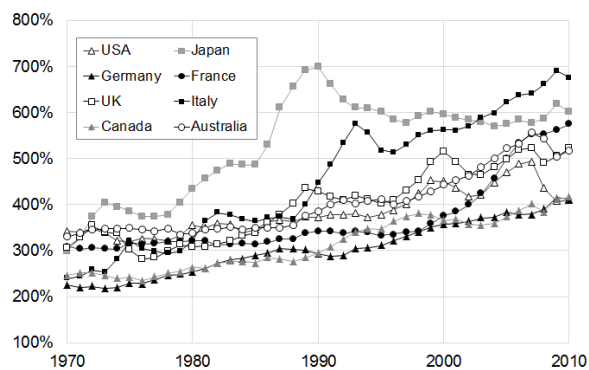


But there is another version of crisis theory that has gained credence. In the neo-liberal period, wage share fell, but spending was sustained by increased household debt and a property boom. But this bred excessive debt and inequalities of income that finally could no longer be supported. This is what caused the financial collapse – after all, profit share was rising so that could not be the cause. So the crisis is the product of inequality, squeezed wages and excessive debt, not anything to do with profitability of capital.

But the empirical evidence for this is weak. As Bordo and Meissner concluded: “*Historical evidence from several major credit booms finds scant support for the inequality/crisis hypothesis.... If income inequality drove the credit boom that preceded the subprime crisis in the US, the event was an outlier by historical standards. Comparative evidence from the last century shows little relationship between rising inequality and credit booms*”<sup>5</sup>

Dumenil and Levy<sup>6</sup>: also attacked the inequality argument as the cause of crises. They point out “*that the concentration of income distribution in neoliberalism to the benefit of high income did not cause sagging demand patterns. To the contrary, the period witnessed a spending spree. Lower income strata certainly suffered from “underconsumption”—not that they were not spending their income but that their consumption did not measure up to decent standards—but there was no macroeconomic lack of demand due to their low demand. This trend was much more than compensated by the spending of upper income fractiles. .... spending gained almost 10 percentage points of GDP between 1980 and 2006. The current crisis was rather a crisis of “overconsumption”, given the fraction of demand imported from foreign countries.*”

And let us consider the evidence of French economist, Thomas Piketty, who has just published a magisterial book, called Capital in the 21st century, on inequalities of income and wealth in the major capitalist economies. Here we can see the huge rise in inequality of income in the major economies since 1980.



But what is the reason for the rise in inequality? Piketty reveals that is not better skills or scarce labour delivering better wages for those with skills etc, but a rise in capital incomes from the ownership of the means of production (dividends, interest and rents). Inequality is a result of an increased rate of surplus value and not the cause. In his book, Piketty compared his explanation of growing inequality with Marx’s model of recurrent crises (as presented in Marx’s 19th century book, the first to be called Capital<sup>7</sup>.

Piketty says: “*capitalists are concerned to accumulate each year more capital, by will power and perpetuation, or just because their life is already sufficiently high, ... and then the “return the capital must necessarily be reduced more and more and become infinitely close to zero, otherwise the share of income going to capital would “eventually devour the all of the national income” ... So there is a*

<sup>5</sup> Bordo, MD and CM Meissner, “[Does Inequality Lead to a Financial Crisis?](#)”, *Journal of International Money and Finance*, 2013 and Coibion, Olivier, Yuriy Gorodnichenko, Marianna Kudlyak, and John Mondragon (2014), “Does Greater Inequality Lead to More Household Borrowing? New Evidence from Household Data”, NBER Working Paper 19850.

<sup>6</sup> Dumenil and Levy *The Crisis of the Early 21st Century: A Critical Review of Alternative Interpretations*

<sup>7</sup> Piketty, <http://www.voxeu.org/article/capital-back>

“dynamic contradiction pointed to by Marx”. Capitalists must accumulate more to boost productivity “in a desperate attempt to fight against the downward trend in the rate of return”. So rising inequality of wealth came about because the share of capital in national income has risen, but it cannot be sustained, not because wage earners are squeezed and take on too much debt, but because the return of capital is progressively squeezed.

### Marx’s law of profitability (the tendency)

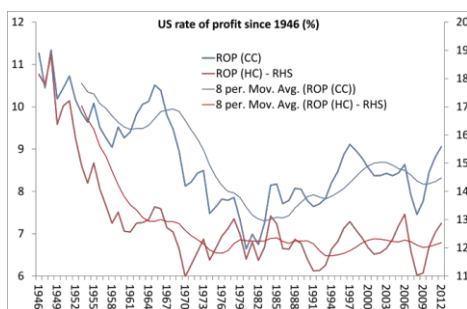
If none of these theories of crisis are satisfactory, should we not look at Marx’s own and start with profit?

In his farewell speech to the Association of American Economists, Bernanke concluded: *The task is complicated by the reality that every financial panic has its own unique features that depend on a particular historical context and the details of the institutional setting.*” What we need to do is to “strip away the idiosyncratic aspects of individual crises, and hope to reveal the common elements” of these ‘panics’. Then we can “identify and isolate the common factors of crises, thereby allowing us to prevent crises when possible and to respond effectively when not.”<sup>8</sup>

So let us do just that – strip away the aspects of individual crises and isolate the common factors. At this point, I want to raise an argument of method. Scientific method is aimed at finding the truth about phenomena and above all trying to develop laws that can explain cause and effect. If we leave analysis to just description: namely that this happened and then this happened etc, we explain nothing. Marx’s dialectical method was first to start with the surface events and then drill down to the underlying abstraction or essence of the process, namely the underlying laws of motion of capitalism. Then once that had been defined, namely the nature of the commodity and the law of value, the scientist can work back to the level of appearance and thus dialectically reveal the causes of everyday events. That is the method of Capital.

And what was, in Marx’s view, the most important law of political economy? The tendency of the rate of profit to fall. So surely, we should consider in detail whether Marx’s law of profitability might provide the most compelling explanation of capitalist crises.

Let’s first look at the empirical evidence on the US rate of profit since 1946 and see if we can relate Marx’s law to crises. Here is a graph of my very latest calculations for the rate of profit in the US.



What can we learn from these data? *First*, in the whole period from 1946 to 2012, the US ROP fell 20% in current cost terms (CC) and 29% in historic cost terms (HC).<sup>9</sup> So there has been a secular

<sup>8</sup> Bernanke op cit

<sup>9</sup> I shall not discuss the relative merits of using historic cost or replacement cost for measuring fixed assets in the denominator of the rate of profit in this presentation – unless asked! See my paper Measuring the rate of profit, <http://thenextrecession.files.wordpress.com/2011/11/the-profit-cycle-and-economic-recession.pdf>

decline in the US ROP from 1946 to 2012 or from 1965 to 2012; with the main decline between the peak of 1965 and the trough of 1982 (however you measure it). The ROP measured in current costs has risen since reaching a trough in the early 1980s, while the ROP measured in historic costs has been more or less flat (looking at the moving average in the graph above).

*Second*, there was a rise in the ROP between 1982-97, 35% under the CC measure and 12% under the HC measure. *Third*, from 1997, the ROP has fallen in CC terms and been basically flat in HC terms. *Fourth*, the ROP at its trough during the mild recession of 2001 was still higher than at the ROP trough during the deep recession of 1980-2 (24% higher under the CC or 2% under the HC measure). However, the ROP in the trough of the 2008 Great Recession was 11% (CC) and 6% (HC) below the 2001 trough, although it was still 10% higher on the CC measure than in 1982 (5% lower on the HC measure).

Change in the US rate of profit (base for each period =1.0)

|    | 1965-82 | 1982-97 | 1997-12 | 1946-12 | 1965-12 | 1982-01 | 2001-08 |
|----|---------|---------|---------|---------|---------|---------|---------|
| CC | 0.64    | 1.35    | 0.99    | 0.80    | 0.86    | 1.24    | 0.89    |
| HC | 0.86    | 1.12    | 1.00    | 0.71    | 0.96    | 1.02    | 0.94    |

What these points show is that Marx’s law of profitability holds good for the US:

The ‘law as such’ is a law of a tendency. There is a tendency for the rate of profit to fall over a long period of time and this tendency will overcome any counteracting factors eventually. But it also shows that, for a period, and especially after a major slump that devalues existing capital, counteracting factors can rule – namely a rising rate of surplus value, higher profits from overseas and the cheapening of constant capital through new technology, among others. That was the experience of the so-called neo-liberal period from 1982 to the end of 20th century.

But even this neo-liberal ‘recovery’ period, with the dot.com bubble of the late 1990s and the credit-fuelled property boom after 2002, was not able to restore overall profitability back to the high levels of the mid-1960s. The ROP peaked in 1997 and the recovery in US profitability during the 2000s and since the Great Recession has not got the ROP back to that 1997 peak.

Another Marxist economist has also done a recent analysis<sup>10</sup>. Themis Kalogerakos finds that the US rate of profit, however it is measured, appears to have two main periods: one where a high rate falls from the 1960s to the 1980s; and one where it recovers from the 1980s. Nothing new there. But TK also identifies within those two periods, two sub periods. The first is the high and slightly rising rate of profit from 1946 to 1965, then the decline from 1965 to the early 1980s, then the rebound up to 1997 and then, finally, a period of decline from 1997. This matches exactly my own interpretation of the data, first analysed in 2006<sup>11</sup>.

<sup>10</sup> Themis Kalogerakos

[http://thenextrecession.files.wordpress.com/2013/12/ekhr61\\_themistoklis\\_kalogerakos.pdf](http://thenextrecession.files.wordpress.com/2013/12/ekhr61_themistoklis_kalogerakos.pdf)

and also see

[http://thenextrecession.files.wordpress.com/2012/06/deepankar\\_basu\\_ramaa\\_vasudevan\\_technology\\_distribution\\_and\\_the\\_rate\\_of\\_profit\\_in\\_the\\_us\\_countdown.pdf](http://thenextrecession.files.wordpress.com/2012/06/deepankar_basu_ramaa_vasudevan_technology_distribution_and_the_rate_of_profit_in_the_us_countdown.pdf)

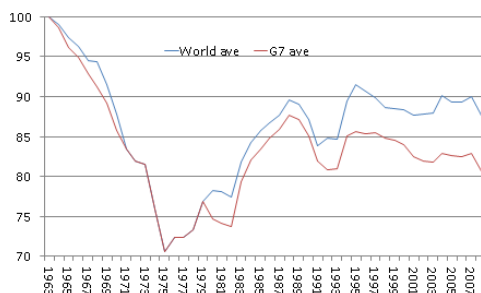
<sup>11</sup> M Roberts, The Great Recession (2009)

What is helpful about TK's analysis is that he shows that, however you measure the rate of profit, whether by the broadest or the narrowest measure or in between<sup>12</sup>, the US rate of profit exhibits the four phases described above. The average rate of profit for the whole period 1946-2011 (TK has not updated for 2012) was 17.99% for the broadest measure and 6.03% for the narrowest. Between 1946-65, the rate of profit was 11% above this average of the broadest measure and 15% above for the narrowest. In the neoliberal period from 1982 to 1997, the rate was still 9% below the average (broadest) or 18% below (narrowest). And the average for 1997 to 2011 was still below the overall average by 5% (broadest). It was 5% higher than the average for narrowest measure from 1997-2011. But in this latest period, the rate in both cases was still below the 1946-65 golden age period by 10% and 15% respectively. These measures were based on current cost fixed assets. If historic costs are used, then TK's results are no different. On the broadest measure, the closest to Marx's, the average rate of profit from 1997 to 2011 was 23% lower, while on the narrowest measure it was 16% lower. So my conclusion that there has been a secular decline in the US rate of profit is clearly confirmed by TK's calculations.

TK looked not just at the level of profitability, but also at the annual change in the US profit rate. Across the whole period from 1946, whatever the measure of the rate of profit and whether measured from trough to trough in the cycle or from peak to peak, the US rate of profit has fallen, by about 0.6% a year. And even more useful for deciding whether profitability can be seen as the underlying driving cause of the Great Recession, in the period of 1997 to 2011, the rate profit fell annually by 0.6% (broadest) and 0.3% (narrowest). This confirms that Marx's law has been operating<sup>13</sup> - and was operating just before the Great Recession.<sup>14</sup>

But what about the rest of the major capitalist economies? What has been happening there? Well, I found in my paper, A world rate of profit<sup>15</sup>, that profitability in the main capitalist economies has acted in a similar manner to the US economy, on the whole. On my measure of a world rate of profit, there was a fall from the mid-1960s, a recovery to the late 1990s and then a decline again.

A world rate of profit (index 100=1963)



<sup>12</sup> Broad measure = profits before tax and interest, narrow = after tax, or retained funds etc, for the whole corporate sector or just the non financial sector, historic or current cost.

<sup>13</sup> G Carchedi and I reach the same results in our recent paper, The Long Roots of the Present Crisis: Keynesians, Austerians and Marx's Law, *World Review of Political Economy*, Spring 2013 (

<sup>14</sup> As young TK puts it<sup>14</sup>: "in the last period, that includes the Great Recession and the years leading up to it, the CAGRs (compound annual growth rates) of all profit measures are negative in both sectors. The average profit rates are slightly higher than in the preceding period, but still lower than in any other phase of the long wave and lower than the average rates for the whole period under scrutiny (except for the after-tax profit rate for the whole corporate sector). In addition to that, the trend of the TSVR (total surplus value rate) in both sectors is slightly descending and that of the other measures is leveling off. What is more, it is obvious from the peak-to-peak and trough-to-trough CAGRs, that the long-term profitability in the corporate and non-financial corporate sectors, aside from the partial revival of profit rates during the 1980-1997 period, is one of declining or at best stagnating nature. This denotes that prior to the crisis, the accumulation process in the US economy was certainly problematic, and profit rates in the "real" economy may have led to the boom of the financial sector."

<sup>15</sup> M Roberts, a world rate of profit, 2011

Such is the prima facie case for arguing that Marx's law of profitability is the underlying cause of crises. Profitability has fallen secularly and, despite the neoliberal period, it has not recovered to previous levels in the Golden Age. Capitalism is under the increased pressure of low profitability and erupts into recurrent crises.

### **Each crisis has a different cause (triggers)**

*"For historians each event is unique. Economics, however, maintains that forces in society and nature behave in repetitive ways. History is particular; economics is general."* Charles Kindleberger<sup>16</sup>,

*"The trigger for crisis can be any number of historical accidents such as the subprime mortgage swindle. It is necessary to deal with different levels of causation. The main point here is that capital is drawn into speculative activity when the rate of profit is low, so accident is the manifestation of necessity."* Mick Brooks<sup>17</sup>

Nobody (at least no Marxist economist) disagrees that the crisis of the 1970s was a profitability crisis. But how can the Great Recession be also due to the law of profitability when profit rates recovered right through from the 1980s? Surely, to argue thus is to adopt some dogmatic Anglo-Saxon 'monocausal' explanation<sup>18</sup>.

Some Marxists prefer a more eclectic approach. Duménil and Lévy<sup>19</sup> argue that capitalism "*underwent four large crises, which we denote as "structural crises": the crisis of the 1890s, the Great Depression, the crisis of the 1970s, and the current crisis. The first and third ones were profitability crises. The second and fourth crises followed phases of financial hegemon. During financial hegemonies, capitalist classes attempt to remove all barriers to their power and quest for income. Thus, in the determination of the nature of a structural crisis, not only the trends of the profit rate are involved, also the mechanisms of the crises themselves. The forms of the crisis are quite distinct. In a profitability crisis, capitalism "sinks"; in a crisis of financial hegemony, capitalism "explodes". The two crises of profitability manifested themselves, respectively, in a crisis of competition (in the 1890s) and a cumulative wave of inflation (in the 1970s), both signalling the pressure on profitability levels. Nothing similar happened before the Great Depression and the current crisis; instead a sequence of phases of explosion of financial mechanisms—notably the dramatic rise of stock-market indices, unsustainable levels of indebtedness, and the involvement in speculative financial investment—and financial crashes was observed.*

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<sup>16</sup> C Kindleberger *Manias, Panics, and Crashes*, 1978

<sup>17</sup> M Brooks, *Capitalist crisis – theory and practice* (published by Expedia and available at Brooks' blogsite, <http://capitalistcrisis.org/>).

<sup>18</sup> Lapavistas: "*the tendency of the rate of profit to fall is the cause of capitalist crises is really a fairly new idea, one that has arisen only post-war and mainly comes from Anglo-Saxon sources... Sure, it might have fitted the facts in the 1970s, but not after. Classical Continental European Marxists of the prewar era never proposed profitability as the cause of crisis*" In response to this G. Carchedi comments: "*if crises are recurrent and if they have all different causes, these different causes can explain the different crises, but not their recurrence. If they are recurrent, they must have a common cause that manifests itself recurrently as different causes of different crises. There is no way around the "monocausality" of crises.*" See <http://www.isj.org.uk/index.php4?id=614&issue=125>

<sup>19</sup> The Crisis of the Early 21st Century: Marxian perspectives Gérard Duménil and Dominique Lévy

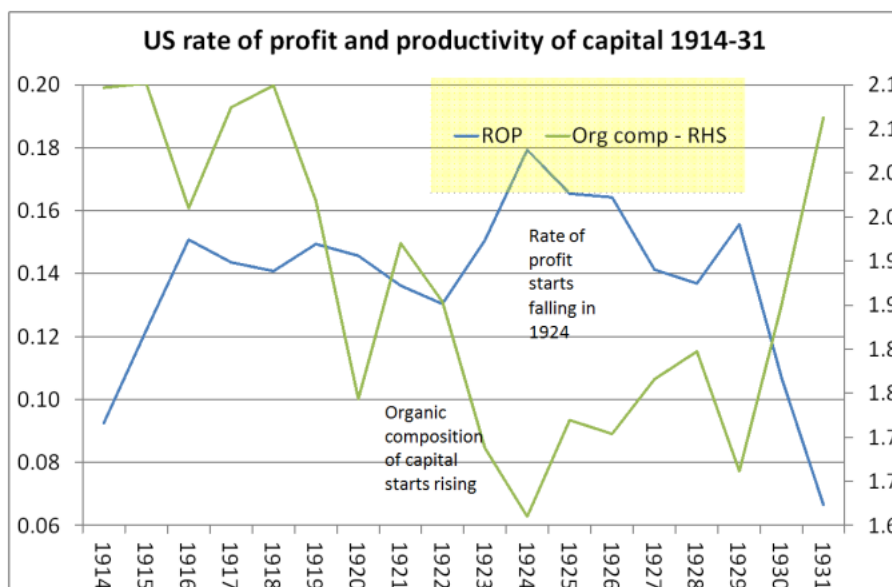


A similar approach is adopted by Panitch and Gindin's in their new prize-winning book<sup>20</sup>. For them, each crisis is unique depending upon the particular relationships and alliances forged between workers, business, finance, and the state. There have been four major historical global crises, the Long Depression in the 1870s onwards, the Great Depression of the 1930s, the Great Recession of 1970s, and what they call the Great Financial Crisis of 2007-09. For them, each has a different cause.

As for the Great Recession in particular, *“Going back to the theories of imperialism a century earlier, that overaccumulation is the source of all capitalist crises, the crisis that erupted in 2007 was not caused by a profit squeeze or collapse in investment due to overaccumulation. In the US, in particular, profits and investment has recovered since the early 1980s... Indeed investment was growing significantly in the two years before the onset of the crisis, profits were at a peak and capacity utilisation in industry had just moved above the historic average... it was only after the financial meltdown in 2007-8 that profits and investment declined.”* Instead, the authors prefer to explain the Great Recession as a result of stagnating wages, rising mortgage debt and then collapsing housing prices, causing *“a dramatic fall in consumer spending”*. As we have seen the idea that the Great Recession was product of a collapse in consumption as a result of falling wages has been dismissed by D-L themselves, as we have seen.

D-L conclude from their analysis of the data that the Great Depression of the 1930s and the Great Recession of 2008 onwards cannot have been caused by Marx's law of profitability. Why? Well in the case of the Great Depression of the 1930s, D-L say that there was no rising organic composition of capital before 1929.

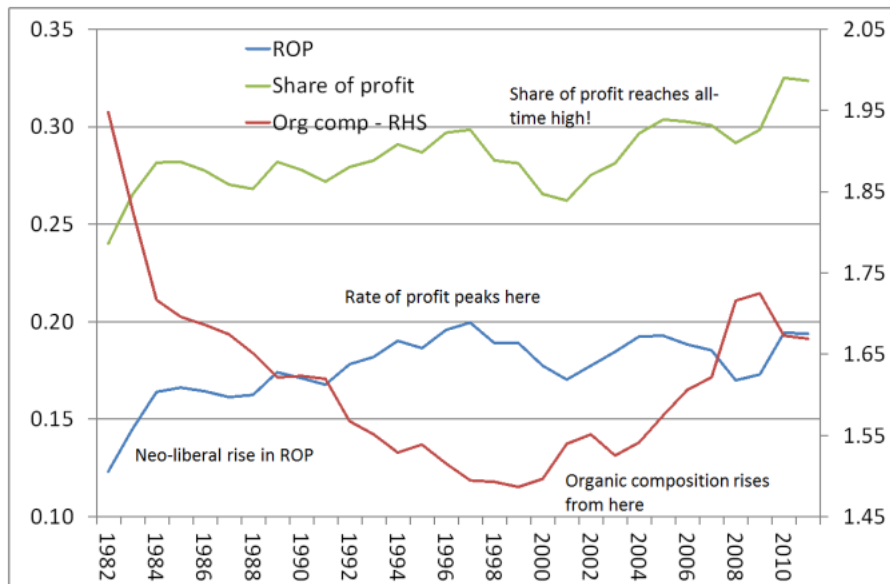
Well, I've looked at their data (see graph below) and it seems to me that the productivity of capital starts falling (i.e. a rising organic composition) from 1924 onwards and this also coincides with a peaking in the rate of profit. So for five years before the start of the Great Depression, the US rate of profit was falling.



As for the current crisis, if we use D-L's data, we can discern, as I have done on many occasions with my own data, two periods: first the neo-liberal period of 1982-97 when the rate of profit rose and the

<sup>20</sup> *The making of global capitalism: the political economy of the American Empire* by Leo Panitch and Sam Gindin, <http://www.versobooks.com/books/1527-the-making-of-global-capitalism>

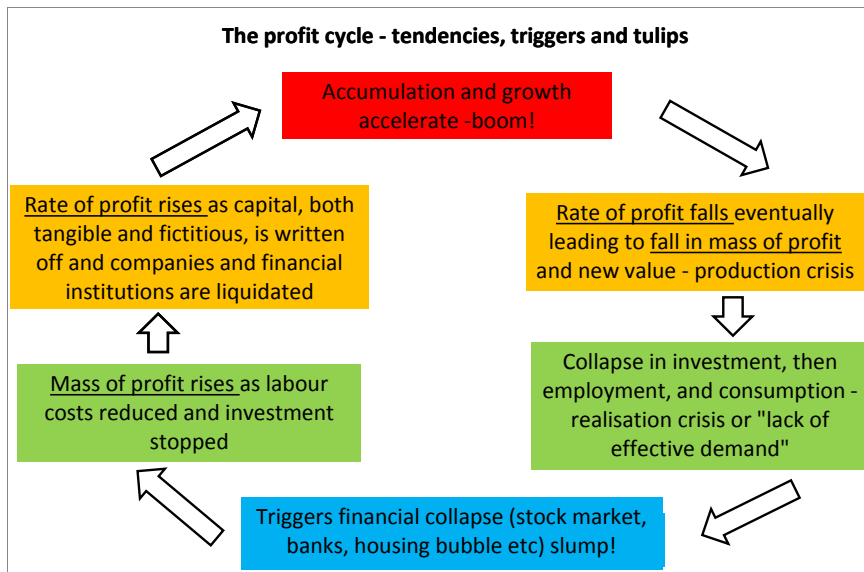
organic composition of capital fell, although interestingly, the share of profit did not change much. Then the period after 1997 when the rate of profit started falling (although not by much) while the organic composition of capital rose, exactly according to Marx's law 'as such'. The rate of profit did not fall much up to the point of the Great Recession because the share of profit rose to a record high. So the huge exploitation of the workforce compensated somewhat for the rising organic composition of capital. D-L's data confirm exactly my own data. And yet D-L argue that Marx's law of profitability is not relevant to the current crisis.



### Profitability and the downward cycle leads to crisis

Looking for a cause is scientific. But dialectically there can be causes at different levels, the ultimate (essence) and the proximate (appearance). The ultimate is found from the real events and then provides an explanation for the proximate. The crisis of 2008-9 like other crises has an underlying cause based on the contradictions between accumulation of capital and the tendency of the rate of profit to fall under capitalism. That contradiction arises because the capitalist mode of production is production for value not for use. Profit is the aim, not production or consumption. Value is created only by the exertion of labour (by brain and brawn). Profit comes from the unpaid value created by labour and appropriated by private owners of the means of production. The underlying contradiction between the accumulation of capital and falling rate of profit (and then a falling mass of profit) is resolved by crisis, which takes the form of collapse in value, both real value and fictitious. Indeed, wherever the fictitious expansion of capital has developed most is where the crisis begins e.g. tulips, stock markets, housing debt, corporate debt, banking debt, public debt etc. The financial sector is often where the crisis starts; but a problem in the production sector is the cause.

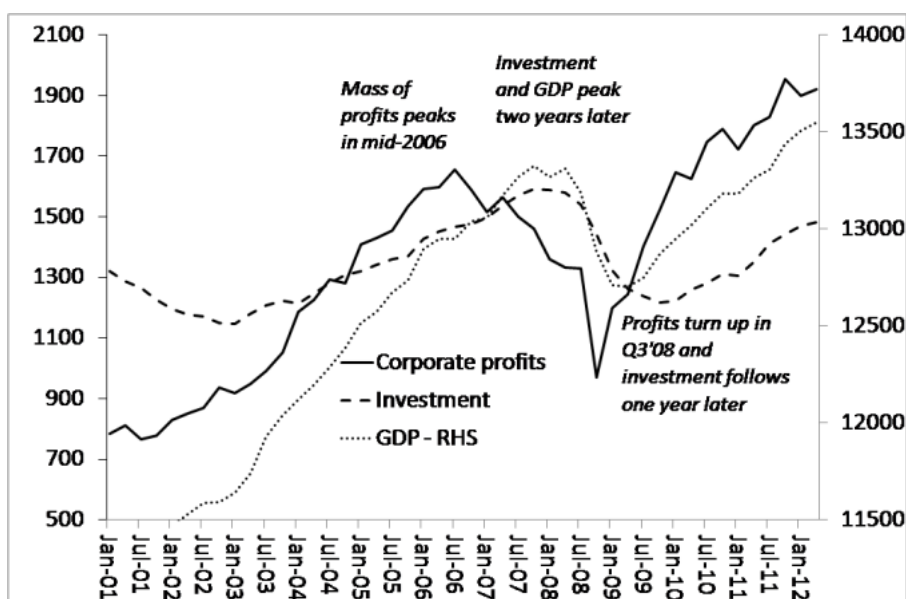
I have argued that Marx's law of the tendency of the rate of profit to fall provides the underlying cause of capitalist crises (the tendency). But let us now consider the proximate or immediate causes (the triggers) of crises. I think Marx's crisis theory can be outlined in a sequence of events in a cycle of profitability.



In recent paper, G Carchedi and I found that there is a lagged correlation between a fall in the overall rate of profit and capitalist slumps<sup>21</sup>. If we look at the UK economy, since 1963 there have been four major economic recessions or slumps: 1974-5, 1980-2, 1990-2 and 2008-9. In each recession, the rate of profit peaked and started to decline at least one year before the slump began. And each recession was accompanied (coincided) by a fall in the mass of profit for successive years.

Similarly, if we look at the US economy, there were five recessions or slumps after 1963: 1974-5, 1980-2, 1990-2, 2001 and 2008-9.8 In each case, the rate of profit peaked at least one year before, but on most occasions up to three years before. And on each occasion (with the exception of the very mild 2001 recession), a fall in the mass of profit led, or coincided with, a slump.

Contrary to Panitch and Gindin's account of the years before the credit crunch of 2007 and the Great Recession of 2008-9 above, US corporate profits were falling some two years before the recession began and investment dropped as a result before GDP contracted. And in the recovery, again it was profits that led investment and GDP up.



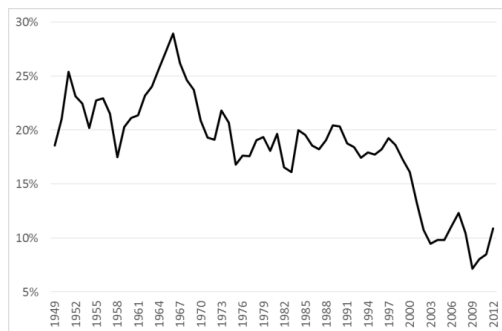
<sup>21</sup> Long Roots op cit

These conclusions are confirmed by other authors. For example, Tapia Granados<sup>22</sup> found that “data from 251 quarters of the US economy show that recessions are preceded by declines in profits. Profits stop growing and start falling four or five quarters before a recession. They strongly recover immediately after the recession. Since investment is to a large extent determined by profitability and investment is a major component of demand, the fall in profits leading to a fall in investment, in turn leading to a fall in demand, seems to be a basic mechanism in the causation of recessions.” Sergio Camara Izquierdo<sup>23</sup> also finds that “a significant cyclical decline of the profit rate has substantially preceded the last two recessions... the cyclical slump in the rate of profit must be seen as an important precipitating factor in the deepest economic downturn since the 1930s”.

Yes, there was rise in the rate of profit and the mass of profits from 2002 to 2006. But profitability was still in a downward cycle from 1997 and the rate and the mass of profits did start to fall from 2006 onwards.

And much of these profits were fictitious in nature. In a recent paper, Peter Jones<sup>24</sup> adjusted the official figures for profit for fictitious profits, namely those made by banks from lending to government (bond purchases) and from utilising the savings of workers (mortgages etc). Government spending that is financed by borrowing is recorded as output in NIPA. But it is really fictitious income. Jones goes through the NIPA accounts to deduct what he reckons are the components of this fictitious profit to come up with a measure of profit that best represents surplus value created in production and realised by the corporate sector.

When he puts this against net fixed assets, the result looks like this.



The credit and property boom from 2002 generated profits that could not eventually be realised, creating the conditions for a huge collapse in values. The trigger for the collapse was a fall in the mass of profits and the fictitious nature of those profits.

Each crisis can have its own trigger: the 1974-5 slump was triggered by high oil prices; the 1980-2 slump triggered again by high energy prices; the 1991 by a property slump; the 2001 by stock market hi-tech crash; and 2008-9 was preceded by a credit-fuelled bonanza in property, diversified through financial instruments of mass destruction (collateral debt obligations).

<sup>22</sup> Jose A Tapia Granados, *Does investment call the tune? and Empirical evidence and endogenous theories of the business cycle*, Research in Political Economy, May 2012, [http://sitemaker.umich.edu/tapia\\_granados/files/does\\_investment\\_call\\_the\\_tune\\_may\\_2012\\_forthcoming\\_rpe.pdf](http://sitemaker.umich.edu/tapia_granados/files/does_investment_call_the_tune_may_2012_forthcoming_rpe.pdf).

<sup>23</sup> Sergio Camara, <http://thenextrecession.files.wordpress.com/2012/11/izquierdo-rate-of-profit.pdf>

<sup>24</sup> Peter Jones (2013), [The Falling Rate of Profit Explains Falling US Growth](#)

## Debt matters: it's pro-cyclical!<sup>25</sup> (tulips)

*"History is rife with examples of bubbles and bursts. A prime example is the recent financial crisis that started in the summer of 2007; however, we have limited knowledge of how bubbles arise and how they can be prevented."* Dallas Federal Reserve paper, report [Globalization and Monetary Policy Institute Working Paper No. 167](#), entitled "The Boy Who Cried Bubble" by authors Yasushi Asako and Kozo Ued.

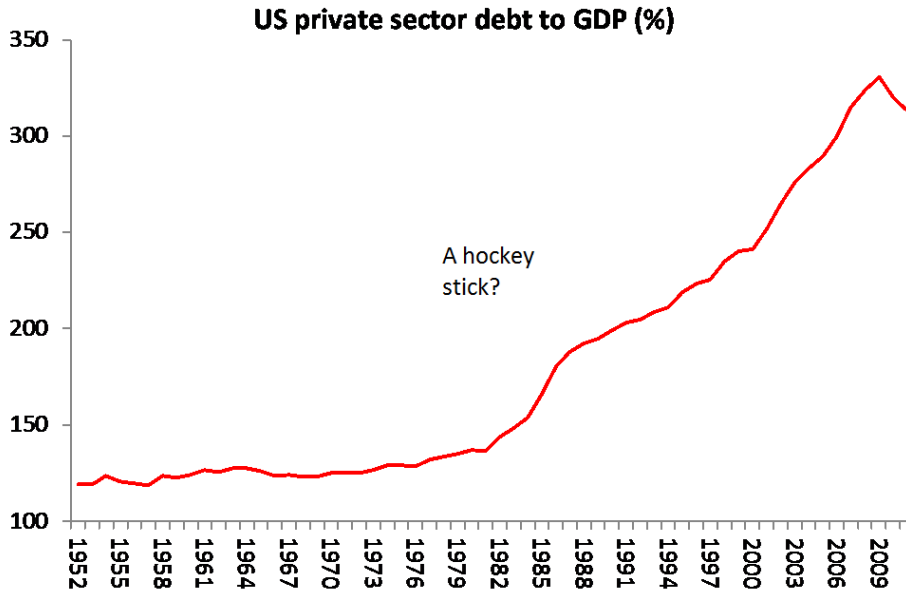
A fall in the rate of profit promotes speculation. If the capitalists cannot make enough profit producing commodities they will try making money betting on the stock exchange or buying various other financial instruments. The capitalists all experience the falling rate of profit almost simultaneously so they all start to buy these stocks and assets at the same time driving prices up. But when stocks and assets prices are rising everybody wants to buy them – this is the beginning of bubble on exactly the lines which we have seen them again and again since the Tulip Crisis of 1637.<sup>26</sup>

[Tulipmania](#) was a futures manipulation and options scheme (credit with leverage) accompanied by futures rules changes enacted by the Dutch Legislature in 1636. The classic description of Tulipmania appeared in Clarence Mackay's 1841 classic [Memoirs of Extraordinary Popular Delusions and the Madness of Crowds](#), "In 1634, the rage among the Dutch to possess them was so great that the ordinary industry of the country was neglected, and the population, even to its lowest dregs, embarked in the tulip trade." The normally sane Dutch bourgeoisie got carried away and bid up prices of tulip bulbs spectacularly in winter 1637, only to see them crash in spring. One bulb was [reportedly](#) sold in February 1637 for 6,700 guilders, "as much as a house on Amsterdam's smartest canal, including coach and garden," and many times the 150-guilder average income. As Earl A. Thompson, an economist at the University of California at Los Angeles, and Jonathan Treussard, a graduate student at Boston University, note in a [working paper](#), "the contract price of tulips in early February 1637 reached a level that was about 20 times higher than in both early November 1636 and early May 1637." So it was with the banks and property investors in the 2000s. Before the crash, there had been a massive build-up of private sector credit in the US.

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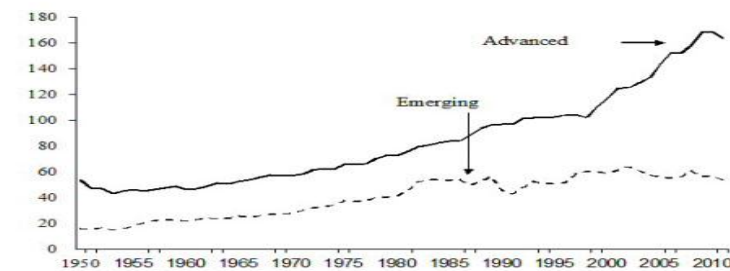
<sup>25</sup> M Roberts Debt matters <http://thenextrecession.files.wordpress.com/2012/11/debt-matters.pdf>

<sup>26</sup> M Roberts, The causes of the Great Recession (2010).



And in all the major economies...

Figure 4. Private Domestic Credit as a Percentage of GDP, 1950–2011 (22 Advanced and 28 Emerging Market Economies)



Sources: IMF, *International Financial Statistics*, and *World Economic Outlook*, various issues; Reinhart, Reinhart, and Rogoff, 2012, and sources cited therein.

**IV. HOW WILL THE DEBT BE REDUCED?**

**Lesson 3: Crisis resolution.** How different are advanced economies and emerging markets? Not as different as is widely believed.

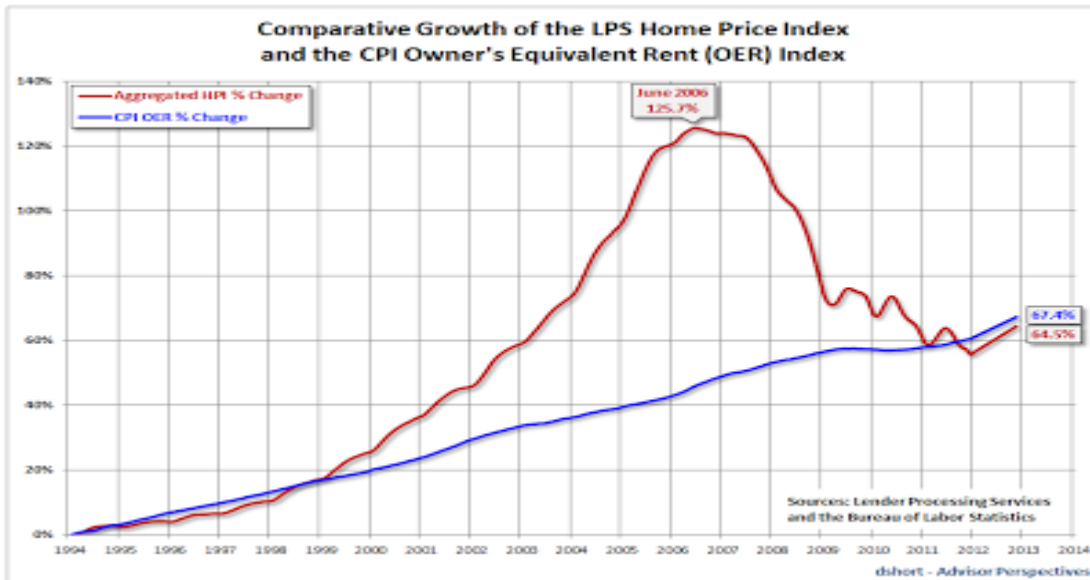
There are essentially five ways to reduce large debt-to-GDP ratios (Box 1). Most historical episodes have involved some combination of these.

**Box 1. The Elements of Debt Reduction**

1. Economic growth
2. Fiscal adjustment-austerity
3. Explicit (de jure) default or restructuring
4. Inflation surprise
5. A steady dose of financial repression accompanied by a steady dose of inflation.

The residential property boom in the US reached mega proportions. If, for example, the speculation takes place in housing this creates an option for workers to loan and spend more than they earn (more than the capitalists have laid out as variable capital) and in this way the realization problem is solved. But sooner or later bubbles burst when investors realize that the assets are not worth what they are paying for them. The realization problem reoccurs in an expanded form compared with before the bubble: now the workers have to pay back their loans and this with interest, they have to spend less

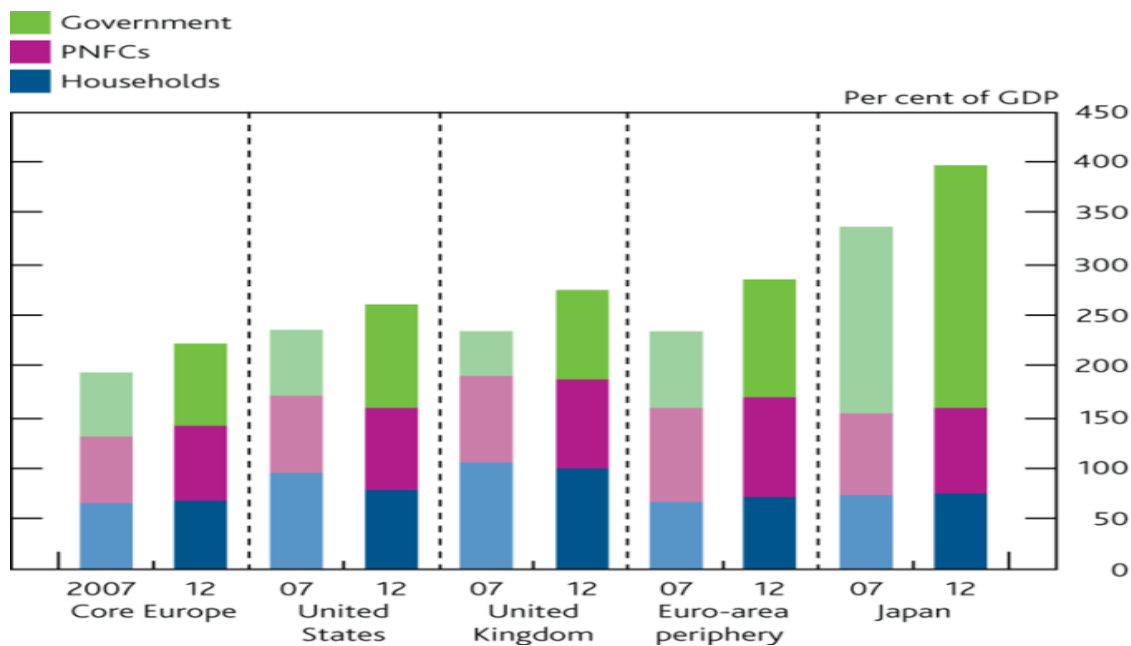
than they earn. The result is even greater overproduction than was avoided temporarily in the first place. While consumer credit only increases demand, producer credit also increases supply. The basic problem is still the fallen rate of profit which depresses investment demand. If the underlying economy were healthy an imploding bubble needs not cause a crisis, or at least only a short one. When workers and capitalists pay interests on their loans, this money does not just disappear, some finance capitalists collect them. If the total economy is healthy and the rate of profit is high then the revenue generated from interest payments will in one way or another be reinvested in production.



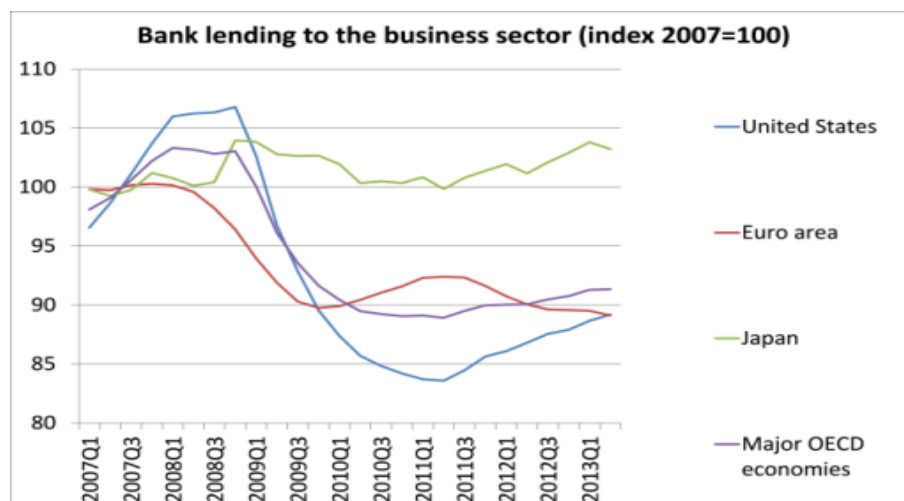
Actually, throughout the neoliberal period, debt rose and not just mortgage debt, but also corporate debt.



This increase in debt sustained growth for longer than the profitability in productive sectors justified. But once it could no longer be expanded, then it makes the period of recovery weaker and longer as deleveraging must take place.



As banks cannot lend....



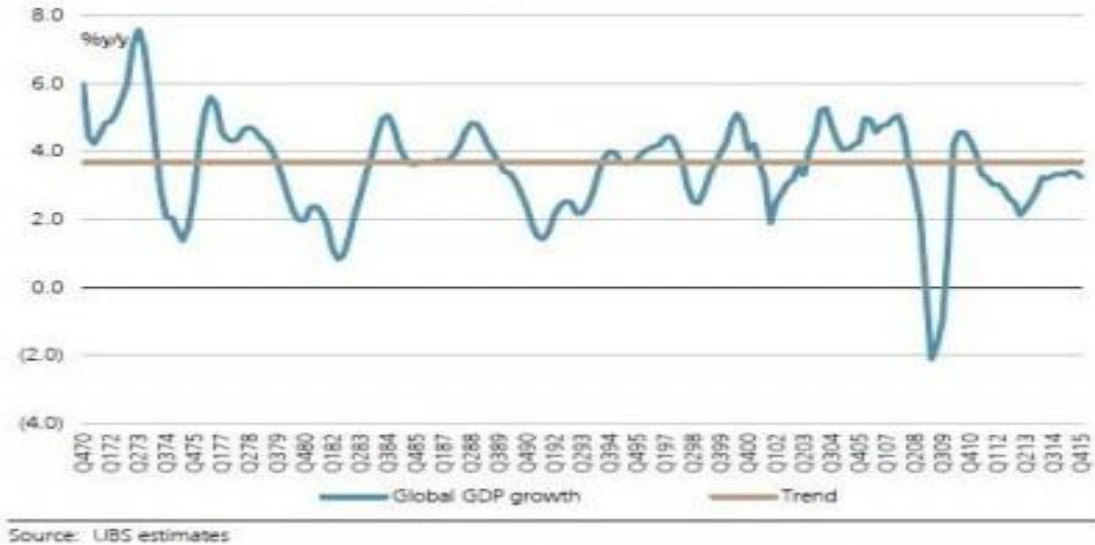
So this current recovery is more like a long depression similar to the 1873-97 or 1929-42. By a Long Depression, I mean economies growing consistently at well below their previous trend rates, with unemployment stuck at well above previous levels before the Great Recession, and disinflation (slowing inflation) turning into deflation (falling prices). Above all, it is an economic environment where investment in productive capital is way below previous average levels, with little sign of pick-up<sup>27</sup>).

Indeed, this depression is now reaching the so-called emerging economies, where, even with their large supplies of cheap labour and imported new technology, real GDP growth is also slowing.

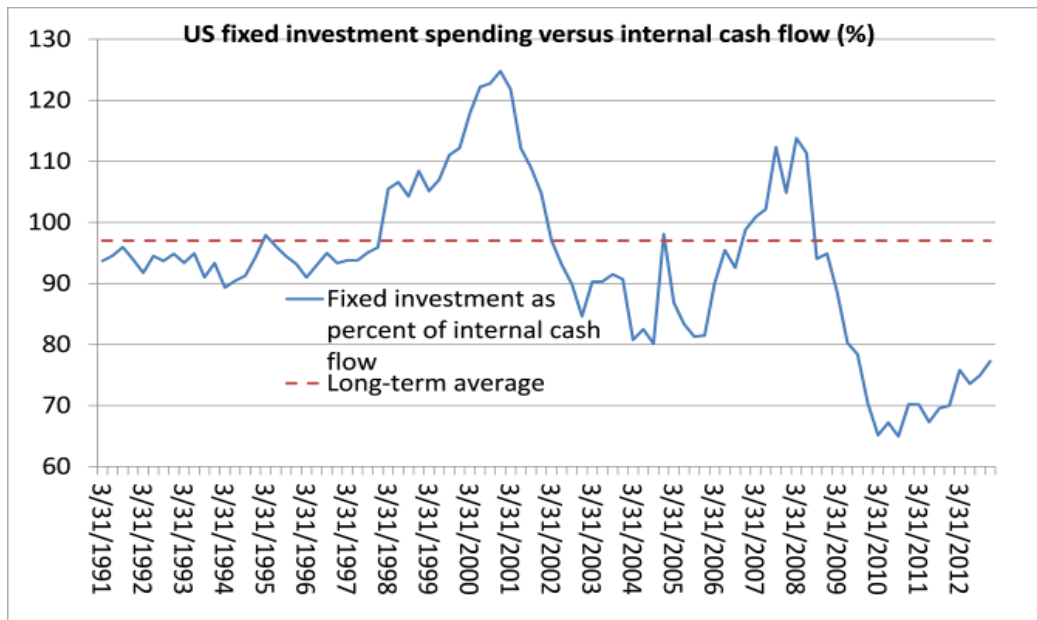
<sup>27</sup> (<http://thenextrecession.wordpress.com/2011/11/25/us-investment-strike/>)



**Figure 1: Global GDP growth versus trend**



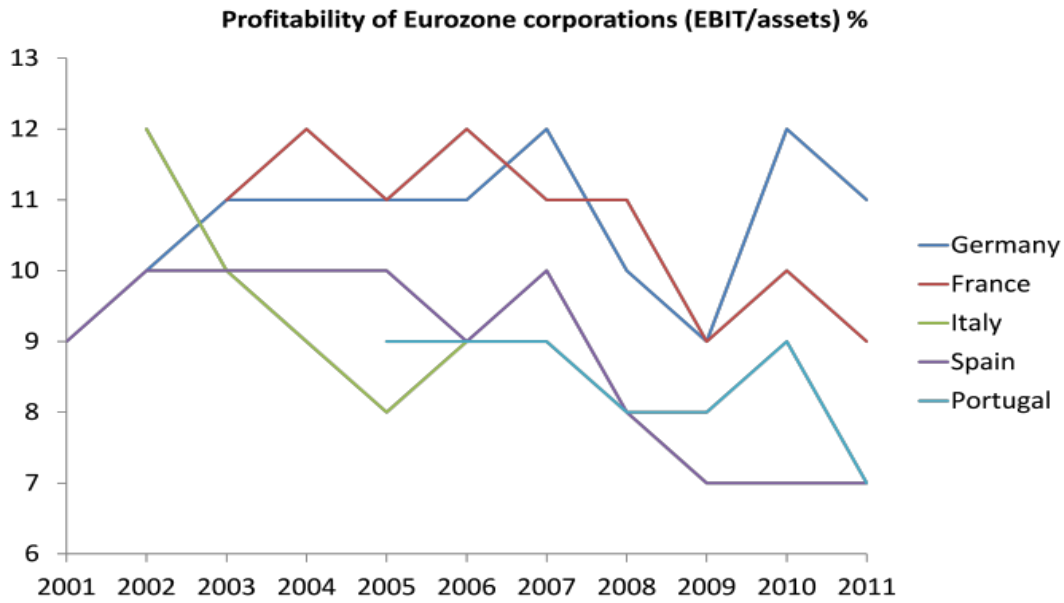
And companies won't invest.



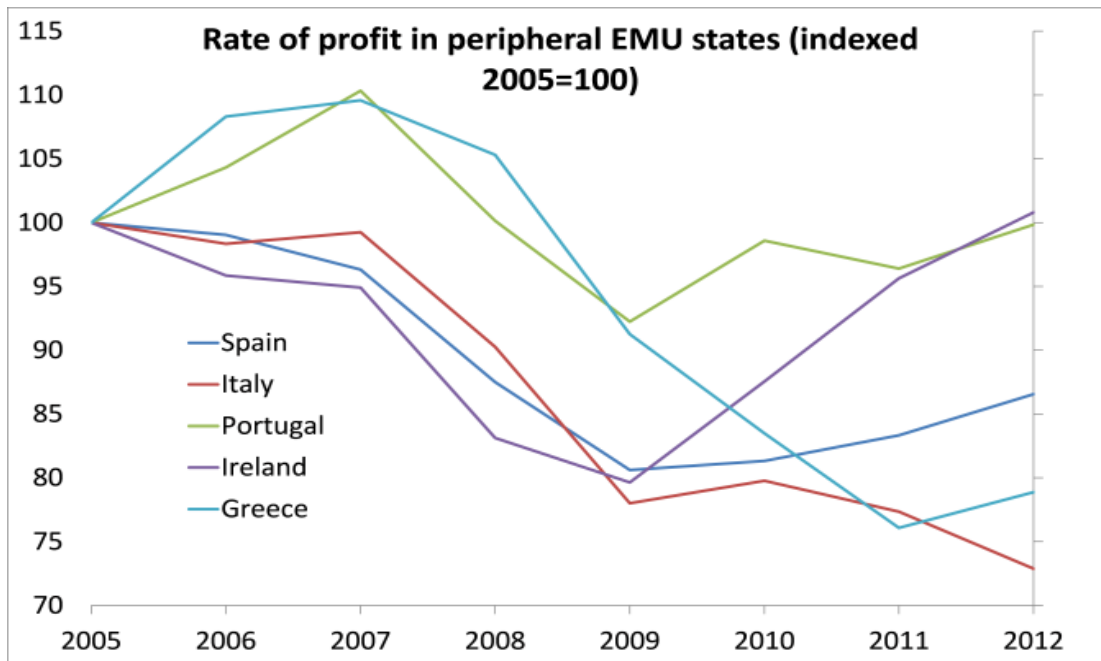
And it's not just due to the need to liquidate fictitious capital but profitability in the productive is also still too low. Take the recent IMF study.<sup>28</sup> The analysis finds that corporate profitability in those five countries remains well below the peak levels of 2007, with the exception of German companies. French corporate profitability was 18% below its 2007 level in 2011, Spain's was 30% below and Italy and Portugal was 22% below. Given that 2012 was year of recession or even depression for most Eurozone economies, profitability is unlikely to have recovered last year or even this year. Only German companies have done better since the trough of the Great Recession in 2009, but even so profitability there is still 8% below the 2007 peak.

<sup>28</sup> IMF report on Global Financial Stability (GFSR, <http://www.imf.org/External/Pubs/FT/GFSR/2013/02/pdf/text.pdf>),

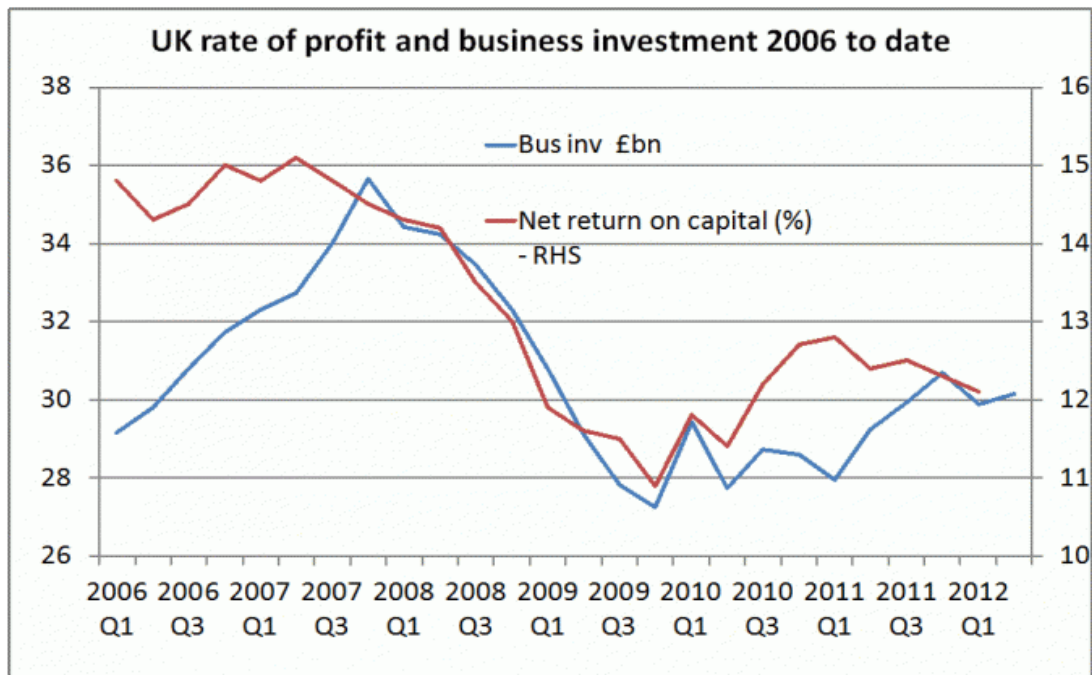
The IMF aggregated corporate earnings before tax and interest payments against assets based on firm-level annual data from the Bureau van Dijk's Amadeus database. The sample includes more than 3 million non-financial firms, both publicly traded and private, from France, Germany, Italy, Portugal and Spain.



The IMF's data confirm my own measures based on the EU's AMECO macro database.



The UK is similar. The overall net return on capital for UK non-financial companies is still below that of 2011 and some 20% below its peak at the end of 1997.



In my view, this Long Depression is thus caused by excessive debt that must be deleveraged and insufficient profitability in value creating sectors that must be raised before global capitalism can set off on a new cycle of prosperity (see the profit cycle graph). This is the real meaning of ‘secular stagnation’ that some Keynesian economists have recently latched onto.

### Profit cycles and long waves

Roberts 2009<sup>29</sup>: “There has not been such a coincidence of cycles since 1991. And this time (unlike 1991), it will be accompanied by the downwave in profitability within the downwave in Kondratiev prices cycle. It is all at the bottom of the hill in 2009-2010! That suggests we can expect a very severe economic slump of a degree not seen since 1980-2 or more” (written in 2005).

I want to finish by drawing my analysis of the causes of the Great Recession and the subsequent weak recovery, or Long Depression into a bigger picture. In my view, we should see the current period as a downward depressionary wave in the cyclical motion of capitalist production. It is a conjunction of various economic cycles in capitalism, with the profit cycle at his heart.

Any support for cycles in capitalism usually gets dismissed for two main reasons. The first is that statistics or data showing cycles are spurious and really just an expression of random shocks; or by extension, there are so few turning points in the longer cycles that no statistical significance can be applied. The second is that there is no theoretical model that can explain apparent economic cycles and, without that, the search for cycles is pointless. I think we can go some way to overcome these criticisms.

Marx thought there were cycles:

“All of you know that, from reasons I have not now to explain, capitalistic production moves through certain periodical cycles”, Karl Marx to Friedrich Engels, 1865. And Marx tried to estimate how long that cycle of accumulation was: “The figure of 13 years corresponds closely enough to the

<sup>29</sup> The Great Recession op cit.

*theory, since it establishes a unit for one epoch of industrial reproduction which plus ou moins coincides with the period in which major crises recur; needless to say their course is also determined by factors of a quite different kind, depending on their period of reproduction. For me the important thing is to discover, in the immediate material postulates of big industry, one factor that determines cycles' (05.03.58, CW40, 282).*

The key point for Marx was that *“the cycle of related turnovers, extending over a number of years, within which the capital is confined by its fixed component, is one of the material foundations for the periodic cycle [crisis] ... But a crisis is always the starting point of a large volume of new investment. It is also, therefore, if we consider the society as a whole, more or less a new material basis for the next turnover cycle’ (CII, 264).*

And Marx connected his theory of crisis to cycles of turnover of capital. Can we estimate how long the cycle of accumulation would be now? Well, the US Bureau of Economic Analysis provides data on the age structure of replacement for private non-residential fixed assets. And it shows that if the replacement of fixed assets is the model for explaining any cycles in capitalist accumulation, then the US cycle can be expected to be around 15-17 years.

And the idea of profit cycles is supported by clear evidence of a stock market cycle in all the leading financial centres. The US stock market cycle appears pretty much the same as the US profit cycle. Indeed, the stock market seems to peak in value a couple of years after the rate of profit does. This is really what we would expect, because the stock market is closely connected to the profitability of companies, much more than bank loans or bonds. When the rate of profit enters its downwave, the stock market soon follows, if with a short lag.

And now, new research has started to identify a credit cycle at least in the major capitalist economies with a duration of 16-18 years. Claudio Borio finds what he calls a ‘financial cycle’ using a composite of property prices (house prices to income) and changes in credit (credit to GDP)<sup>30</sup>. Borio is struck by the fact that the duration is longer than the ‘business cycle’. His financial cycle matches the length of the profit cycle. It appears to run inversely with the profit cycle at least in the US – namely that when profitability is its downward phase, the financial cycle is its upward phase. This suggests that capitalists look for unproductive investments like property to replace investment in production when profitability in productive assets falls. This is very relevant to understanding the relation between the productive and financial sectors of capitalism culminating in the Great Recession of 2008-9.

Can we talk about even longer cycles in capitalist production? Just as the capitalist profit cycle (in the US and possibly the major economies) appears to be spread over approximately 32-36 years from trough to trough and so does the stock market cycle, there also appears to be a cycle in prices that is about double that size, or around 64-72 years. This is the famous Kondratiev cycle. It is usually recorded with a length of about 50-55 years but I reckon that it has lengthened. Various reasons have been proposed for the lengthening of the cycle including demographics and government debt financing. The argument of my paper is that the K-cycle now follows much more closely the cycle in profitability as the capitalist mode of production has become dominant globally.

Interest rates are a very good proxy for the Kondratiev prices cycle. If we look at the period from 1946 again, the level of the US short-term interest rate (the Fed Funds rate, it is called, as set by the Federal Reserve Bank, America’s central bank), rose from 1946 to a peak in 1982 and then fell back

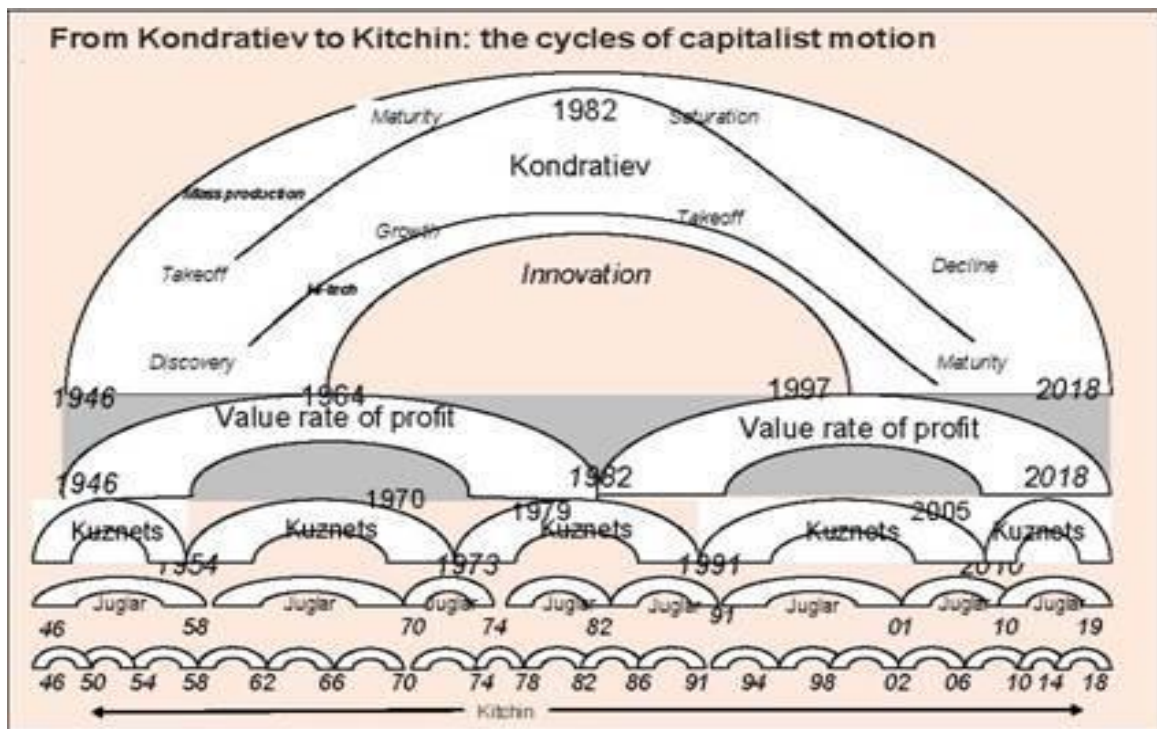
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<sup>30</sup> [The financial cycle and macroeconomics: What have we learnt?](#) Claudio Borio, BIS Working Papers, 2012

after that. That suggests a 36 year up and down phase for the Kondratiev cycle. And if the length of the K-cycle has reached 72 years, then the next trough is not due until 2018.

There are three more cycles of motion under modern capitalism: the cycle in real estate first identified by Kuznets and now taken up by Borio. This appears to be about 16-18 years. Then there is the cycle of GDP – the so-called business or Juglar cycle, which appears to be about 8-9 years. And then the shorter inventory or Kitchin cycle of about four years.

We can integrate these cycles into one picture for the mode of capitalist production in the 21st century. In other words, the long Kondratiev cycle of 64-72 years can be divided downwards to two profit (and stock market) cycles of about 32-36 years each, four Kuznets cycles of about 16-18 years each; eight Juglar cycles and 18 Kitchin cycles.



The profit cycle is key though. We are now in another profit downwave that should not bottom until around 2015. So output and employment slumps should be as severe and long-lasting as they were in 1974-5 and 1980-2. This profit downwave now coincides with the downwave in the Kondratiev prices cycle that started in 1982 and won't reach its bottom until 2018.

Can these cycles operate 'automatically' or do they require exogenous events to engender the turning points from up wave to down wave and vice versa? Ernest Mandel in his pioneering work in long waves suggested that exogenous events like wars or revolutions were necessary to turn a downwave into an upwave, although not the opposite.<sup>31</sup>

But I ask: would the Great Depression of the 1930s have carried on forever if there had been no world war? And did not the 19<sup>th</sup> century Long Depression come to an end without any visible world war or revolutionary wave? And can we expect this current depression to last forever unless we have a major war?

<sup>31</sup> E Mandel, Long waves of capitalist development, 1980

The other issue is whether Marx's theory of crises is just one of recurrent and even regular crises, of booms and slumps in capitalist accumulation. Or is it more than that (or alternatively), a theory of breakdown, namely an explanation of how capitalism cannot continue indefinitely (even if it has regular crises), but must reach its limits as a system of social organisation, then break down and be replaced by a new system?

I don't think either a cyclical or breakdown theory of crisis is the full story. I prefer a schema that basically combines both the crisis and breakdown model<sup>32</sup>. So there are continual recurring crises or cycles that spin round the secular trend for capitalist development that spreads over centuries.

In my view, we are now in the winter phase within the downward section of the fourth Kondratiev cycle. In each winter phase of the K-cycle, we get a depressionary environment for capitalism: Winter 1800-1815; Winter 1873-97; Winter 1929-46; Winter 1997-2018?

Marx said there is no permanent crisis. By this he meant that if values were sufficiently destroyed in a slump, profitability of capital would be restored and accumulation would resume. If the working class was unable to take the levers of power and replace the capitalist mode of production with planned production owned in common, then the whole 'crap' would start again.

This current winter will come to an end – in my view, not through world war. Failing a successful revolution in a major capitalist economy, capitalism will eventually enter a new spring with a recovery in profitability and new growth based on new technologies already 'discovered' and just waiting for development. Of course, each time, the system finds it more difficult to develop that new technology as it becomes more and more unproductive in the capitalist sense. But that is another story.

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<sup>32</sup> (see my post, <http://thenextrecession.wordpress.com/2012/09/12/crisis-or-breakdown/>)