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It's a Depression

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> For it is a possibility that the duration of the slump may be much more prolonged than most people are expecting and much will be changed both in our ideas and in our methods before we emerge. Not, of course, the duration of the acute phase of the slump, but that of the long, dragging conditions of semi-slump, or at least sub-normal prosperity, which may be expected to succeed the acute phase.
>
> — John Maynard Keynes, 1931

THE PROPOSITION OF THIS SHORT PAPER is that the Great Recession of 2008–9 that devastated the world capitalist economy has not been followed by a recovery in investment and output in the "normal" way, as it did after the simultaneous international recession of 1974–5 or after the deep slump of 1980–2. Instead it has morphed into a Long Depression, similar to the long depression of 1873–97 experienced by the major economies in the United States and Europe then, or the Great Depression of the 1930s. If this is correct, it leads us towards a different analysis of the stage that capitalism is passing through than that of a "normal recession."

The trajectory of world real GDP growth and investment has taken what I describe as a square-root shape. A relatively high trend growth rate was interrupted by a sharp drop (slump), then a sharpish recovery, but the growth resumed at a much lower level than before. Schematically — and in reality — it would look like this (Figure 1).

I first characterized the state of world capitalist economy as a Long Depression in my book, *The Great Recession*, in 2009 (Roberts, 2009).

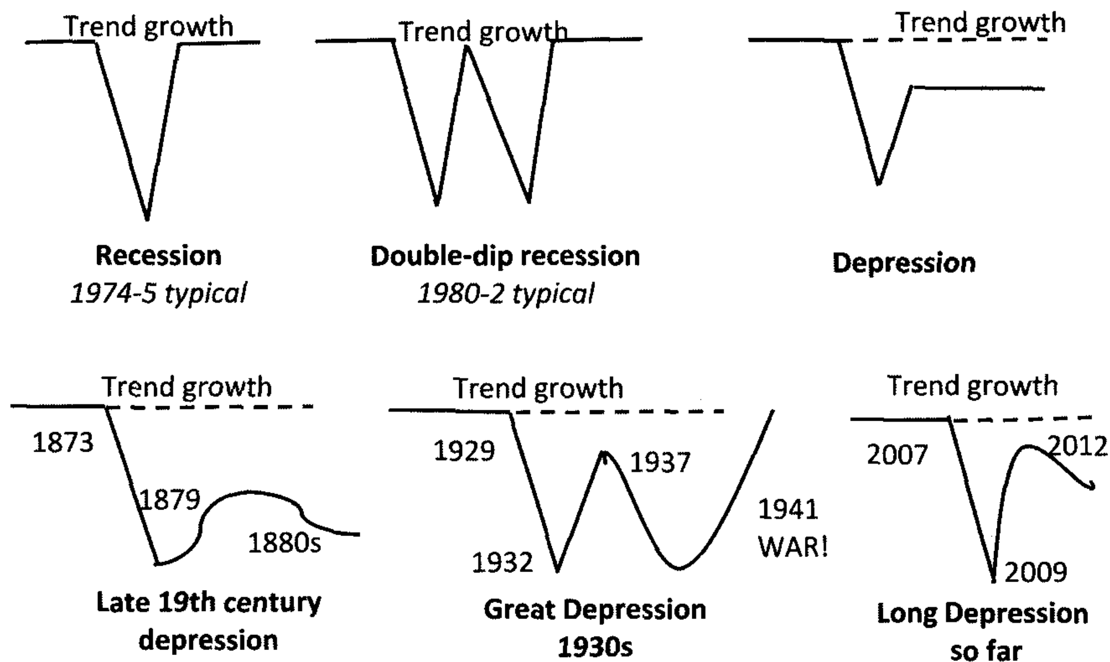

Figure 1. A Schematic View of Recessions and Depressions
Source: Author

Some other economists also adopted this characterization shortly thereafter. In 2010, Paul Krugman said:

Recessions are common; depressions are rare. As far as I can tell, there were only two eras in economic history that were widely described as "depressions" at the time: the years of deflation and instability that followed the Panic of 1873 and the years of mass unemployment that followed the financial crisis of 1929–31. Neither the Long Depression of the 19th century nor the Great Depression of the 20th was an era of nonstop decline — on the contrary, both included periods when the economy grew. But these episodes of improvement were never enough to undo the damage from the initial slump, and were followed by relapses. We are now, I fear, in the early stages of a third depression. It will probably look more like the Long Depression than the much more severe Great Depression. But the cost — to the world economy and, above all, to the millions of lives blighted by the absence of jobs — will nonetheless be immense. (Krugman, 2010.)

Anwar Shaikh also wrote:

The general economic crisis that was unleashed across the world in 2008 is a Great Depression. It was triggered by a financial crisis in the US, but that was not its cause. This crisis is an absolutely normal phase of a long-standing

recurrent pattern of capitalist accumulation in which long booms eventually give way to long downturns. (Shaikh, 2010, 44.)

More recently, John Weeks has presented a paper that distinguishes between generalized and partial crises (Weeks, 2014). Weeks argues that the capitalist mode of production has had very few of what could be called proper crises. Weeks reckons that only the Great Depression of the 1930s and the recent Great Recession could be considered generalized crises ("episodes of severe contraction") that affected the world capitalist economy for any length of time or to any depth. Other so-called crises were merely mild recessions or financial crashes that were short and limited to the national economy concerned.

This picture of developments in the major capitalist economies since 2009 has increasingly gained traction even among mainstream economists. As Noah Smith, a Keynesian blogger, put it:

> Modern macroeconomists think that recessions and booms are random fluctuations around a trend. These fluctuations tend to die out — a deep recession leads to a fast recovery, and a big expansion tends to evaporate quickly. Eventually, the trend re-establishes itself after maybe five years. No matter what happens — whether the central bank lowers interest rates, or the government spends billions on infrastructure — the bad times will be over soon enough, and the good old steady growth trend will reappear. . . . But what if it's wrong? What if recessions deal permanent injuries to an economy? (Smith, 2015.)

Smith pointed out that even right-wing economists have criticized the idea that after every recession comes a boom. For example, leading macroeconomist Greg Mankiw, back in 2009 (Mankiw, 2009) reckoned that the Great Recession would herald a lost decade of output as major economies failed to get back to the trend growth rate before the crisis. Ironically, as Smith says, Krugman, a liberal Keynesian economist, was among the optimists. He was wrong and Mankiw was right.

Indeed, the current rate of real GDP growth in the United States is still one-third below the long-term average rate in the postwar period of 3.3% a year, while U. S. GDP per capita is 9.8% below the pre-recession trend (Figure 2).

Another leading Keynesian, Brad Delong, also noticed that the United States "did not experience a rapid V-shaped recovery carrying it back to the previous growth trend of potential output" (Delong,

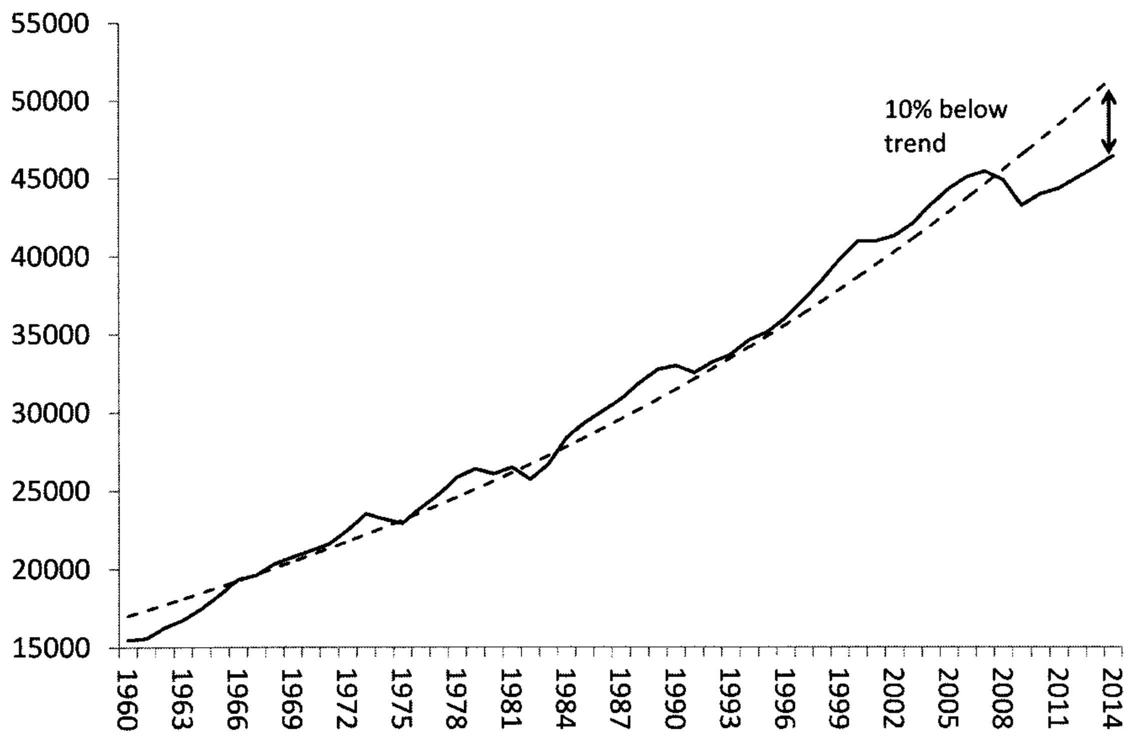

Figure 2: U.S. Per Capita Real GDP (2005 Dollars) Against Exponential Trend, 1960–2014

Current GDP is 1.48% above the 2007 peak and 9.8% below the trendline.
Source: www.advisorperspectives.com/fred

2014). The trough in the Great Recession of 2008–9 saw U. S. real GDP 11% lower than the 2005–2007 trend. Today, the trend stands 16% below. And cumulative output losses relative to the 1995–2007 trends now stand at 78% of a year's GDP for the United States, and at 60% of a year's GDP for the Eurozone.

Delong continues:

A year and a half ago, when some of us were expecting a return to whatever the path of potential output was by 2017, our guess was that the Great Recession would wind up costing the North Atlantic in lost production about 80% of one year's output — call it $13 trillion. Today a five-year return to whatever the new normal might be looks optimistic — and even that scenario carries us to $20 trillion. And a pessimistic scenario of five years that have been like 2012–2014 plus then five years of recovery would get us to a total lost-wealth cost of $35 trillion.

He concludes: "At some point we will have to stop calling this thing 'The Great Recession' and start calling it 'The Greater Depression'."

The U. S. Congressional Budget Office (CBO) reckons that U. S. real GDP will never return to its pre–Great Recession growth path. "The projected decrease in potential GDP is unprecedented, as almost all post-war U. S. recessions, post-war European recessions, slumps associated with European financial crises, and even the Great Depression of the 1930s, were characterized by an eventual return to potential GDP" (CBO, 2015). They call this a *"purely permanent recession."* The CBO reckons that the U. S. trend growth rate will slow to just 1.7% and will never be above 2% a year for the foreseeable future.

David Papell and Ruxandra Prodan find that deep recessions after a financial crash can take up to nine years before growth returns to trend (Papell and Prodan, 2015). But this time it is different — it's even worse.

The OECD (2015) presents a dark picture for global capitalism:

> The global economy continues to run at low speed and many countries, particularly in Europe, seem unable to overcome the legacies of the crisis. With high unemployment, high inequality and low trust still weighing heavily, it is imperative to swiftly implement reforms that boost demand and employment and raise potential growth. The time to act is now. There is a growing risk of persistent stagnation, in which weak demand and weak potential output growth reinforce each other in a vicious circle.

Where's the Profit in This?

In none of these mainstream explanations of the Long Depression is there a mention of what is happening to the profitability of capital, although the dominant mode of production in the world economy is one of production for profit. Of course, this is no accident. If mainstream economics were to consider an explanation of the depression based on the profitability of capital it would suggest that capitalism had a chronic problem of recurrent and regular crises that are only resolved through slumps in production and at the expense of the living standards of the majority.

This paper argues that the world capitalist economy has entered a long depression and has not recovered from the Great Recession in the "normal" way, because the profitability of capital in the major economies has not recovered. Indeed, global profitability is at all-time low. The Marxist theory of crisis argues that there is a tendency for the rate of profit to fall over time as capitalism expands and capital accumulates. This tendency

can be counteracted for periods of time, by higher rates of exploitation of labor and by faster innovation. But the tendency will eventually apply in lowering profitability. This law of the tendency of the rate of profit to fall, Marx reckoned, was the most important law of political economy. It was both a secular tendency and showed that capitalism was a transitory mode of production in human social organization with a use-by date; and it also generated cyclical fluctuations in output and employment, so that capitalist production was not harmonious but punctuated by violent slumps (Carchedi and Roberts, 2013a).

If we look at the movement of the rate of the profit in the major economies over the last 150 years since capitalism has been the dominant mode of production globally, the reason for the current long depression becomes clearer.

Figure 3 — the simple mean average world rate of profit from the work of Esteban Maito (Maito, 2014), as interpreted by me — shows that global profitability is in a downphase, similar to the fall in profitability experienced from 1870 to the end of the 19th century and in the Great Depression of the 1930s.

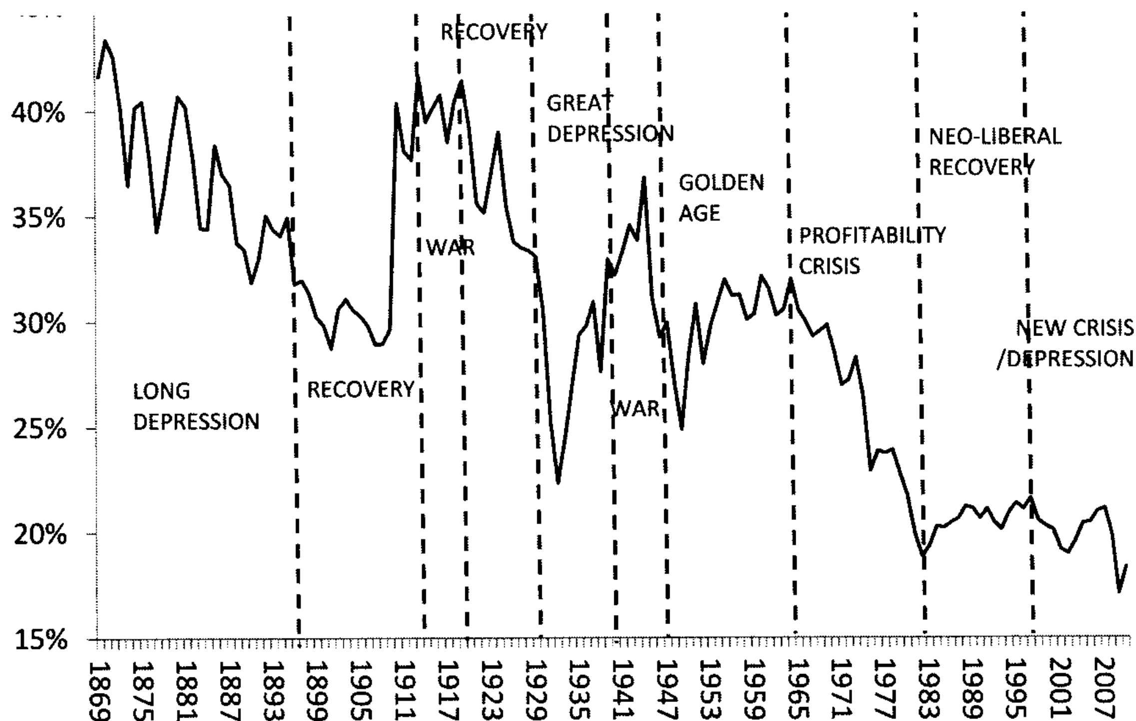

Figure 3: A World Rate of Profit (Simple Mean), %, from Maito (2001), with Author's Interpretation

Source: Maito, 2014; adapted by author

In the most important capitalist economy, the United States, the rate of profit has been in secular decline since the end of the Second World War. There was a "Golden Age" from 1946 to 1965, when profitability held up (at least on the current cost measure), but then there was a period of sharply falling profitability (the crisis period) from 1965 to 1980–2. From 1982 to 1997 there was a significant revival in profitability (on a current cost basis) and a small pick-up, or end to the decline (on a historic cost basis) — the neoliberal period, if you like. From 1997 on, the U. S. rate of profit entered a downward phase. Since the end of the Great Recession, profitability revived from lows in 2009 but is still below the level reached in 1997. And it fell in 2014.

Marx's law of the tendency of the rate of profit to fall is just that. The rate of profit in a capitalist economy will tend to fall over time. But there are periods when counteracting factors come into play, so the tendency to fall does not materialize in an actual fall for a period of time. Thus you can get a profit cycle of falling profitability followed by a period of rising profitability and then a new fall, all within a secular process of decline. The U. S. rate of profit in the postwar period exhibits just that, with a 32–36-year cycle from trough to trough (Roberts, 2009).

Marx's law says that the rate of profit will fall because there will be a rising organic composition of capital: the value of constant capital — machinery, plant and raw materials — will rise faster than variable capital — wages and benefits paid to the employed workforce. The U. S. data confirm that. There is strong inverse correlation (–0.67) between the organic composition of capital and the rate of profit. The organic composition of capital rose 20% from 1946 to 2014 and the rate of profit fell 20%. In the period when profitability rose, from 1982 to 1997, counteracting factors came into play, in particular, a rising rate of exploitation (surplus value) and a cheapening of the value of constant capital that led to a fall in the organic composition. In that period, the rate of surplus value rose 13% and the organic composition of capital fell 16%. The rise in the rate of profit from 1980 to 2014 was two-thirds due to a rise in exploitation of labor during the neoliberal period and only one-third due to cheaper technology (Roberts, 2011). Again this supports Marx's law.

Marx argued that slumps in capitalist production come about when profitability falls to such a level that the cost of new investment in labor and technology rises more than the profits gained, so that

the mass of profit begins to fall. Once that starts to happen, the weakest companies begin to make huge losses and so lay off labor and stop investing. This downturn in employment and investment then cascades through an economy, generating an overall crisis in production. Then any debt liabilities that had been racked up in order to invest, or to speculate in the stock market or in real estate to boost profitability, can not be paid and the profit crisis triggers a financial crisis. In turn, this financial crisis brings about an even greater fall in investment and production.

This Marxist explanation differs from the Keynesian explanation. The latter reckons that investment is autonomous and responds basically to relative "confidence" in the prospects of businesses, to "animal spirits," so that present profits are determined by current investment and investment in the near past. The Marxist view is that investment depends on profitability, so that movements in investment respond to previous movements in profits.

Keynes Versus Marx on Depressions

Yanis Varoufakis (Varoufakis, 2012) criticizes Marx's theory of crises as failing to explain depressions as opposed to slumps:

> Marx told the story of redemptive recessions occurring due to the twin nature of labour and giving rise to periods of growth that are pregnant with the next downturn which, in turn, begets the next recovery, and so on. However, there was nothing redemptive about the Great Depression. The 1930s slump was just that: a slump that behaved very much like a static equilibrium — a state of the economy that seemed perfectly capable of perpetuating itself, with the anticipated recovery stubbornly refusing to appear over the horizon even after the rate of profit recovered in response to the collapse of wages and interest rates.

Apparently, Keynes provides a better explanation of depressions.

John Weeks argues that breakdown in the circuit of capital and realization of money is the problem, which has nothing to do with the accumulation of value in the production process, as advocated by the "falling rate of profit" theorists (Weeks, 2014). As he puts it: "The typical 'falling rate of profit' mechanism fails to get out of the starting gate as a candidate for generating cross-country crises, much less global ones." This is because Marx's law of a rising organic composition

of capital would only generate a gradual fall in profitability and there is no mechanism that decides "a critical value" of profit that could provoke a sudden collapse in production or investment or its simultaneous spread globally.

But the evidence for the Marxist view is strong. Indeed, a causal connection can be found between the movement of profitability, profits and slumps in investment and GDP (Tapia Granados, 2015; Kothari, Lewellen, and Warner, 2015).

It's true that many financial crises are not accompanied by a slump or economic recession, as in the stock market crash of 1987, cited by Weeks as an example. But in that case, profitability in the major economies, including the United States, was on the rise. So the crash was short-lived and quickly reversed. But that was not the case in 1974–5, the first worldwide simultaneous slump, triggered by the oil price jump, but after a decade or more of a profitability slide; or in 1980–2, again triggered by energy prices, but again after another decline in profitability.

For example, Jose Tapia Granados found that in each of the five major recessions in the postwar period, profitability was falling after reaching a peak at least one or two years earlier. Indeed, peaks in the share of profits before taxes are observable in 1973 before the first oil crisis, in 1978 before the second oil crisis, in 1988 before the Eastern Europe crisis, in 1997 before the Asian crisis, and in 2006 before the Great Recession (Tapia Granados, 2014). Tapia Granados also found that over 251 quarters of U. S. economic activity from 1947, profits started declining long before investment did, and that pre-tax profits can explain 44% of all movement in investment, while there is no evidence that investment can explain any movement in profits (Tapia Granados, 2012).

And Guglielmo Carchedi and I (Carchedi and Roberts, 2013a) found that profits fell for several quarters before the U. S. economy went into a nosedive. U. S. corporate profits peaked in early 2006 and then fell (that's the absolute amount, not the rate of profit, which peaked earlier in 2005). From its peak in early 2006, the mass of profits fell until mid-2008, made a limited recovery in early 2009 and then fell to a new low in mid-2009. After that, the recovery in profits began and the previous peak in nominal dollars was surpassed in mid-2010.

What was the reaction of investment to this movement in U. S. profits? When U. S. corporate profit growth started to slow in mid-2005

and then fell in absolute terms in 2006, corporate investment went on growing for a while as companies used up reserves or increased borrowing in the hope that profits would be restored. But when that did not materialize, investment growth slowed during 2007 and then fell absolutely in 2008, at one point falling at a near 20% year-on-year rate. Profits started to recover at the end of 2008, but investment did not follow for a year (Figure 4). It was the same for GDP. GDP peaked well after profits did and recovered after profits did.

The movement of profits leads the movement of investment into slumps, not vice versa. Profits were falling well before the credit crunch began. So the crisis was not due to a lack of "effective demand," but followed the Marxist law of profitability, even if the trigger for the slump was in the financial sector.

Rather than dismiss Marx's most important law of political economy as irrelevant to a causal explanation of crises and depressions, the aim of future research should be to link the law of profitability with other aspects of capitalist economic development, including credit, the financial sector and imperialism.

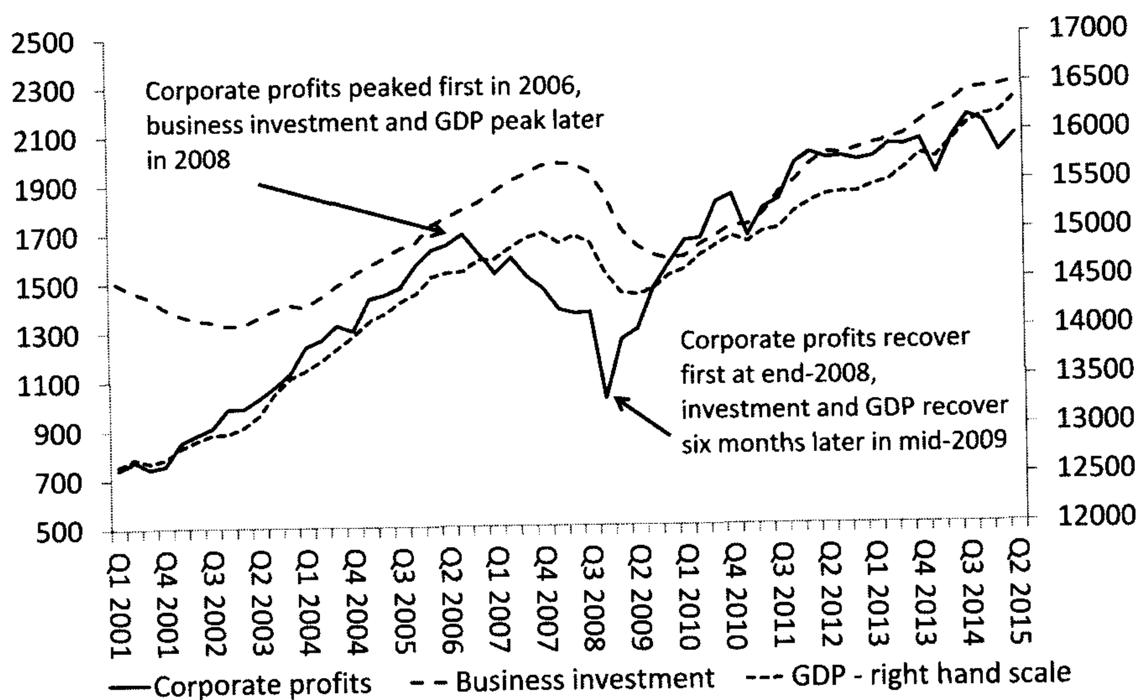

Figure 4: Profits Call the Tune: U. S. Corporate Profits, Business Investment, and Real GDP ($bn)

Source: BEA, Author's calculations

Profit Cycles

At the heart of recessions and depressions is the underlying profit cycle (Roberts, 2013a). There are various cycles that can be identified in modern capitalism to explain why capitalism has experienced a deep slump and an ensuing Long Depression.

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" (Marx, 1989, 504). And Marx tried to estimate how long that cycle of accumulation was:

> The figure of 13 years corresponds closely enough to the 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. (Marx, 1983, 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" (Marx, 1967, 264). So Marx connected his theory of crisis to cycles of turnover of fixed capital.

Can we estimate how long the cycle of accumulation would be now? Well, the U. S. 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 U. S. 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 centers. The U. S. stock market cycle appears pretty much the same as the U. S. profit cycle, although slightly different in its turning points. 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 (Borio, 2012) finds what he calls a "financial cycle" using a composite of property prices (ratio of housing prices to income) and changes in credit (ratio of credit to GDP). Borio is struck by the fact that the duration is longer than the "business cycle." Interestingly, his financial cycle matches the length of the profit cycle identified above. It appears to run inversely with the profit cycle (at least in the United States): 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.

There is evidence for profit cycles lasting 32–36 years from trough to trough and in the longer prices of production cycle (lasting 54–72 years), named after the Soviet economist Kondratiev (Kondratiev, 1925). These can be connected to shorter cycles (the Kuznets construction cycle, Juglar production cycle and Kitchin inventory cycle) (Roberts, 2009). In turn, the Kondratiev long cycle can be linked to the life cycles of key "clusters of innovation" (Figure 5).

The Kondratiev cycle can be divided by the profit cycle into four sections or "seasons" (Roberts, 2013a). We start with the spring season, when profitability is in an upward phase and so are prices of production. This spring season is a period of significant economic recovery for capitalism, in which economic recessions or slumps are small, infrequent and short-lived. Next is the summer season, in which prices keep rising but profitability falls. In this summer season, capitalism suffers more slumps of an increasingly deeper nature. The autumn season follows, with prices of production having peaked and beginning to fall. There is disinflation, but profitability rises. In this autumn season, recessions are few and short-lived, but the pressure is on wages as prices are hardly rising. Finally, in the winter season, we enter a period of depression in prices and falling profitability. This is a really bad period for capitalism.

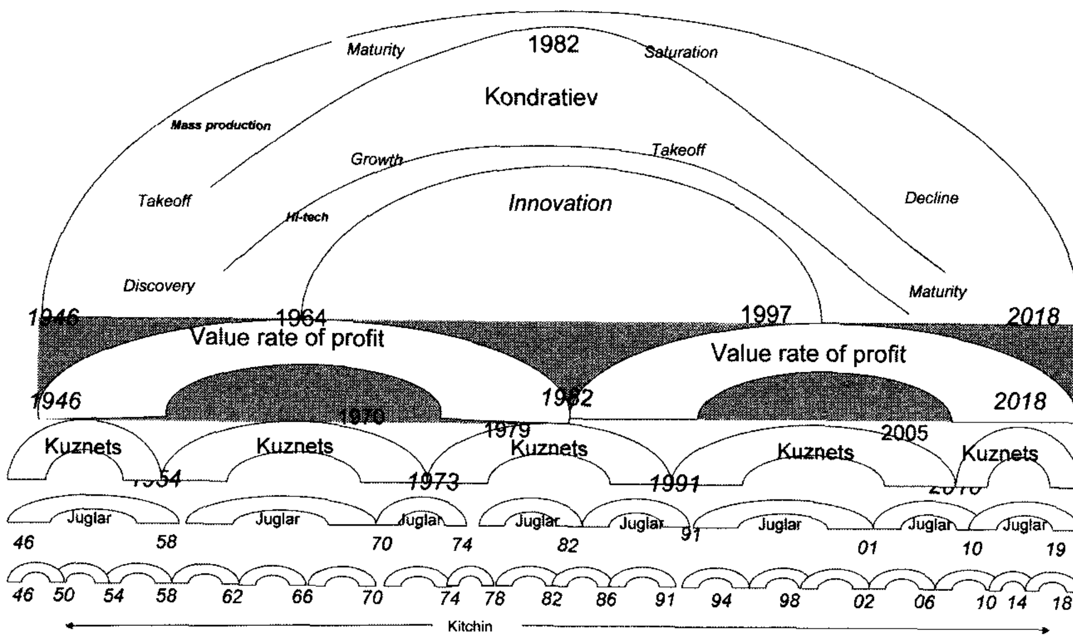

Figure 5: Cycles of Profit, Innovation and Capital
Source: Author

In the Kondratiev cycle, there was a winter season in the British capitalist economy from 1871–92, which coincided with falling profitability, not dissimilar to the fall in profitability in the U. S. economy since 1997. The next winter season in the Kondratiev cycle was 1929–46, and now we are in another winter season that began about 1997–2000 and should last until 2016–18. In this context, the Great Recession of 2008–9 is part of the general depressionary winter season for capitalism that we are still in.

The profit cycle is key, though. The reason global capitalism is in a depression and why there were depressions in the late 19th century and in the 1930s and not just simple "recessions" is that the profit downwave now coincides with the downwave in the Kondratiev prices cycle that started in 1982 and won't reach its bottom until 2018 (Shaikh, 2014).

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