

Recessions, depressions and recoveries

Robert McKee (aka Michael Roberts)

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INTRODUCTION

This paper argues that there is a distinction between economic recessions and depressions and this distinction helps to explain why economic recovery can be weaker and take longer. It will attempt to define more accurately the difference between a ‘normal’ economic recession that capitalism experiences at regular and recurring intervals and a depression where a normal recovery to previous or higher trend growth does not occur and what called been called stagnation ensues for a decade or more. On this definition, there have been only three such depressions in capitalist economies in the last 150 years, 1873-93; 1929-42 and 2008 onwards.

The paper argues that depressions are caused by the failure of business investment to recover to previous levels of growth, as they normally do in recessions. It proposes that weak business investment growth is a product of the level of and growth in the profitability of capital in an economy as well as the size and growth in the level of private sector debt. A combination of low profitability and or slowing or negative profitability growth combine high levels of debt will keep business investment below pre-crisis trend growth and thus perpetuate a depression.

This proposition is based on Marx’s law of the tendency of the rate of profit to fall and his analysis of debt as fictitious capital. This Marxist view is counterposed to that of mainstream economics that consider crises as just a temporary shock to the growth process or caused by a liquidity trap in the financial sector or a lack of demand, in particular, a lack of consumer demand. Further it considers the argument that the weak recovery or stagnation is related to government policies, in particular, fiscal austerity. It finds little evidence that fiscal austerity is the cause of the current depression, either in the US, Europe or Japan. It offers an alternative to the efficacy of the Keynesian multiplier (government spending as a driver of economic growth) as a guide, namely the Marxist multiplier (profitability as the driver of growth).

The paper offers empirical evidence on the nature of the current depression since 2008, that is it is based on weak business investment, not consumption. And weak business investment results from high debt and low profitability.

1 Section 1 deals with the definition of a depression as opposed to ‘normal’ recessions. Section
2 2 considers the nature of the current Long Depression and argues that it is the level and
3 changes in business investment, not household consumption or residential investment as the
4 central cause of depressions. Section 3 links the movements in business investment to the
5 movements in the profitability of business capital and debt. Section 4 considers the argument
6 that the depression or weak recovery since 2009 has been caused by the policies of austerity
7 and finds the Keynesian multiplier a weaker explanation than the Marxist multiplier. Section
8 5 provides some suggested indicators for the future outcome of this current depression,
9 namely the movement of corporate profits and debt levels.

10 **Section 1: Recessions and depressions**

11 Recessions are common; depressions are rare¹. This paper argues that there is a distinction
12 between economic recessions and depressions and this distinction helps to explain why
13 economic recovery can be weaker and take longer.²

14 A *depression* is defined here as when economies are growing at well below their previous
15 rate of output (in total and per capita) and below their long-term average. It also means that
16 levels of employment and investment are well below those peaks and below long-term
17 averages. Above all, it means that the profitability of the capitalist sectors in economies
18 remain, by and large, lower than levels before the start of the depression.

19 To date, there have been three depressions (as opposed to regular and recurring economic
20 slumps or recessions) in modern capitalism. The first was in the late nineteenth century
21 (1873–97); the second was in the mid twentieth century (1929–39); and now we have one in
22 the early twenty-first century (2008–?). These all started with significant slumps (1873-6;
23 1929-32; and 2008-9).

24 Most important, depressions (as opposed to recessions) appear when there is a conjunction of
25 downward phases in cycles of capitalism. Every depression has come when the cycle in
26 clusters of innovation have matured and have become “saturated”; when world production
27 and commodity prices enter a downward phase, namely, that inflation is slowing and turns
28 into deflation; when the cycle of construction and infrastructure investment has slumped; and
29 above all, when the cycle of profitability is in its downward phase. The conjunction of these
30 different cycles only happens every sixty to seventy years.

31 A *long depression* is the best term to use to describe the period through which capitalism is
32 now passing. The Long Depression will be ended by a conjunction of economic outcomes
33 (slump, technological revolution, and a change of economic cycle) or by political action to
34 end or replace the capitalist mode of production. There is no permanent crisis. There is
35 always resolution and new contradictions in the dialectics of history. So the Long Depression
36 will end more like the nineteenth-century depression of 1880–90s ended—with a new
37 upswing in capitalism and globalization.

38 The nineteenth-century depression ended in the late 1880s and 1890s in the United Kingdom,
39 the United States, and Germany. That is also what happened from 1942 onwards in the

1 United States, Europe, and Japan. Eventually this Long Depression will end. The current
 2 Long Depression still has another stage to go before it will come to an end. We are not there
 3 yet—we are still in a period of depression (an economic “winter”) that could last another few
 4 years or so.

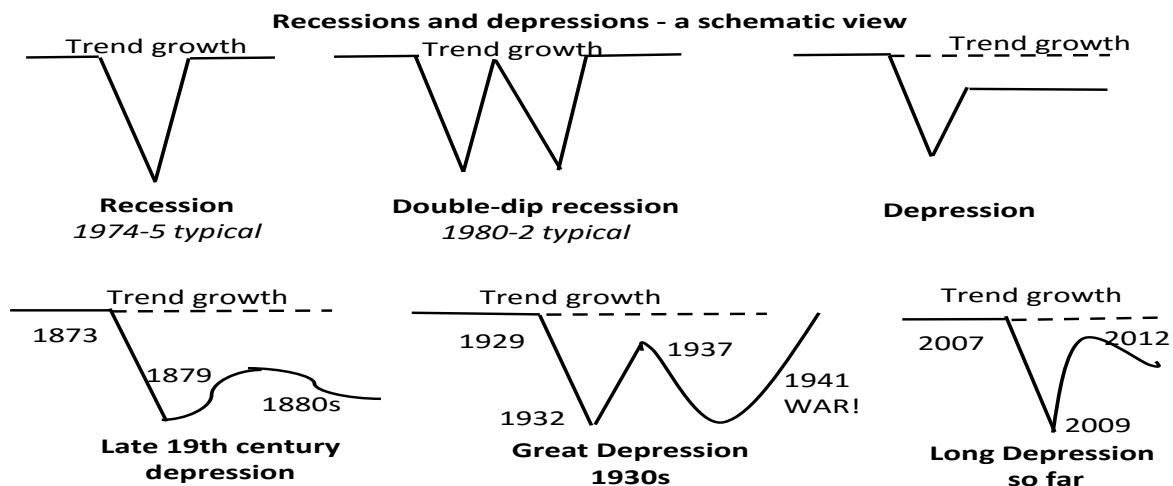
5 A depression has been defined by mainstream economics in two ways. The first is a rather
 6 formal rigid standard, namely, that an economy experiences a decline in real GDP that
 7 exceeds 10 percent, or suffers a decline that lasts more than three years. Both the late
 8 nineteenth-century depression and the Great Depression of the 1930s qualify on both counts,
 9 with a fall in real GDP of around 30 percent between 1929 and 1933. Output also fell 13
 10 percent in 1937–38.

11 Second, it is argued that the difference between a recession and a depression is more than
 12 simply one of size or duration. The nature of the downturn matters as well. In the Great
 13 Depression, average prices in the United States fell by one-quarter and nominal GDP ended
 14 up shrinking by almost half. The worst US recessions before World War II were all
 15 associated with banking crises and falling prices. In both 1893–94 and 1907–8 real GDP
 16 declined by almost 10 percent; in 1919–21, it fell by 13 percent.

17 Neither of these definitions does justice to the reality of a depression. A more specific
 18 benchmark would be where an economy suffers a major contraction and any recovery is so
 19 weak that the trend growth path afterward is never reattained or at least takes several years or
 20 even a decade or more.

21 Think of it schematically (Figure 1). A recession and the ensuing recovery can be V-shaped,
 22 as typically in 1974–75; or maybe U-shaped; or even W-shaped as in the double-dip
 23 recession of 1980–82. But a depression is really more like a square root sign, which starts
 24 with a trend growth rate, drops in the initial deep slump, then makes what looks like a V-
 25 shaped recovery, but then levels off on a line that is below the previous trend line. In a
 26 depression, pre-crisis trend growth is not restored for up to ten to fifteen or even twenty
 27 years.

28 Figure 1. Schematic representations of GDP growth and investment



29

1 With this definition, the Great Depression of the 1930s qualifies as a depression. Although
2 the initial slump from 1929 to 1932 was the deepest in capitalist history so far, it was not the
3 longest-lasting at forty-three months. The initial recession in the first long depression of the
4 late nineteenth century was much longer at sixty-five months from 1873 to 1879. Recovery
5 back to the trend growth rate in the United States was not achieved until 1940 and not until
6 the 1890s in the earlier depression. In the current Long Depression, the actual initial slump,
7 the Great Recession, lasted only eighteen months, although this was the longest in the
8 postwar period. Trend growth has not been achieved some eight years (ninety-six months)
9 after the start of the Great Recession. So in that sense, it is a depression.

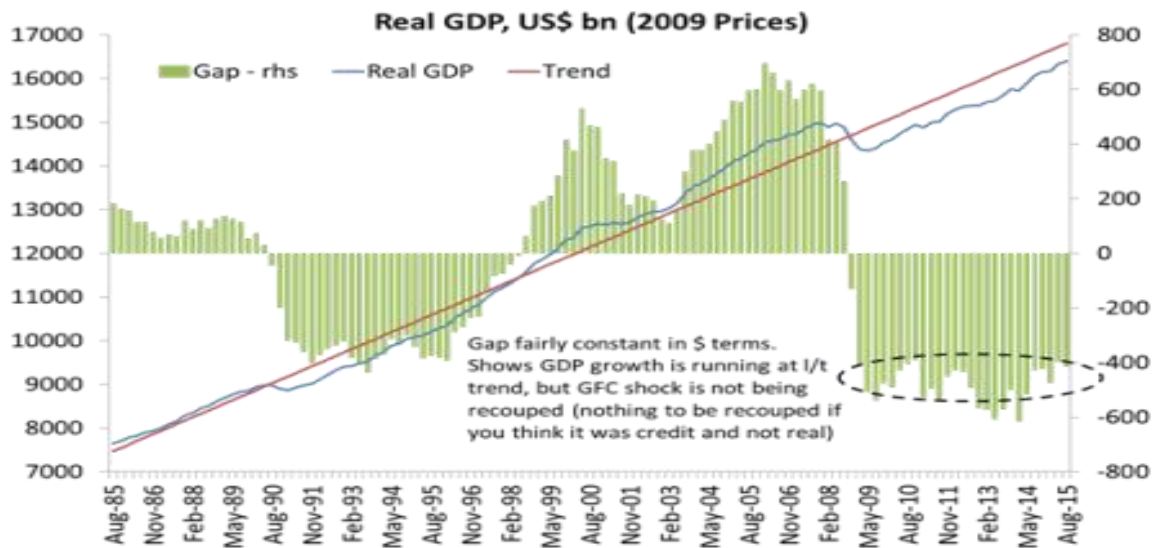
10 This time the recovery is not V-shaped or even L-shaped (as in Japan in the 1990s) but more
11 like a square root sign. Instead of 3-4 percent a year, output in the major economies has been
12 closer to 1–2 percent a year. The slowdown has spread to the so-called emerging economies,
13 too; growth is now closer to 4 percent a year than the previous 7–8 percent.

14 This picture of developments in the major capitalist economies since 2009 has increasingly
15 gained traction even among mainstream economists.³ For example, Brad DeLong noticed
16 that the US: “*did not experience a rapid V-shaped recovery carrying it back to the previous*
17 *growth trend of potential output*”.⁴ DeLong explains: “*A year and a half ago, when some of*
18 *us were expecting a return to whatever the path of potential output was by 2017, our guess*
19 *was that the Great Recession would wind up costing the North Atlantic in lost production*
20 *about 80 percent of one year’s output—call it \$13 trillion. Today a five-year return to*
21 *whatever the new normal might be looks optimistic—and even that scenario carries us to \$20*
22 *trillion. And a pessimistic scenario of five years that have been like 2012-2014 plus then five*
23 *years of recovery would get us to a total lost-wealth cost of \$35 trillion. DeLong concludes*
24 *that “at some point we will have to stop calling this thing ‘The Great Recession’ and start*
25 *calling it ‘The Greater Depression’”.*

26 The permanent loss in output is revealed in Figure 2, showing the failure to return to pre-
27 crisis trend growth.

28 Figure 2: Real GDP per capita in the United States with an exponential regression trendline.
29 Current GDP is at 1.48 percent above the 2007 peak and 9.8 percent below the trendline.
30 Recessions are highlighted in grey.

31 Source: Datastream, author’s calculations



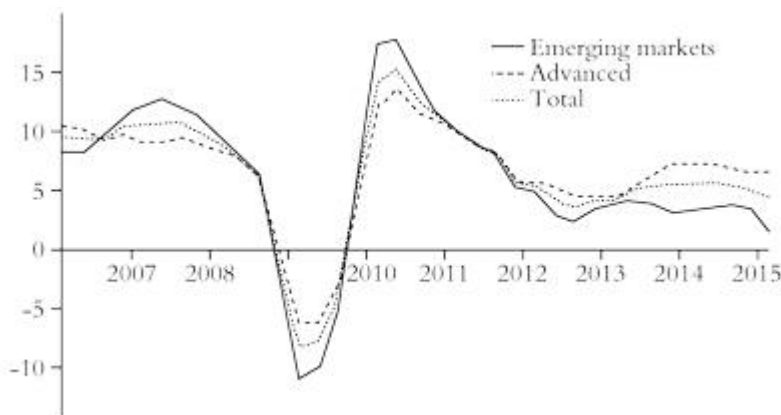
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2 The US Congressional Budget Office (CBO) reckons that US real GDP will never return to
 3 its pre-Great Recession growth path. US real GDP will permanently be 7.2 percent below the
 4 pre-Great Recession growth path because trend real GDP continued to rise during the
 5 recession. They call this a “*purely permanent recession*”. David Papell and Ruxandra Prodan
 6 at the University of Houston find that deep recessions after a financial crash can take up to
 7 nine years before growth returns to trend. But this time it is different—it’s even worse.⁵

8 The IMF also argues that the “*potential output*” of the world economy is growing more
 9 slowly than before. Christine Lagarde, head of the IMF, described the world’s current
 10 economic performance as “*just not good enough*”.

11 According to the latest Brookings Institute-Financial Times tracking index, the global
 12 economy is mired in a “*stop and go*” recovery “*at risk of stalling again*”. This “Tiger index”
 13 shows measures of real activity, financial markets and investor confidence compared with
 14 their historic averages in the global economy and within each country. The Tiger index graph
 15 for global growth looks pretty much like the “square root” trajectory that is presented in
 16 Section One as a schematic example of a depression (Figure 3).⁶

17 Figure 3: Real economic activity
 18 Source: Brookings Institute Tiger index



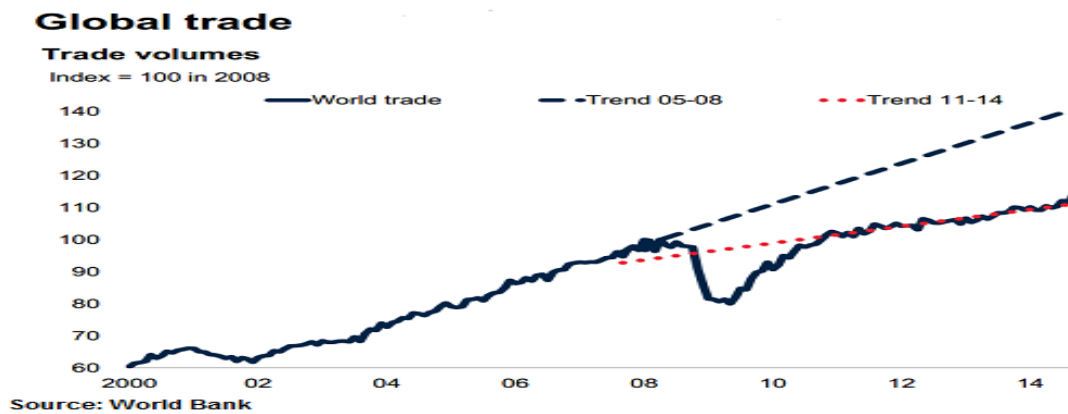
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1 Another feature of depressions is a significant slowing of world trade growth. Global trade is
2 poised for at least two more years of disappointing growth, according to the WTO (figure 4).
3 It's bad news whenever trade grows more slowly than GDP because it means the economies
4 either cannot get out of a depression by exporting as external demand is even weaker than
5 domestic demand.

6 Trade expansion is set to remain well below the annual average of 5.1 percent posted since
7 1990. The modest gains in 2014 marked the third consecutive year in which trade grew less
8 than 3 percent. Trade growth averaged just 2.4 percent between 2012 and 2014, the slowest
9 rate on record for a three-year period when trade was expanding (i.e. excluding years like
10 1975 and 2009 when world trade actually declined).

11 Figure 4: Global trade volumes (index 2008=100)

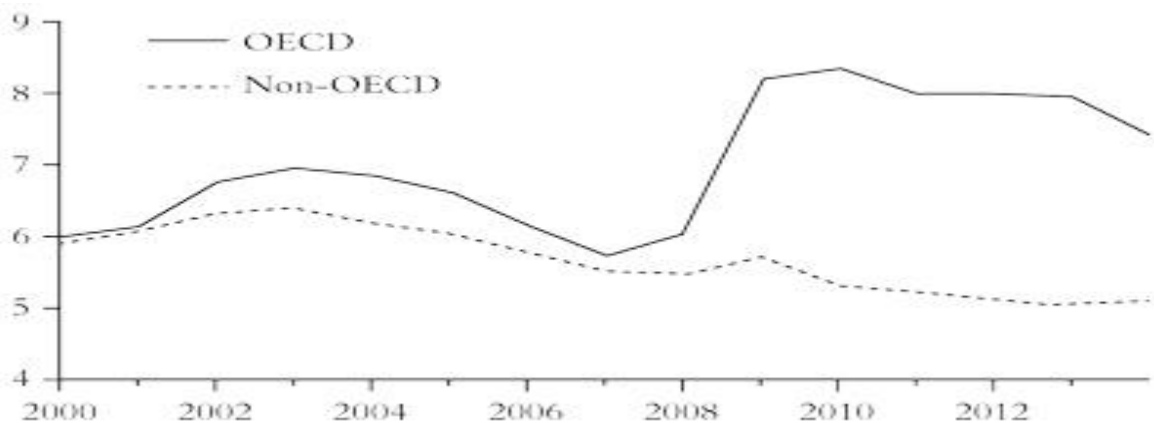
12 Source: World Bank



14 Another indicator is employment growth. While global unemployment is finally back to
15 levels seen before the global financial crisis, global employment is growing at just 1.5 percent
16 a year, far slower than the 2.0 to 2.5 percent growth rate seen before the crisis. The
17 unemployment rate in advanced economies stood at 7.4 percent in 2014, far higher than the
18 5.7 percent seen in 2007 (Figure 5).

19 Figure 5: Unemployment rates in OECD and non-OECD countries (percentage)

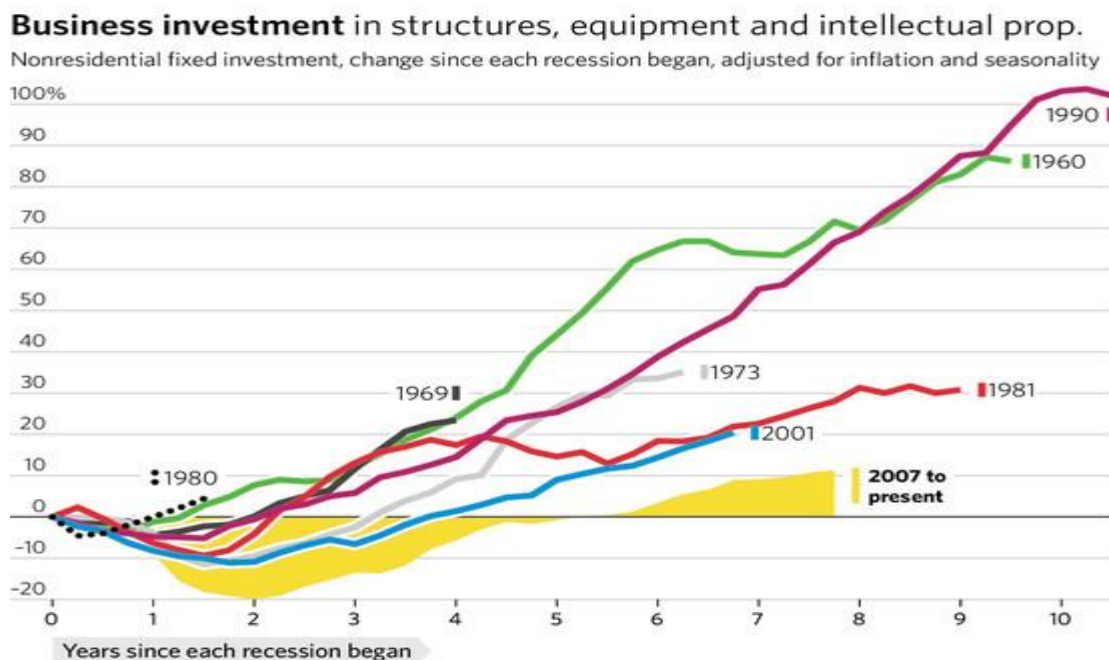
20 Sources: IMF, ILO, EIU



1 **Section 2. The current long depression**

2 This paper argues that the main cause of the global crawl is weak investment growth. The
3 collapse in the housing bubble in many advanced economies from 2007 was one reason for
4 the drop in private sector investment. But the collapse in business investment was much
5 greater and long lasting. The IMF estimates that business investment in the advanced
6 economies was 13 percent lower in from 2008 to 2014 than it expected back in spring 2007
7 before the Great Recession. For the United States, the gap was even bigger at 16 percent and
8 18 percent for Japan. The investment recovery in the US has been the weakest of all post-
9 1945 recessions (Figure 6).

10 Figure 6: US real business investment, change since recession began



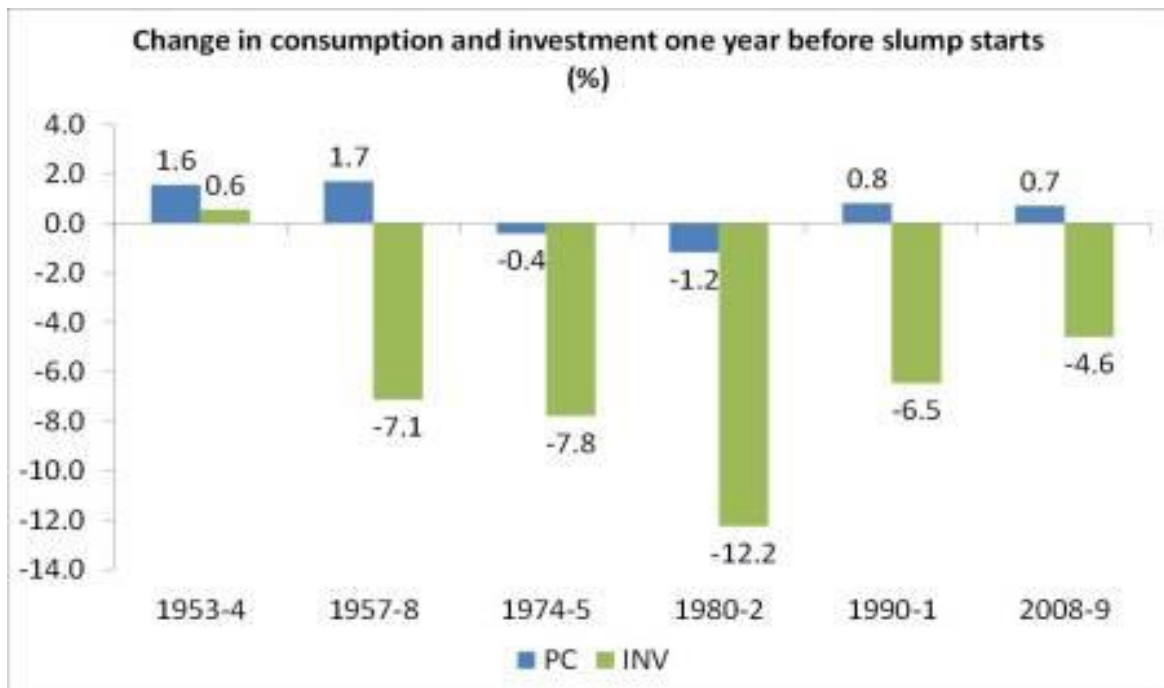
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12 The Bank for International Settlements (BIS) argued that the Great Recession and the
13 subsequent weak and slow recovery in the major economies was a product of the collapse in
14 business investment.⁷ As the BIS put it: “*Business investment is not just a key determinant of*
15 *long-term growth, but also a highly cyclical component of aggregate demand. It is therefore*
16 *a major contributor to business cycle fluctuations. This has been in evidence over the past*
17 *decade. The collapse in investment in 2008 accounted for a large part of the contraction in*
18 *aggregate demand that led many advanced economies to experience their worst recession in*
19 *decades. Across advanced economies, private non-residential investment fell by 10-25*
20 *percent.*”

21 Net business investment—after deducting the depreciation of existing stock—is still nearly
22 one-third below the pre-crisis peak. Net investment in structures is more than half below the
23 previous peak, and down nearly 20 percent in equipment. Even net software investment is
24 still 12 percent down.

1 A fall in consumption does not take place before slumps, so the house of cards did not
2 collapse because of a fall in consumer demand. It is a fall in investment that provokes a
3 slump and, during a slump, it is investment not consumption that falls the most (Figure 7).

4 Figure 7. Percentage change in US investment and consumption one year prior to the
5 beginning of a recession.

6 Source: Datastream, Author's calculations



7

8 Of six post-1945 recessions in the US, five out of six show a fall in investment one year prior
9 to the beginning of the recession of between 4-12%. Only two show a fall in consumption
10 one year prior to the recession and then no more than 1%. The severest recessions show the
11 largest falls in investment.

12 **Section 3. Why weak investment? It's profitability!**

13 Why is investment lagging? There are various explanations from mainstream economics.⁸
14 The debate increasingly revolves around the resurrected concept of 'secular stagnation'. In
15 none of these mainstream explanations of the Long Depression is there a mention of what is
16 happening to the profitability of capital, although the dominant mode of production in the
17 world economy is one of production for profit.

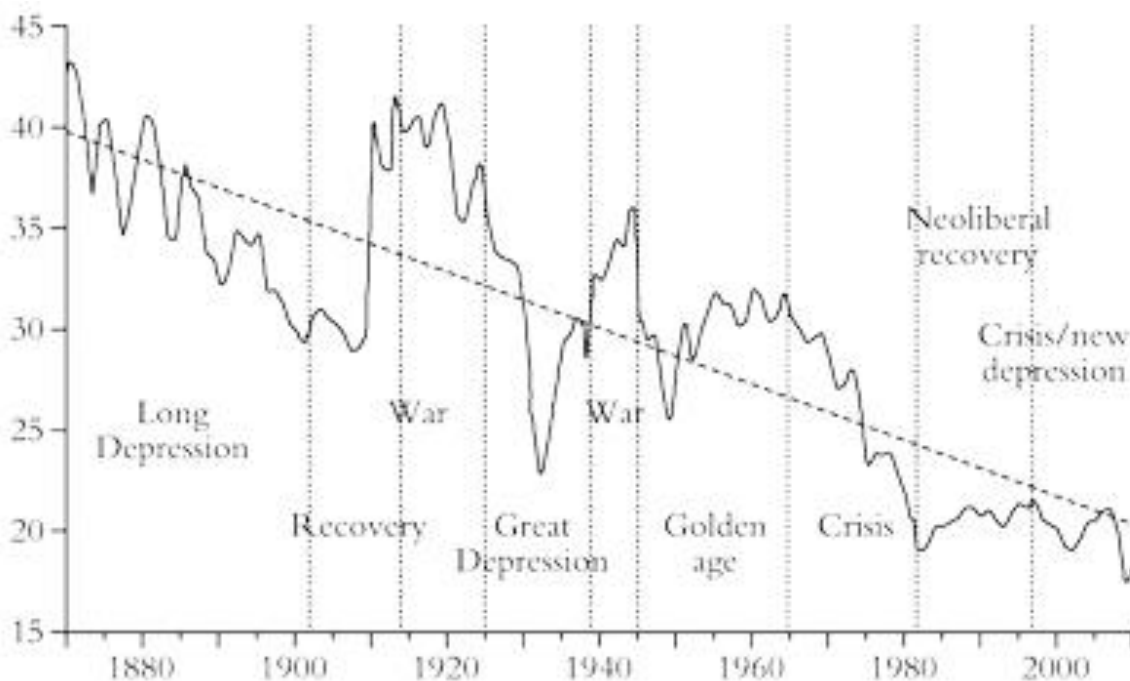
18 The Marxist theory of crisis argues that there is a tendency for the rate of profit to fall over
19 time as capitalism expands and capital accumulates. This tendency can be counteracted for
20 periods of time by higher rates of exploitation of labour and by faster innovation. But the
21 tendency will eventually apply in lowering profitability. This law of the tendency of the rate
22 of profit to fall, Marx reckoned, was the most important law of political economy. It was both
23 a secular tendency and showed that capitalism was a transitory mode of production in human
24 social organisation with a use-by date. It also generated cyclical fluctuations in output and

1 employment, so that capitalist production was not harmonious but punctuated by violent
2 slumps.

3 If we look at the movement of the rate of the profit in the major economies over the last 150
4 years since capitalism has been the dominant mode of production globally, the reason for the
5 current Long Depression becomes clearer. Figure 8 (the simple mean average world rate of
6 profit from the work of Esteban Maito, as interpreted by me) shows that global profitability is
7 in a downphase, similar to the fall in profitability experienced between 1870 to the end of the
8 19th century and the Great Depression of the 1930s.⁹

9 Figure 8: World rate of profit, simple mean (percentage)

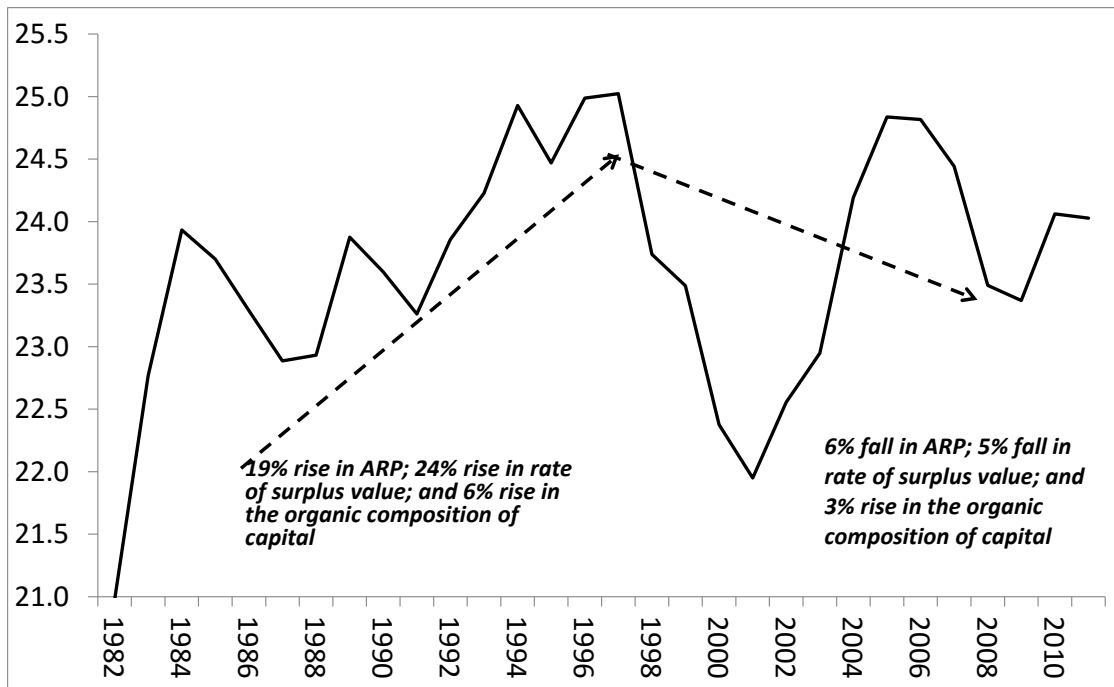
10 Source: Maito, 2014, adapted by author



11

12 In the most important capitalist economy, the US, the rate of profit has been in secular
13 decline since the end of the Second World War. There was a “golden age” from 1946 to
14 1965, when profitability held up, but then there was a period of sharply falling profitability
15 (the crisis period) from 1965 to 1980-2. From 1982 to 1997 there was a revival in
16 profitability in the neoliberal period, if you like. From 1997 the US rate of profit entered a
17 downward phase. Since the end of the Great Recession profitability revived from lows in
18 2009 but is still below the level reached in 1997 (Figure 9).

19 Figure 9. The US rate of profit (%), 1982-2012



1

2 Marx's law of the tendency of the rate of profit to fall is just that: the rate of profit in a
 3 capitalist economy will tend to fall over time. But there are periods when counteracting
 4 factors come into play, so the tendency to fall does not materialise in an actual fall for a
 5 period of time. Thus you can get a profit cycle of falling profitability followed by a period of
 6 rising profitability and then a new fall, all within a secular process of decline.

7 Marx's law says that the rate of profit will fall because there will be a rising organic
 8 composition of capital (the value of constant capital, machinery, plant and raw materials, will
 9 rise faster than variable capital, wages and benefits paid to the employed workforce). The US
 10 data confirm that. There is a strong inverse correlation (-0.67) between the organic
 11 composition of capital and the rate of profit. The organic composition of capital rose 20
 12 percent from 1946 to 2014 and the rate of profit fell 20 percent. In the period when
 13 profitability rose, from 1982 to 1997, counteracting factors came into play, in particular a
 14 rising rate of exploitation (surplus value) and a cheapening of the value of constant capital
 15 leading to a fall in the organic composition. In that period, the rate of surplus value rose 13
 16 percent and the organic composition of capital fell 16 percent. The rise in the rate of profit
 17 from 1980 to 2014 was two thirds due to a rise in exploitation of labour during the neoliberal
 18 period and only one third due to cheaper technology. Again this supports Marx's law.

19 Marx argued that slumps in capitalist production came about when profitability fell to such a
 20 level that the cost of new investment in labour and technology rose more than the profits
 21 gained, so that the mass of profit began to fall. Once that started to happen, the weakest
 22 companies began to make huge losses and so laid off labour and stopped investing. This
 23 downturn in employment and investment then cascaded through an economy, generating an
 24 overall crisis in production. Then any debt liabilities that had been racked up in order to
 25 invest, or to speculate in the stock market or in real estate to boost profitability, could not be

1 paid and the profit crisis would trigger a financial crisis. In turn, this financial crisis would
2 bring about an even greater fall in investment and production.

3 This Marxist explanation differs from the Keynesian one. The latter supposes that investment
4 is autonomous and responds basically to relative “confidence” in the prospects of businesses,
5 to “animal spirits”, so that present profits are determined by current investment and
6 investment in the recent past. The Marxist view is that investment depends on profitability, so
7 that movements in investment respond to previous movements in profits.

8 Not every depression is the same: each has its own characteristics. The distinctive feature of
9 the current depression is the role of excessive credit or debt from the 1980s onwards (Figure
10 10). Since the financial crisis struck in 2008 the world has become more leveraged; total
11 public and private debt reached 272 percent of developed-world GDP in 2013¹⁰. The world
12 economy has never been so awash with debt.¹¹ Global debt has increased by \$57 trillion since
13 2007 to almost \$200 trillion—far outpacing GDP growth. As a share of world GDP, debt has
14 risen from 270 percent to 286 percent, despite the cleansing of the Great Recession.

15 Figure 10. US corporate debt to net worth (%)



16

17 Overall, almost half of the increase in global debt since 2007 was in developing economies,
18 but a third was the result of higher government debt levels in advanced economies.

19 Households have also increased debt levels across economies—the most notable exceptions
20 being crisis-hit countries such as Ireland and the US. China’s total debt, including the
21 financial sector, has nearly quadrupled since 2007 to the equivalent of 282 percent of GDP.

22 This growth of credit and fictitious capital (as Marx called speculative investment in stocks,
23 bonds, and other forms of money assets) picks up precisely to compensate for the downward
24 pressure on profitability in the accumulation of real capital.

25 A fall in the rate of profit promotes speculation. If the capitalists cannot make enough profit
26 producing commodities, they will try making money betting on the stock exchange or buying
27 various other financial instruments. Capitalists experience the falling rate of profit almost

1 simultaneously, so they start to buy these stocks and assets at the same time, driving prices
2 up. But when stock and other financial asset prices are rising everybody wants to buy them—
3 this is the beginning of the bubble.

4 If, for example, the speculation takes place in housing, this creates an option for workers to
5 loan and spend more than they earn (more than the capitalists have laid out as variable
6 capital), and in this way the “realization problem” is solved. Sooner or later, bubbles burst
7 when investors find that the assets are not worth what they are paying for them. The
8 “realization problem” reoccurs in an expanded form compared with before the bubble. The
9 speculative bubble explodes because both wages and profits in the productive sectors fall
10 dramatically in the crisis years. Now the workers have to pay back their loans, with interest,
11 so they have to spend less than they earn. The result is even greater overproduction than was
12 avoided temporarily in the first place.

13 The basic problem is still the falling rate of profit, which depresses investment demand. If the
14 underlying economy were healthy, an imploding bubble need not cause a crisis, or at least
15 only a short one. When workers and capitalists pay interest on their loans, this money does
16 not just disappear. If the total economy is healthy and the rate of profit is high, then the
17 revenue generated from interest payments will be reinvested in production in some way.

18 An artificial and temporary inflation of profits in unproductive sectors of a capitalist
19 economy (like finance) can help sustain the capitalist economy and compensate for a falling
20 rate of profit in productive sectors. Then in a crisis, an increasing share of debtors who cannot
21 finance their debt eventually causes default and the crisis erupts in the financial sector.¹²

22 Marx’s law shows that the capitalist system does not just suffer from a “technical
23 malfunction” in its financial sector but has inherent contradictions in the production sector,
24 namely, the barrier to growth caused by capital itself.

25 There were five recessions or slumps after 1963: 1974–75, 1980–82, 1990–92, 2001, and
26 2008–9. In each case, the US rate of profit peaked at least one year before and on most
27 occasions up to three years before. On each occasion (with the exception of the very mild
28 2001 recession), a fall in the mass of profit led or coincided with a slump. This is shown
29 clearly for the Great Recession. There was rise in the rate of profit and the mass of profits
30 from 2002 to 2006. But profitability was still in a downward cycle from 1997 and the rate and
31 the mass of profits did start to fall from 2006 onward.

32 JP Morgan shows that global corporate profitability fell from near 9 percent before the Great
33 Recession to under 4 percent in the trough of 2009 before recovering to 8 percent in 2011.
34 But in 2012, it declined again to 7 percent, 13 percent below its peak in February 2008 when
35 the Great Recession began.

36 The UN also noted a failure in the recovery of returns on corporate investment globally.¹³
37 Profitability on investment in productive sectors of the world in 2011 was some 20 percent
38 below where it was before the global financial crash and the Great Recession for the
39 advanced capitalist economies, and 15 percent down for the world as a whole.

1 The EU Commission¹⁴ noted that nonresidential investment (which excludes households
2 buying houses) as a share of GDP “stands at its lowest level since the mid-1990s.” The main
3 reason: “a reduced level of profitability.” The report makes the key point that “measures of
4 corporate profits tend to be closely correlated with investment growth” and only companies
5 that don’t need to borrow and are cash-rich can invest—and even they are reluctant. The
6 Commission found that Europe’s profitability “has stayed below pre-crisis levels.”

7 The BIS believes that “the uncertainty about the economic outlook and expected profits play
8 a key role in driving investment, while the effect of financing conditions is apparently small.”
9 The bank dismisses the consensus idea that the cause of low growth and poor investment is
10 the lack of cheap financing from banks or the lack of central bank injections of credit.

11 Instead, the BIS looks for what it calls a “seemingly more plausible explanation for slow
12 growth in capital formation,” namely, “a lack of profitable investment opportunities.”
13 According to them, companies are finding that the returns from expanding their capital stock
14 “won’t exceed the risk-adjusted cost of capital or the returns they may get from more liquid
15 financial assets.” So they won’t commit the bulk of their profits into tangible productive
16 investment. “Even if they are relatively confident about future demand conditions, firms may
17 be reluctant to invest if they believe that the returns on additional capital will be low.”¹⁵

18 Ironically, the BIS figures that whereas investment in the stock market was more profitable
19 for companies than investing in productive assets in the period before the Great Recession,
20 the reverse is the case now. The profitability of capital stock has not risen; it’s just that the
21 stock market is now so expensive that the likely return against stock prices has fallen. Returns
22 on bonds have slumped.

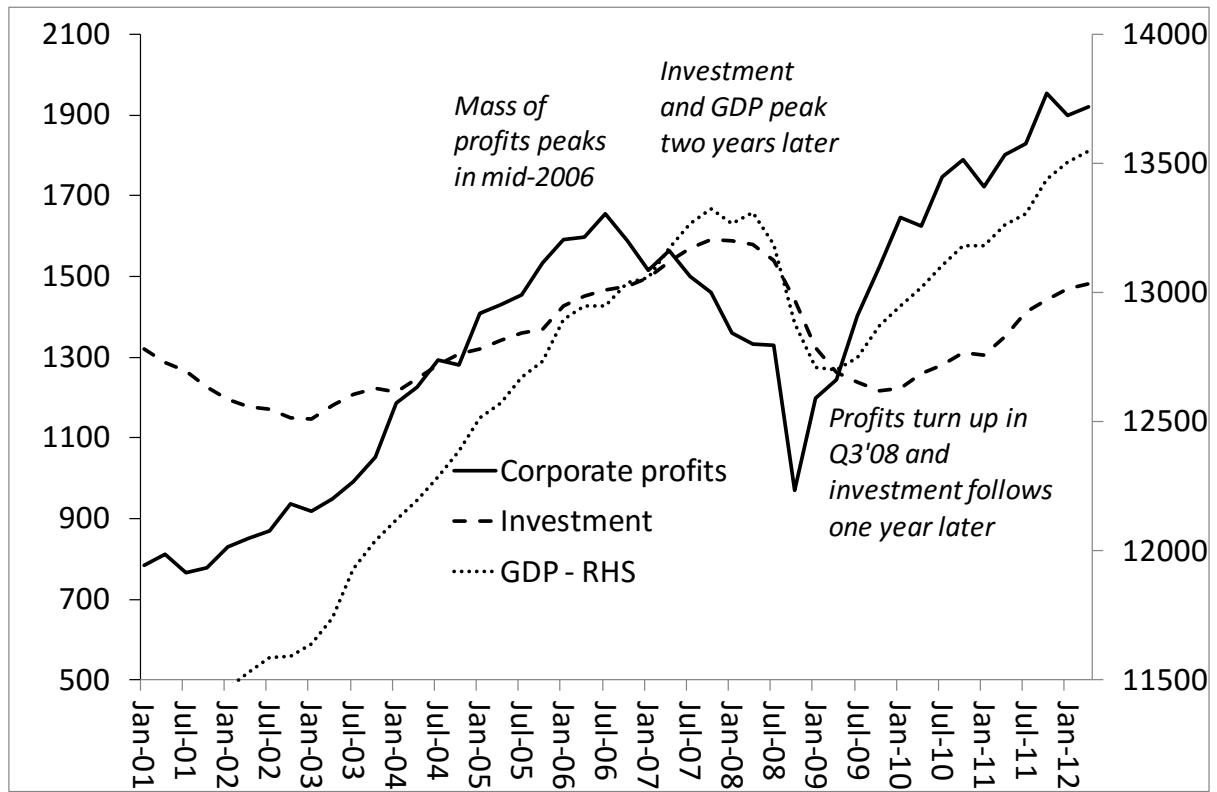
23 The profitability of capital has to be high enough to justify riskier high-tech investment and
24 cover a much higher debt burden (even if current servicing costs are low). If it is the case that
25 the reason for the continuing Long Depression in the major economies (defined as below-
26 trend growth and below-trend investment) is low profitability and excessive debt, then the
27 situation does not look set to improve.

28 In the United States, the total *level* of profits has surpassed the previous pre-crisis peak, but
29 not the *rate* of profit. In many other advanced capitalist economies, even the mass of profit
30 has not reached the previous peak.

31 A slump under capitalism begins with a collapse in capitalist investment. The movement in
32 investment is initially driven by movements in profit, not vice versa.¹⁶ In the period leading
33 up to the Great Recession, profits fell for several quarters before the US economy went into a
34 nose dive. US corporate profits peaked in early 2006 (that’s the absolute amount, not the rate
35 of profit, which peaked earlier). From its peak in early 2006, the mass of profits fell until
36 mid-2008, made a limited recovery in early 2009, and then fell to a new low in mid-2009.
37 After that, the recovery in profits began and the previous peak in nominal dollars was
38 surpassed in mid-2010 (Figure 11).

1 Figure 11: US corporate profits (advanced one year) and business investment (percentage
 2 change year on year)

3 Source: BEA, Author's calculations



4
 5 What was the reaction of investment to this movement in US profits? When US corporate
 6 profit growth started to slow in mid-2005 and then fell in absolute terms in 2006, corporate
 7 investment went on growing for a while as companies used up reserves or increased
 8 borrowing in the hope that profits would be restored. When that did not happen, investment
 9 growth slowed during 2007 and then fell absolutely in 2008, at one point falling at a nearly
 10 20 percent year-on-year rate.

11 Profits started to recover at the end of 2008, but investment did not follow for a year. It was
 12 the same for GDP—it peaked well after profits did and recovered after profits did. The
 13 movement of profits leads the movement of investment, not vice versa. Profits were falling
 14 well before the credit crunch began. So Marx's law provides an explanation of the crisis of
 15 2001–2, the subsequent recovery of 2002–6, the great 2007–9 slump, and the subsequent
 16 recovery.

17 US corporate profits were falling some two years before the recession began, and investment
 18 dropped as a result before GDP contracted. In the recovery, again it was profits that led
 19 investment and GDP upwards.

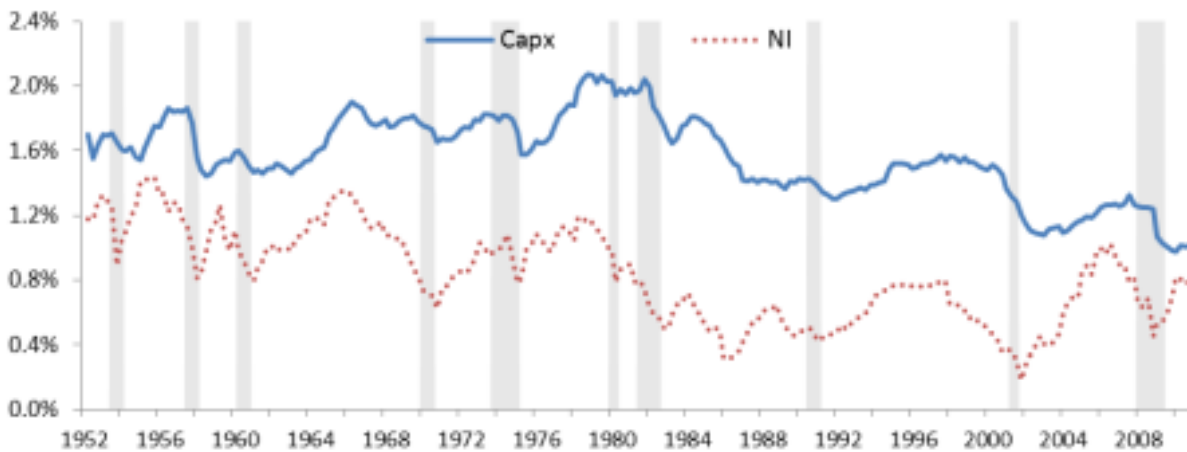
20 These conclusions are confirmed by other authors. For example, Tapia Granados found that:
 21 “data from 251 quarters of the US economy show that recessions are preceded by declines in
 22 profits. Profits stop growing and start falling four or five quarters before a recession. They

1 strongly recover immediately after the recession. Since investment is to a large extent
2 determined by profitability and investment is a major component of demand, the fall in
3 profits leading to a fall in investment, in turn leading to a fall in demand, seems to be a basic
4 mechanism in the causation of recessions”.¹⁷

5 Camara Izquierdo also finds that “a significant cyclical decline of the profit rate has
6 substantially preceded the last two recessions the cyclical slump in the rate of profit must
7 be seen as an important precipitating factor in the deepest economic downturn since the
8 1930s.”¹⁸

9 Kothari, Lewellen and Warner find a close causal correlation between the movement in US
10 business investment and business profitability.¹⁹ The US non-financial corporate rate of profit
11 fell secularly from the 1950s, reaching a low in the mid-1980s and then consolidating or
12 rising a little after that (Figure 12).

13 Figure 12. Quarterly fixed investment (Capx) and after-tax profits (NI) scaled by lagged total
14 assets for nonfinancial corporations from 1952–2010. Data come from the Federal Reserve’s
15 seasonally-adjusted Flow of Funds accounts. Shaded regions indicate NBER recessions.



16
17 The authors find that “investment growth is highly predictable, up to 1½ years in advance,
18 using past profits and stock returns but has little connection to interest rates, credit spreads, or
19 stock volatility. Indeed, profits and stock returns swamp the predictive power of other
20 variables proposed in the literature.” And that “Profits show a clear business-cycle pattern
21 and a clear correlation with investment.” The data show that investment grows rapidly
22 following high profits and stock returns—consistent with virtually any model of corporate
23 investment—but can take up to a year and a half to fully adjust.

24 The authors continue: “investment growth is closely linked to recent profit growth and stock
25 returns but only weakly related to changes in interest rates, stock volatility, and the default
26 spread. We find no evidence that investment drops following a spike in aggregate
27 uncertainty, contrary to the predictions of many models with irreversible investment. We also
28 find no evidence that investment growth slows after a rise in short-term or long-term interest
29 rates, contrary to the idea that Federal-Reserve-driven movements in interest rates have a

1 first-order impact on corporate investment.” So all the alternative explanations of crises
2 offered by monetarists, Keynesians and post-Keynesians have no empirical backing.

3 The authors also measured the predictive causal correlation between changes in profits, GDP
4 and investment and the Great Recession. They found that “if investment maintained its
5 historical connection to profit growth, investment was predicted to drop by 14.7%, roughly
6 two-thirds the actual decline of 23.0%.”

7 This two-thirds figure is almost exactly what I find for the period 2000 to 2013. I find that
8 the correlation between changes in the rate of profit and investment was 64%; second, the
9 correlation between the mass of profit and investment was 76%; and third, the correlation
10 between the rate of profit (lagged one year) and the mass of profit was also 76%.²⁰

11 Finally, the authors found that “at least three-quarters of the investment decline can be
12 thought of as a historically typical drop given the behavior of profits and GDP at the end of
13 2008. Problems in the credit markets may have played a role, but the impact on corporate
14 investment is arguably small relative to a decline in investment opportunities following the
15 2008 recession and financial crisis.”

16 **Section 4: Keynesian versus Marxist multiplier**

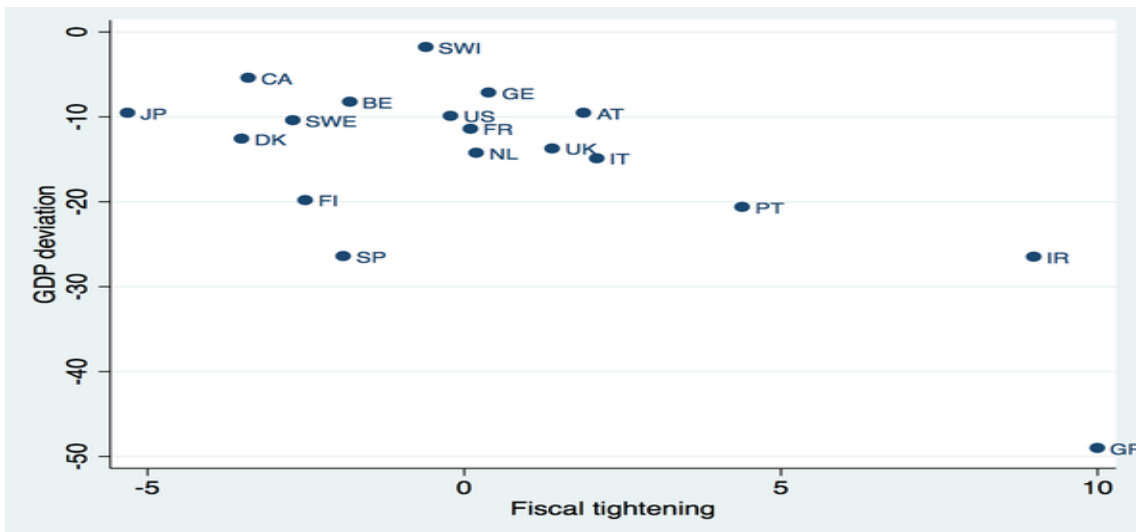
17 The Marxist explanation of the cause of recessions and depressions differs from the
18 Keynesian one. The latter holds to the view that recessions are the result of a collapse in
19 aggregate demand, maybe caused by a fall in consumption or investment or both.
20 Consequently, if demand can be raised exogenously, i.e. by government spending and/or
21 budget deficits, then an economy can recover. If policy makers fail to do this, or worse,
22 apply the opposite policy of government spending cuts and reductions in deficits, they will
23 prolong and/or worsen the recession into a depression.

24 The Marxist explanation of the cause of recessions and slumps starts with changes in the
25 profitability of capital and then to investment and then to aggregate demand and employment.
26 In this perspective, increased government spending or budget deficits will have little effect on
27 restoring economic growth if profitability of capital is unaffected or even worsened as a
28 result.

29 We can test the validity of either explanation by considering the impact of the Keynesian
30 multiplier (a change in real GDP growth against a change in government spending) against
31 that of what we might call the Marxist multiplier (a change in real GDP growth against a
32 change in profitability).

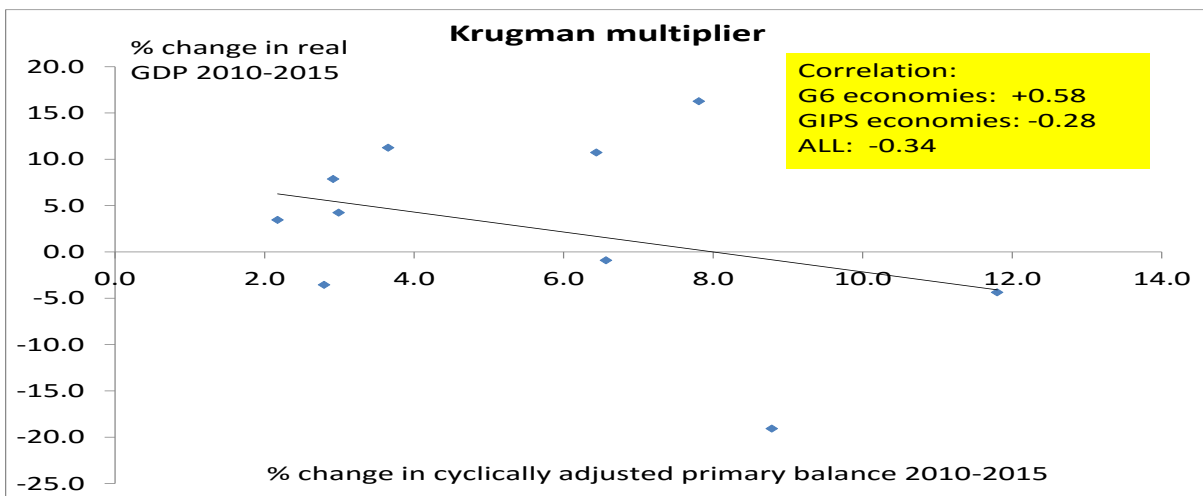
33 Recently, Paul Krugman considered the impact of fiscal tightening, as measured by the IMF’s
34 estimate of the cyclically adjusted primary balance (i.e., excluding interest payments) as a
35 percentage of GDP.²¹ He showed the not the raw change in GDP, but the deviation of real
36 GDP from what the IMF was projecting before the crisis and assumed that projected growth
37 2007-2013 was expected to continue for two more years to get 2015 estimates. This appears
38 to show a significant correlation between fiscal tightening as defined and the deviation of
39 actual real GDP growth from the IMF forecast (Figure 13).

1 Figure 13: The deviation from the pre-crisis IMF real GDP growth forecast and fiscal
 2 tightening (cyclically adjusted primary balance as a % of GDP).
 3 Source: Paul Krugman



4
 5 However, as Krugman says himself, this is perhaps an odd way of measuring the impact of
 6 the Keynesian multiplier and, if Greece is excluded, the correlation is less convincing. If
 7 instead of the deviation from IMF pre-crisis GDP forecasts, we use the change in the real
 8 GDP in the last five years against fiscal tightening, as defined by Krugman, the result does
 9 show a negative correlation for the G6 plus distressed Eurozone economies between 2010
 10 and 2015. But interestingly, there is positive correlation for the G6 alone. In other words,
 11 the tighter the fiscal impact, the better the GDP pick-up in the G6 economies – the opposite
 12 of the conclusions of the Keynesian multiplier (Figure 14).

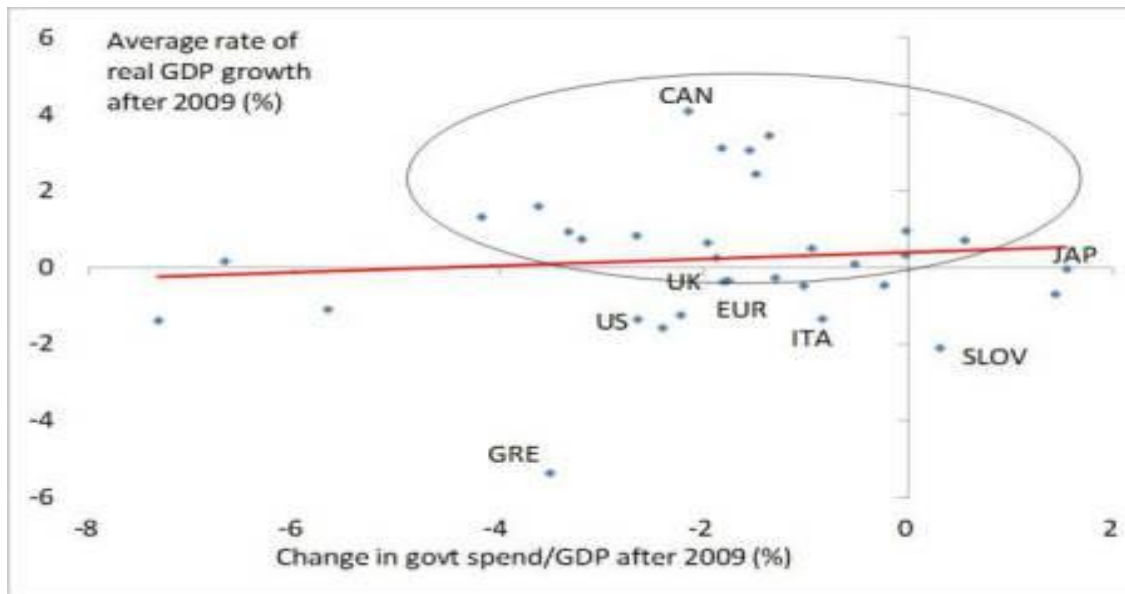
13 Figure 14. Changes in real GDP and the cyclically adjusted primary balance as % of GDP,
 14 2010-15.



1 If we compare changes in government spending to GDP against the average rate of real GDP
2 growth since 2009 for the OECD economies, there is a very weak positive correlation and
3 none if Greece is removed (Figure 15).

4 Figure 15. The average rate of real GDP growth since 2009 (%) in the OECD economies and
5 the change in government spending to GDP (%).

6 Source: AMECO database, author's calculations



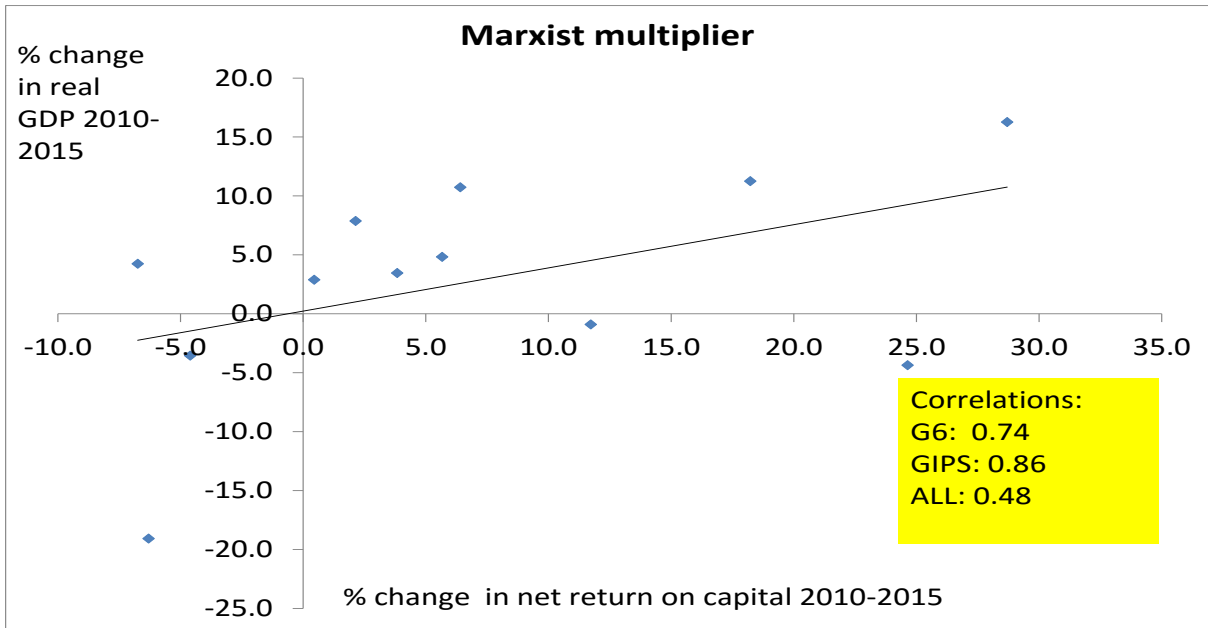
7

8 Also in a new study of the impact of austerity on growth, Alberto Alesina and Francesco
9 Giavassi found that “fiscal adjustments based upon cuts in spending are much less costly, in
10 terms of output losses, than those based upon tax increases.spending-based adjustments
11 generate very small recessions, with an impact on output growth not significantly different
12 from zero.” And “Our findings seem to hold for fiscal adjustments both before and after the
13 financial crisis. We cannot reject the hypothesis that the effects of the fiscal adjustments,
14 especially in Europe in 2009-13, were indistinguishable from previous ones”. In other
15 words, cutting government spending (austerity) had little effect on the real GDP growth rate
16 and that applied to the post-crisis ‘austerity’ policies of European governments.²²

17 Again in a new paper, Cugnasca and Rother from the EU Commission find that the average
18 output cost of a fiscal adjustment equal to 1% of GDP is 0.5% of GDP for the EU as a whole
19 in line with the size of multipliers assumed before the crisis, despite the fact that
20 approximately three quarters of the consolidation episodes that considered occurred after
21 2009. The multiplier is somewhat larger at 0.76 for Eurozone countries and EU countries
22 with a currency pegged to the euro, where monetary policy is less able to compensate for
23 country-specific adjustments.²³

24 Now let's consider the impact of changes in the profitability of business capital against
25 economic growth (the Marxist multiplier). There is a significant positive correlation between
26 changes in profitability of capital and economic growth (Figure 16).

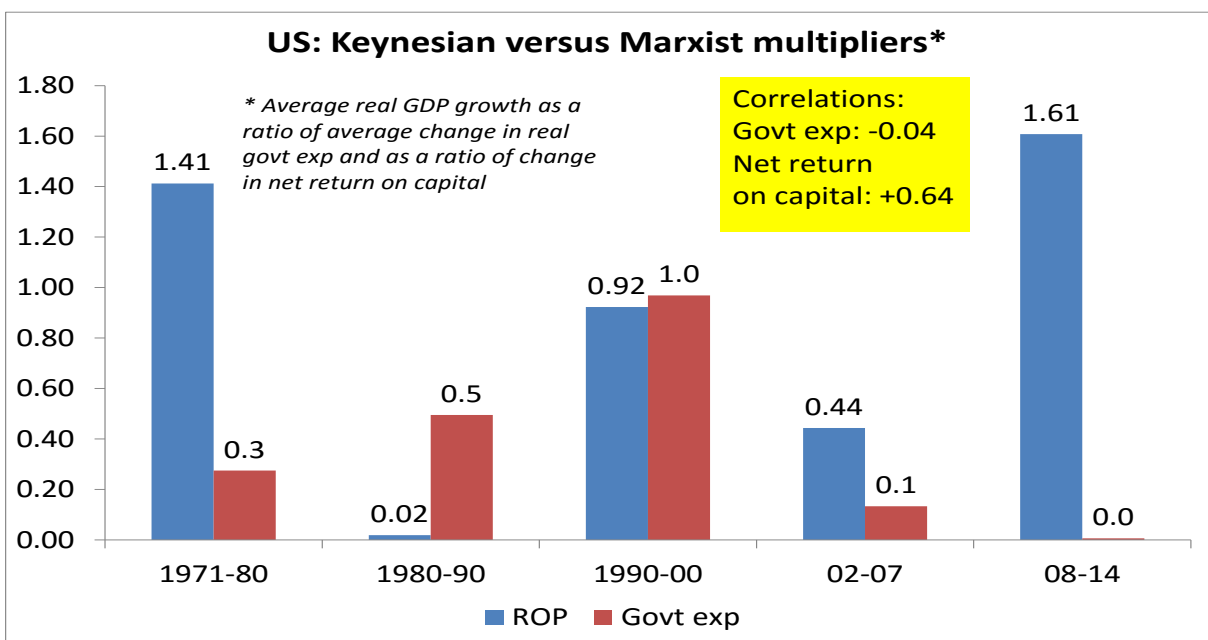
1 Figure 16: The Marxist multiplier: change in real GDP and change in net return on capital, %, 2010-25.
 2



3
 4 The correlations are positive for G6 plus the distressed Eurozone economies (GIPS) and at
 5 much higher levels than with the Keynesian multiplier. We find that real GDP growth is
 6 strongly correlated with changes in the profitability of capital, while the correlation is only
 7 slightly negative with changes in government spending (Figure 16).

8 Figure 16. Average real GDP growth as a ratio of the average change in real government
 9 spending and the net return on capital.

10 Source: AMECO database, author's calculations



11

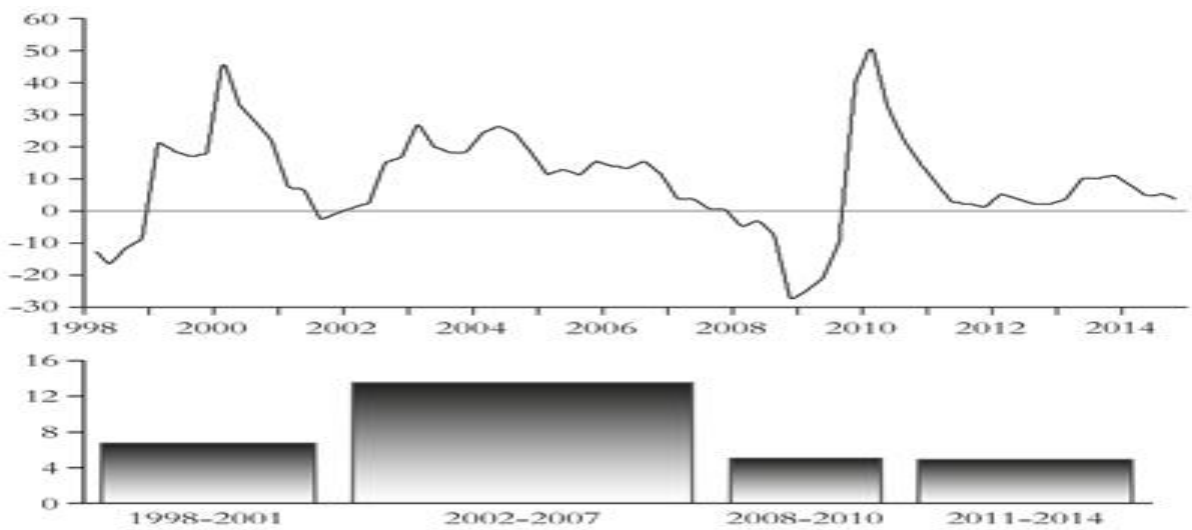
1 This suggests that it is the profitability of capital that is decisive for the recovery or otherwise
2 from an economic recession or depression.

3 **Section 5: What is happening to corporate profits now?**

4 Corporate profits in some of the major capitalist economies, namely the US, Britain, Japan,
5 China and Germany, have been slowing sharply, from 11 percent year on year this time last
6 year to just 3.2 percent at the end of 2014 (Figure 17).

7 Figure 17: Global corporate profits (percentage year on year) bars show average annual
8 growth in global corporate profits

9 Source: US Bureau of Economic Analysis, author's calculations

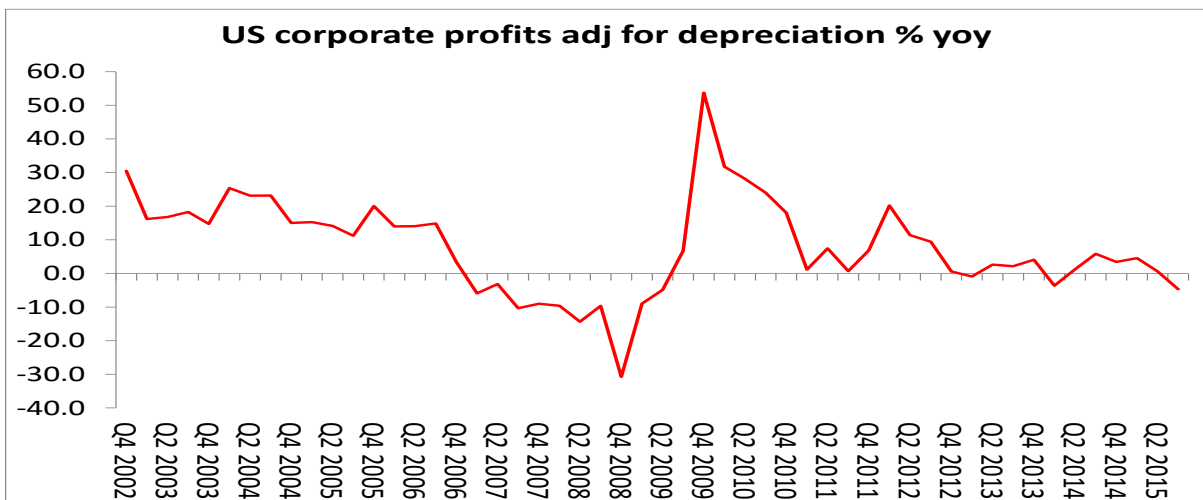


10

11 While US corporate profits are now contracting (Figure 18).

12 Figure 18. US corporate profits yoy %

13 Source: BEA, Datastream



14

15 Profits call the tune. Investment and growth follow.

¹ “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. “ —Paul Krugman¹

² Anwar Shaikh, “The Falling Rate of Profit as the Cause of Long Waves,” in *New Findings in Long Wave Research*, edited by A. Kleinknecht, Ernest Mandel, and Immanuel Wallerstein (London: Macmillan, 1992), pp. 174–95, <http://gesd.free.fr/shaikh92w.pdf> “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.”

³ 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?” says Smith; what if recessions “deal permanent injuries to an economy?”

⁴ <http://www.bradford-delong.com/2014/09/when-do-we-start-calling-this-the-greater-depression.html>

⁵ David Papell and Ruxandra Prodan, Professor of Economics and Clinical Assistant Professor of Economics, respectively, at the University of Houston, Long-Term Effects of the Great Recession, <http://econbrowser.com/archives/2015/02/guest-contribution-long-term-effects-of-the-great-recession>

⁶ FT-Brookings Tiger index, www.brookings.edu/research/reports/2015/04/12-global-economic-recovery-prasad

⁷ See Ryan N. Banerjee, Jonathan Kearns, and Marco Jacopo Lombardi, “(Why) Is Investment Weak?” BIS, March 18, 2015, http://www.bis.org/publ/qtrpdf/r_qt1503g.htm.

⁸ Paul Krugman suggests that investment is lagging because of a general increase in monopoly power. “The most significant answer, I’d suggest, is the growing importance of monopoly rents: profits that don’t represent returns on investment but instead reflect the

value of market dominance.” Although more monopolies might explain higher profits with less investment, there is little evidence that monopoly power has risen in the past few years. After all, capital expenditures are low in competitive industries as well.

Another explanation is a post-Keynesian one: high profits are mirrored in reverse by a fall in real incomes and in labor’s share of total national income. Stewart Lansley argues that the sustained squeeze on wages in recent years “sucked out demand,” encouraged debt-fueled consumption, and raised economic risk.

On the other hand, Austrian school economist Benjamin Higgins reckons that businesses won’t invest because they may be more or less “uncertain about the regime,” by which he means they are worried that investors’ private property rights in their capital and the income it yields will be attenuated further by government action: regulation, taxation, and other controls.

The IMF believes it is lack of demand. Capitalist companies are not investing enough because there is a lack of demand for their products. This answer prompts the question: why is there a lack of demand? It also fails to recognize that the biggest component in the fluctuation in aggregate demand since 2007 has been investment. After all, investment is part of aggregate demand, as the BIS points out.

⁹ Maito, Esteban Ezequiel, 2014, “The Historical Transience of Capital”, <http://gesd.free.fr/maito14.pdf>

¹⁰ Buttiglione L, P Lane, L Reichlin and V Reinhart (2014), *Deleveraging, What Deleveraging?* The 16th Geneva Report on the World Economy, CEPR Press, September.

¹¹ McKinsey Global Institute, 2015

¹² G Carchedi, *Behind the Crisis*. “The basic point is that financial crises are caused by the shrinking productive base of the economy. A point is thus reached at which there has to be a sudden and massive deflation in the financial and speculative sectors. Even though it looks as though the crisis has been generated in these sectors, the ultimate cause resides in the productive sphere and the attendant falling rate of profit in this sphere.”

¹³ The United Nations Commission on Trade and Development (UNCTAD), *World Investment Report 2013 Global Value Chains: Investment and Trade for Development* (New York: United Nations, 2013).

¹⁴ EU Commission, *Winter Economic Forecast* (EU Commission, 2014).

¹⁵ See Banerjee, Kearns, and Lombardi, “(Why) Is Investment Weak?” *BIS Quarterly Review*, March 2015

¹⁶ Jose Tapia Granados, “Does Investment Call the Tune? Empirical Evidence and Endogenous Theories of the Business Cycle,” *Research in Political Economy* 28 (2013),

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¹⁷ Tapia Granados, 2013

¹⁸ Camara Izquierdo, “Short and Long Term Dynamics of the US Rate of Profit.”

¹⁹ S.P. Kothari, Jonathan Lewellen, Jerold B. Warner The behavior of aggregate corporate , August 2015

²⁰ Author’s calculations

²¹ <http://krugman.blogs.nytimes.com/2015/11/28/demand-supply-and-macroeconomic-models/>

²² Alberto Alesina and Francesco Giavazzi, NBER Reporter 2015 Number 3: Research Summary, The Effects of Austerity: Recent Research

²³ Cugnasca, A, P Rother (2015), "Fiscal multipliers during consolidation: evidence from the European Union", Working Paper Series 1863, European Central Bank.
<http://www.voxeu.org/article/fiscal-multipliers-during-consolidation-evidence-european-union>

SOURCES AND METHODOLOGY FOR FIGURES

Figure 1. author

Figure 2. Datastream for real GDP growth, excel macro for exponential trend GDP growth

Figure 3. FT-Brookings

Figure 4. World Bank World Bank,
www.worldbank.org/content/dam/Worldbank/GEP/GEP2015a/pdfs/GEP15a_web_full.pdf

Figure 5. IMF, <http://blog-imfdirect.imf.org/2015/04/28/close-but-not-there-yet-getting-to-full-employment-in-the-united-states>

Figure 6. Wall Street Journal

Figure 7. Datastream for personal consumption expenditures and gross private fixed investment and current GDP. Data lagged back one year (t-1) from point of start of each recession.

Figure 8. Graph adapted by author from work of Esteban Maito, 2014, “The Historical Transience of Capital”, <http://gesd.free.fr/maito14.pdf>

Figure 9. Data and methodology in Carchedi, Guglielmo, and Michael Roberts, 2013b, “The Long Roots of the Present Crisis: Keynesians, Austerians and Marx’s Law”, *World Review of Political Economy*, volume 4, number 1, <http://gesd.free.fr/robarch13.pdf>

Figure 10. Federal Reserve (FRED series), TNWMVBSNNCB and CRDQUSANABIS

Figure 11. Data and methodology from Carchedi and Roberts op cit

Figure 12. S.P. Kothari, Jonathan Lewellen, Jerold B. Warner The behavior of aggregate corporate , August 2015

Figure 13. <http://krugman.blogs.nytimes.com/2015/11/28/demand-supply-and-macroeconomic-models/>

Figure 14. AMECO database:

Net returns on net capital stock: total economy (APNDK)

Gross domestic product at 2010 reference levels (OVGD)

Net lending (+) or net borrowing (-) excluding interest: general government :- ESA 2010 (UBLGI)

% changes 2010-15 correlated

Figure 15. AMECO database

Net returns on net capital stock: total economy (APNDK)

Gross domestic product at 2010 reference levels (OVGD)

% changes 2010-15 correlated

Figure 16. AMECO database

Net returns on net capital stock: total economy (APNDK)

Total expenditure: general government :- ESA 2010 (Including one-off proceeds (treated as negative expenditure) relative to the allocation of mobile phone licences (UMTS)) (UUTG)

Gross domestic product at 2010 market prices (OVGD)

Real total expenditure of general government, deflator GDP :- ESA 2010 (OUTG)

Ratio of changes in GDP to govt exp and net return on capital from 1971

Figure 17. Datastream

Corporate profits from US, UK, Japan, Eurozone and China, % yoy changes averaged.

Figure 18. Datastream

US CORPORATE PROFITS WITH IVA & CCADJ - TOTAL (AR) CURA

All working data in excel for those figures prepared by the author are available on request.

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