

## Helicopter money – really?

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Chris Watling | Longview Economics | 14 March 2016

In the light of the ECB's latest policy moves and comments regarding helicopter money, it seems worthwhile revisiting and considering the question "how did we get here?"

In a matter of seven years, commentators and society at large have gone from a state of heightened concern, almost hysteria, that central banks might be engaging in electronic money printing (i.e. QE) to barely registering surprise that rates are now negative and that the idea of "helicopter money" is being discussed openly (e.g. [Martin Wolf's 23 February 2016 article in The Financial Times](#)). Indeed, large numbers of intelligent individuals are putting forth arguments that on the surface seem cogent, as to why helicopter money is the next rational step for policy response – broadly along the lines that economies are currently suffering from 'demand deficiency' and 'poor productivity growth' and targeted 'monetary financed' fiscal spending on infrastructure should, therefore, address both of those concerns.

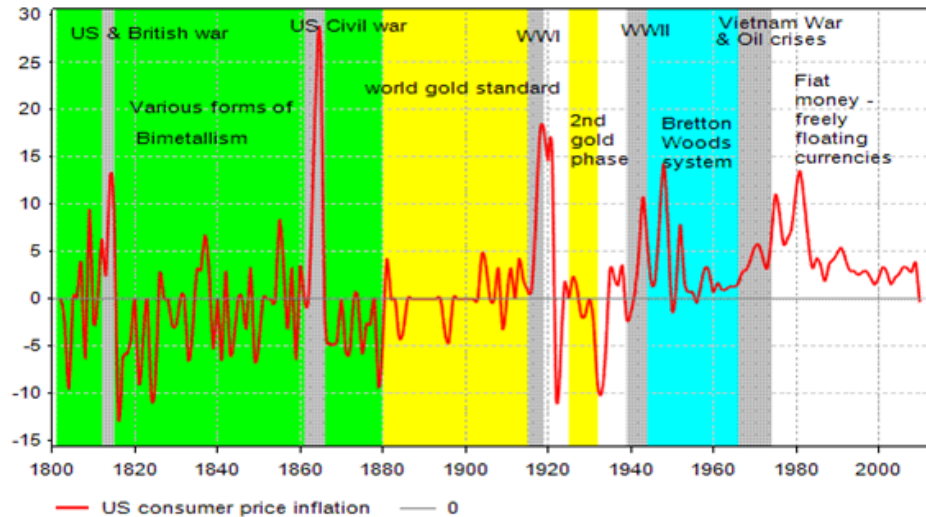
Surely, though, before we collectively embark on yet more unconventional policy, at the very least we should properly diagnose why the first seven years of unconventional policy has failed (that is, why escape velocity has not been reached). In other words, we should try and work out WHY we are where we are. In the words of the baseball legend, Yogi Berra:

"If you don't know where you're going, you might wind up someplace else."

### WHY WE ARE WHERE WE ARE

For the past several hundred years (up until 1971), we lived in a world where money creation was anchored – that is, a world with a monetary standard (typically, a gold, silver or, indeed, bimetal standard). Since 1971, when Nixon took the US off the Bretton Woods system, the world's monetary standard has been entirely unanchored and based on a US dollar fiat money system (note, fiat money is currency that a government has declared to be legal tender, but is not backed by a physical commodity).

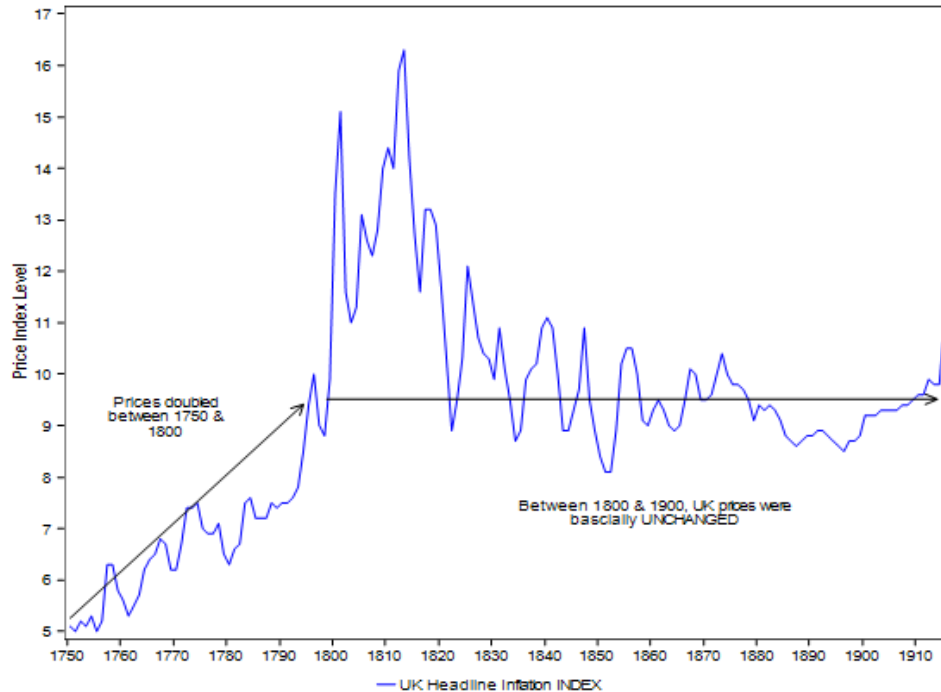
Figure 1: Various different monetary regimes shown with US Consumer Price Inflation (Y-o-Y %)



Source: Reuters EcoWin, Longview Economics. Extract from Longview Letter no 44, 18th March 2010: "Gold, Inflation & Fiat Currencies, a.k.a. The Economics of Owning Gold"

Occasionally, during metal standard eras, governments took countries off those standards temporarily (see Figure 1) – typically, to fund wars (via money creation). Always, the governments went back onto the metal standards after the war had finished. As a result of remaining on a monetary anchor for the vast majority of the time, commercial banks were not able to create new money at will and inflation remained largely in check for centuries (Figure 2).

Figure 2: UK Headline Inflation Index (1750 – 1900)



Source: Longview Economics, Macrobond.

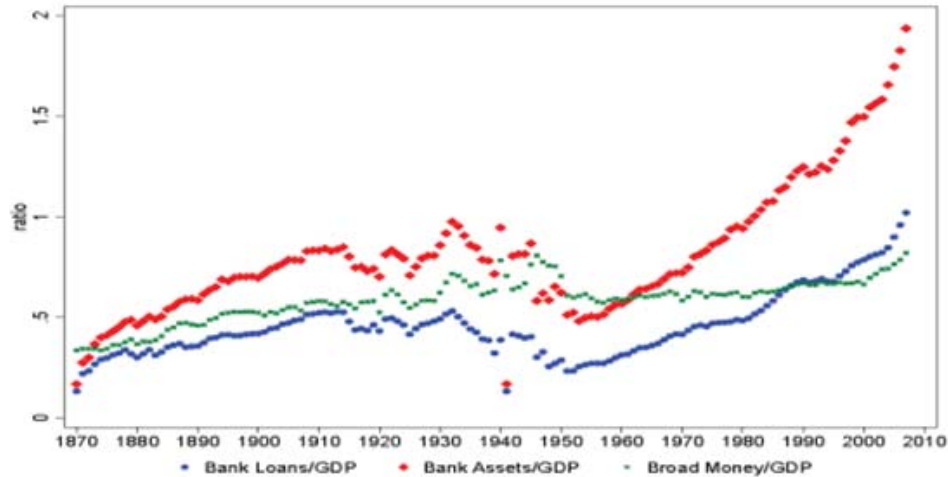
Since the end of the last monetary anchor (that is, Bretton Woods – itself a soft monetary anchor), commercial banks have been able to create money at will. Indeed, whenever they make a loan, they create a deposit (that is, create money).

To quote the ex-Governor of the Bank of England, Mervyn King:

"When banks extend loans to their customers, they create money by crediting their customers' accounts." – Mervyn King, ex BoE  
Governor speech 23 October 2012

As a result, the size of commercial banks' balance sheets relative to the size of their underlying economies has ballooned in recent decades, as shown in Figure 3. The key point is the sharp rise in both bank assets to GDP (red line) and bank loans to GDP (blue line) since 1960s/1970s to today.

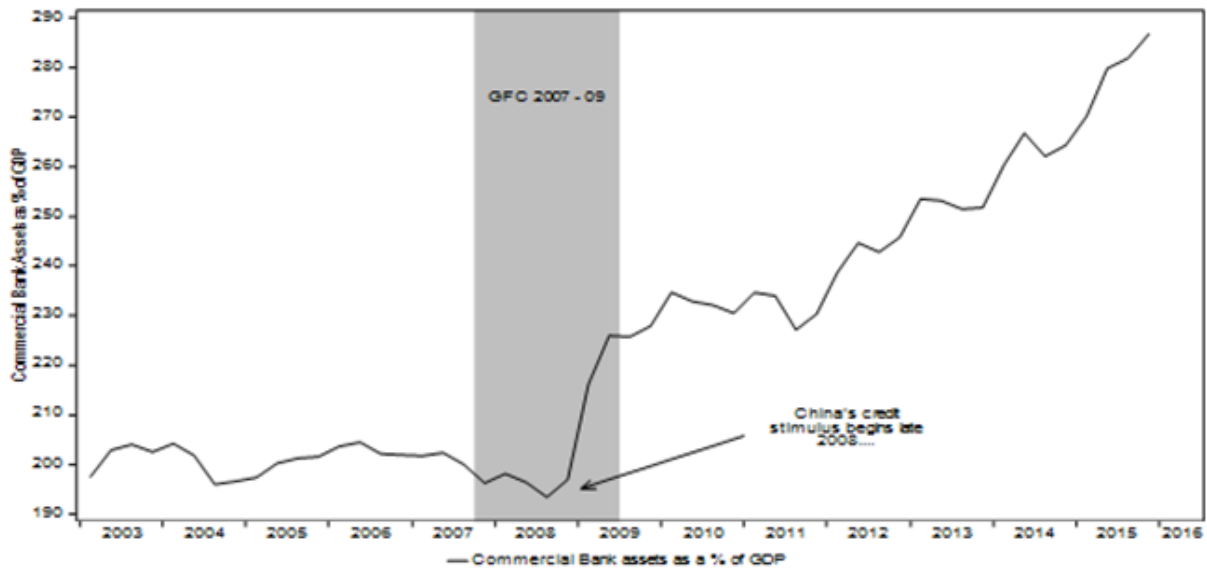
Figure 3: Advanced Economies Bank assets relative to GDP (1870 – 2008)



Source: Alan Taylor, July 2012, "The Great Releveraging". Extract: Longview Letter no 75, 2nd September 2013: "Financialisation or Financial Deepening? A.k.a. How much debt is too much? Pt 2". The Y axis is logarithmic. Bank loans are loans by banks in aggregate to the nonfinancial sector, excluding interbank lending and foreign currency lending. bank assets are equal to the total balance sheet size of all banks in aggregate. Broad money is M2 or a proxy thereof. Data and more detailed definitions can be found in Schularick and Taylor (2012).

The most recent example of a rapid expansion of a commercial banking sector is in China. China's commercial banking sector has grown from US\$10 trillion to US\$30 trillion in the past few years and is now three times Chinese GDP (note, China is a US\$10 trillion economy). There has been similar growth in other EM banking systems in this last global economic cycle (i.e. since 2009).

Figure 4: Chinese Commercial Bank assets relative to GDP (1870 - 2010)

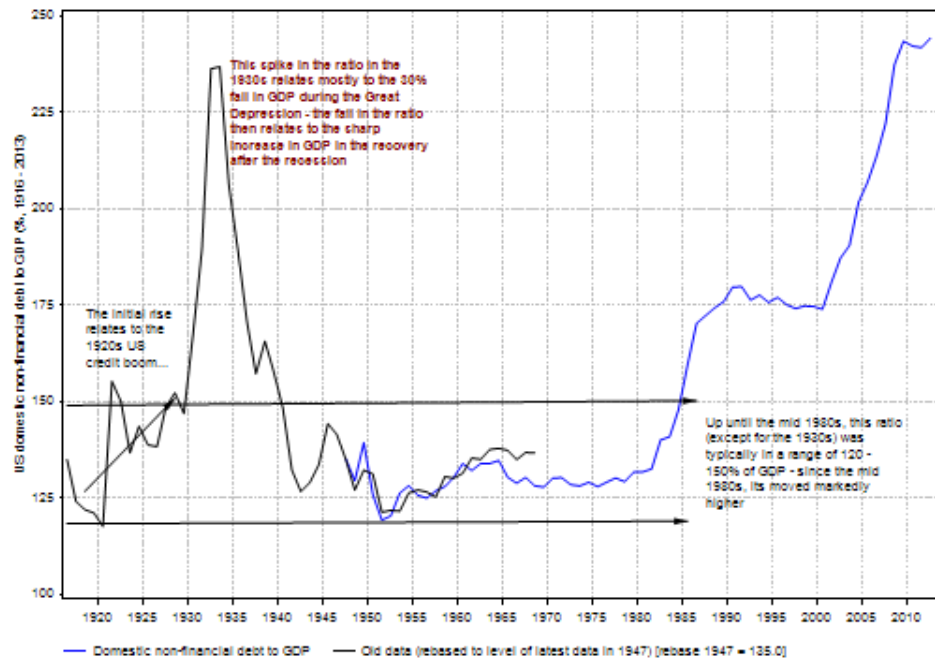


Source: Longview Economics, Macrobond. Extract from Longview Letter no 100, 25 February 2016: "China's Trilemma, a.k.a. Is China Heading for a Recession?"

The other side of ballooning commercial banks' balance sheets is growing indebtedness of the private sectors. Private sector (and total economy) debt to GDP has been growing rapidly for the past few decades across most of the world's major economies.

The long-term US debt to GDP chart gives a good long term historical context (given limited long-term data for other countries). From the beginning of the data (early 1900s) through to the late 1980s, US domestic non-financial (i.e. households, companies & governments) debt to GDP was broadly range bound with some cyclical to between 120% to 150% of GDP. In the 1930s, the ratio spiked because GDP fell 30% in the Great Depression. As GDP recovered rapidly, that spike reversed quickly. From the late 1980s through to the GFC, the debt ratio marched higher, from sub 150% of GDP to approximately 250% of GDP.

**Figure 5: US total domestic non-financial debt to GDP (1916 to present)**



Source: Reuters EcoWin. Extract from Longview Letter no 75, 2 September 2013: "Financialisation or Financial Deepening? A.k.a. How much debt is too much? Pt 2". Prior to the 1980s, the norm for this debt ratio was 120% to 150% of GDP (other than the early 1930s when it spiked as a result of the 30% fall in GDP).

In most other advanced (and increasingly EM) economies, the pattern and increase in the debt ratios in recent decades is similar. Figure 6 shows McKinsey's analysis of recent trends across a number of major world economies.

Figure 6: Change in Debt to GDP ratios for a variety of economies since 2007

Advanced economy
  Developing economy
  ↓ Deleveraging
  ↑ Leveraging

Rank	Country	Debt-to-GDP ratio <sup>1</sup> %	Real economy debt change, 2007–14 Percentage points				Financial sector debt change
			Total	Government	Corporate	Household	
1	Japan	400	64	63	2	-1	6
2	Ireland	390	172	63	90	-11	-25
3	Singapore	382	129	22	92	15	23
4	Portugal	358	100	83	19	-2	38
5	Belgium	327	61	34	15	11	4
6	Netherlands	325	62	38	17	7	38
7	Greece	317	103	70	13	20	1
8	Spain	313	72	62	-14	-6	-2
9	Denmark	302	37	22	7	8	37
10	Sweden	290	50	1	31	18	37
11	France	280	66	38	19	10	15
12	Italy	259	55	47	3	5	14
13	United Kingdom	252	30	50	-12	-8	2
14	Norway	244	13	-16	16	13	16
15	Finland	238	62	29	17	15	24
16	United States	233	16	36	-2	-18	-24
17	South Korea	231	45	15	19	12	2
18	Hungary	225	35	15	21	-1	10
19	Austria	225	29	23	6	0	-21
20	Malaysia	222	49	17	16	16	6
21	Canada	221	39	18	6	15	-6
22	China	217	83	13	52	18	41
23	Australia	213	33	23	-1	10	-8
24	Germany	188	8	17	-2	-8	-16
25	Thailand	187	43	11	6	26	21
26	Israel	178	-22	-4	-21	3	-2
27	Slovakia	151	51	28	8	14	-5
28	Vietnam	146	13	10	-1	5	2
29	Morocco	136	20	8	7	5	3
30	Chile	136	35	6	20	9	9
31	Poland	134	36	14	9	13	9
32	South Africa	133	19	18	2	-2	-3
33	Czech Republic	128	37	19	9	9	4
34	Brazil	128	27	3	15	9	13
35	India	120	0	-5	6	-1	5
36	Philippines	116	4	-3	9	-2	-5
37	Egypt	106	-9	9	-18	0	-8
38	Turkey	104	28	-4	22	10	11
39	Romania	104	-7	26	-36	1	-4
40	Indonesia	88	17	-5	17	6	-2
41	Colombia	76	14	1	8	5	3
42	Mexico	73	30	19	10	1	-1
43	Russia	65	19	3	9	7	-4
44	Peru	62	5	-10	11	5	2
45	Saudi Arabia	59	-14	-15	2	-1	-8
46	Nigeria	46	10	7	1	2	-1
47	Argentina	33	-11	-14	1	2	-5

Source: World Economic Outlook, IMF, BIG, Haver Analytics, national central banks, McKinsey Global Institute Analysis. Ranked by real economy debt-to-GDP ratio, 2Q14. Includes debt of households, non-financial corporations, and government; 2Q14 data for advanced economies and china; 2013 data for other developing economies. Numbers may not sum due to rounding.

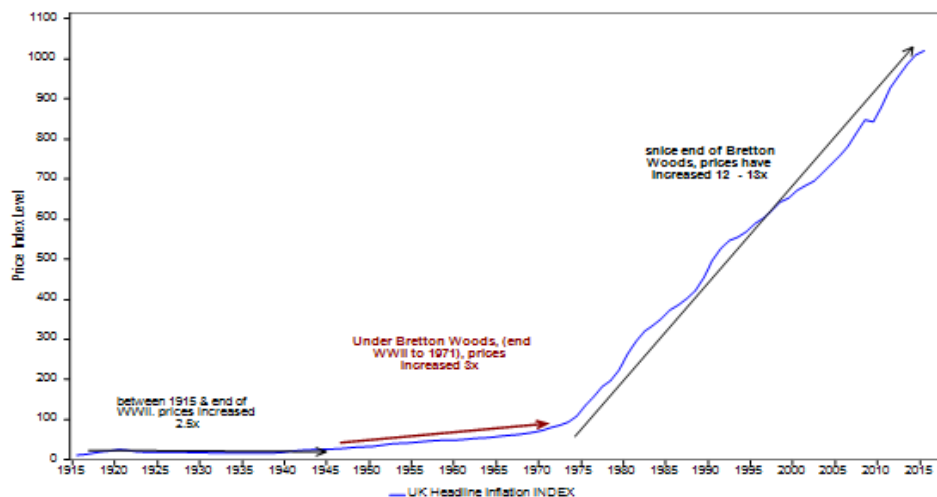
As McKinsey's work shows, most economies have continued to increase their leverage ratios since 2007 – and most have debt to GDP ratios above, even significantly above, the US cyclical norms from 1900 through to the mid-1980s (that is, above the 120% to 150% of GDP range). Added to that, most economies have further increased their leverage ratios since 2014 (the date of this analysis).

Since 2009, as the US has embarked on deleveraging, other parts of the world have been leveraging up more rapidly (a theme we call "Pass the Debt Parcel"). As such, total global debt (according to McKinsey) has increased by US\$57 trillion since 2007, while global debt

to GDP has increased from 269% (world GDP, 2007) to 286% (as of Q2 2014). For further McKinsey analysis see Appendix 1.

As a result of commercial banks' unanchored ability to create money, along with a dramatic rise in commercial banks' balance sheets and global indebtedness, the world economy has also experienced a dramatic rise in price levels (for context, think of Friedman's most famous quote "Inflation is always and everywhere a monetary phenomenon"). The UK Consumer Price Index, for example, while flat for centuries has moved up dramatically in more recent decades during the unanchored liquidity system. That CPI experience has been replicated, to a greater or lesser extent, in most of the world's major economies.

**Figure 7: UK Headline Inflation Index (1915 – present)**



Source: Longview Economics, Macrobond

Inflation, though, has not just been confined to consumer prices. Growth in credit has also led to dramatic house price inflation, as well as inflation in other asset prices. At this juncture, it's worth noting that the majority of the asset side of most commercial banks' balance sheets is the residential mortgage lending book. In his recent book, *Safe as Houses*, Neil Monnery examined house prices over hundreds of years in a number of developed economies. He found that the rapid rise in house prices in a number of countries in recent years has been the exception, not the norm. Yes, there have always been housing booms and subsequent busts – but not to such an extent and not across such a wide dispersion of countries.

".. for a total of 37% of the time [ie. across a variety of countries and 110 years of history – Ed], real prices fall for 10 years or more. In just under a fifth of cases, real house prices increase modestly at between 0% and 1%. In just over a fifth of cases, prices increase by between 1% and 3% and, in just a fifth of cases, the rises are above



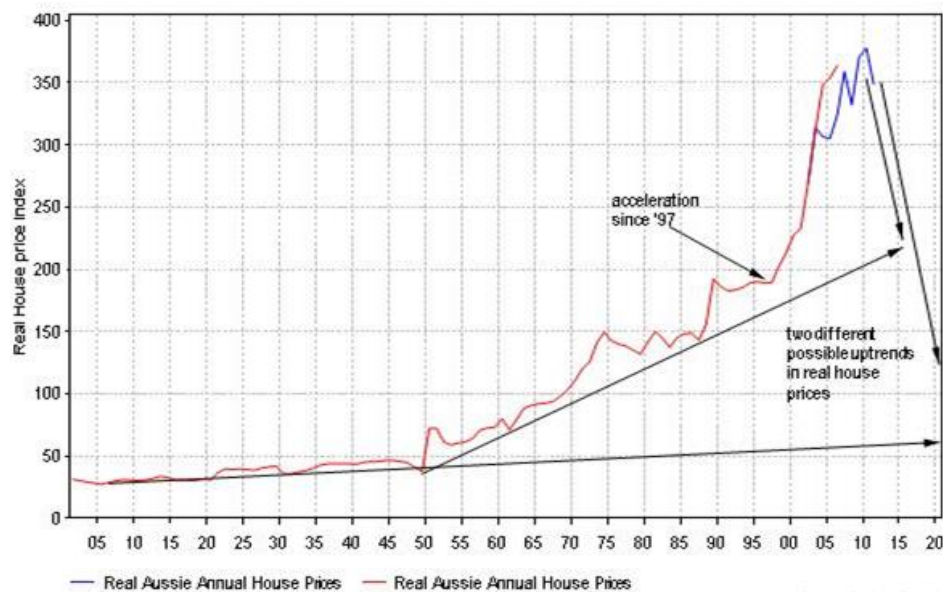
3%... there were 109 periods in which prices rose by more than a third over the course of a decade (a gain of over 3% each year for a decade). Nearly half of these have occurred since 1995\*

– N Monnery, 'Safe as Houses', p135–6, published October 2011

Monnery's analysis is based on the distribution of price increases across four countries and one city (i.e. France, Norway, USA, Australia & Amsterdam) from 1900 to 2010, looking at rolling 10– year windows.

A cursory glance at the house price chart (Figure 8) for Australian housing over 100 years (adjusted for consumer price inflation) makes the point clearly. Note the acceleration since 1997 which is a key date for many global debt and housing charts, as it's around that time that many of them start to accelerate.

**Figure 8: Australian real house price index (1900 – 2011)**



Source: Reuters EcoWin. Extract from Longview Letter no 44, 16 April 2012: "The History of House Prices & House Price Bubble Deflations". Intriguingly, while 47 of those 109 periods with greater than a third increase over a decade were since 1995, a further 19 of them occurred in France post WWII as the market recovered, the rest are spread around evenly. Excluding France, the last 15 years appear even more extreme.

The real indebtedness figures, however, are considerably worse than they seem from the above analysis. Off balance sheet debt should also be included. The growth in derivatives, the majority of which are off balance sheets, has been rapid in recent decades. In 1980, notional outstanding derivatives were close to zero. By 1990, the market had reached

approximately US\$10 trillion (approximately 1 times world GDP at that time). By their peak in 2008, notional outstanding had reached 11.2 times world GDP.

Economic historian Charles Kindleberger provides a helpful framework for thinking about the evolution and changing nature of the Western financial system in recent decades. As Kindleberger explains (see *World Economic Primacy*), in the early stages of an emerging world power, the purpose of the financial system is to:

"promote trade and industry through short and sometimes long-term capital lending..."

That is, to intermediate between savers (i.e. lenders of capital) and borrowers (i.e. investors of capital) and to engage in the process of capital allocation and, therefore, wealth creation in the economy.

In past decades, however, large parts of the US (and Western) financial system, most notably the large banks, have become self-serving, rather than promoting trade and industry. Their existence is no longer primarily about connecting lenders and borrowers; their primary *raison d'être* has become to trade assets. As Kindleberger states:

"... and ultimately (i.e. in the final phase of world economic primacy) [the financial system] moves to trading assets and a preoccupation with wealth rather than output. Merchants and industrialists graduate from risk taker to rentier status..."

Or, in the words of Peruvian development economist, Hernando de Soto, author of *The Mystery of Capital*:

"The increase in the number and kind of derivative contracts – including some, like credit default swaps, that were traded over the counter rather than on exchanges – created a new kind of shadow economy, De Soto argues. "It reminds me of the way we used to navigate on the coast of Peru," he says. He explained that you'd have close-in sailors navigating by keeping an eye on the coast, then farther-out sailors who navigated by watching the boats that were watching the coast, and so on. "Somehow you got very far away from the coast.""

– *Forbes* magazine 14 December 2009, *Shining a Light on Shadow Economies*

### **Bottom line**

With a large global financial system, large banks relative to the size of economies, and a non-financial private sector which has become hugely levered in the past three to four decades, it's difficult to argue with Kindleberger's framework. The flipside of this leveraging

of the economy is that productivity growth, which is genuine, longlasting wealth creation – the magic of economic growth, driven by innovation and technological progress – has stagnated, registering its poorest performance in the West on record (i.e. at least since WWII).

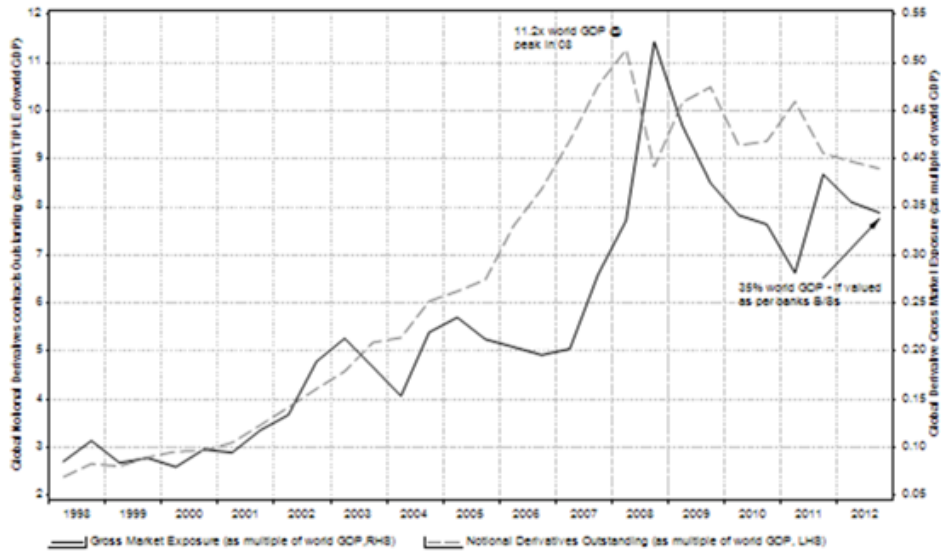
Multiple theories abound as to why this has been the case, especially when technological innovation seems so high. Most convincing amongst those theories, we would argue, is the overcapacity that's left when credit booms build up and which is then not properly addressed when cheap money halts the natural recessionary process from playing out. Overcapacity then in turn undermines profitability and incentives to invest – and, therefore, undermines investment and productivity growth.

So, in conclusion, the world economy continues to inflate the largest private sector credit boom (relative to GDP) ever experienced in history, as confirmed by Professor Graeber's extensive study of the history of debt "[Debt: The First 5,000 Years](#)", published in July 2011

The policy response to that hugely levered global economy has become ever lower interest rates (first zero, now negative), money creation to buy financial assets and, now, a discussion of money creation to fund fiscal stimulus. If our diagnosis of the problem is correct, the cure rests not in more of the same but in dealing with the excess capacity, reducing over-indebtedness, shrinking the oversized financial system and working out how to reverse the lack of productivity growth. The cure, therefore, is not going ever more unconventional but rather resetting the system – a reboot and a shrinkage of the global financial system down to a size such that it fits the global economy, serves it and, in turn, doesn't dominate and dwarf it. Only then will Keynes' animal spirits return. Only then will normal economic growth resume.

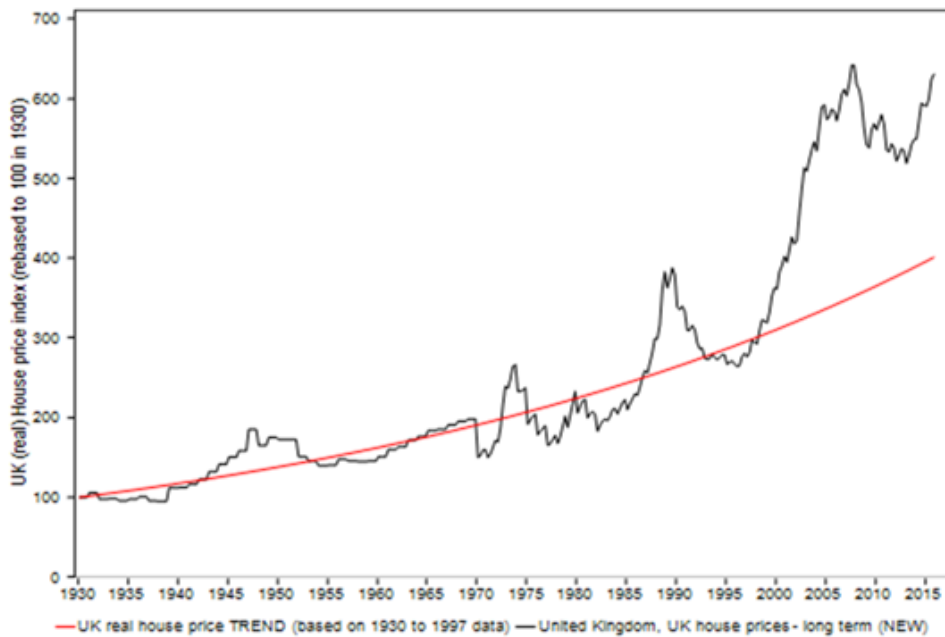
APPENDIX: VARIOUS CHARTS & ANALYSIS

Figure 9: Global derivatives outstanding as a % of World GDP (two valuations methods)



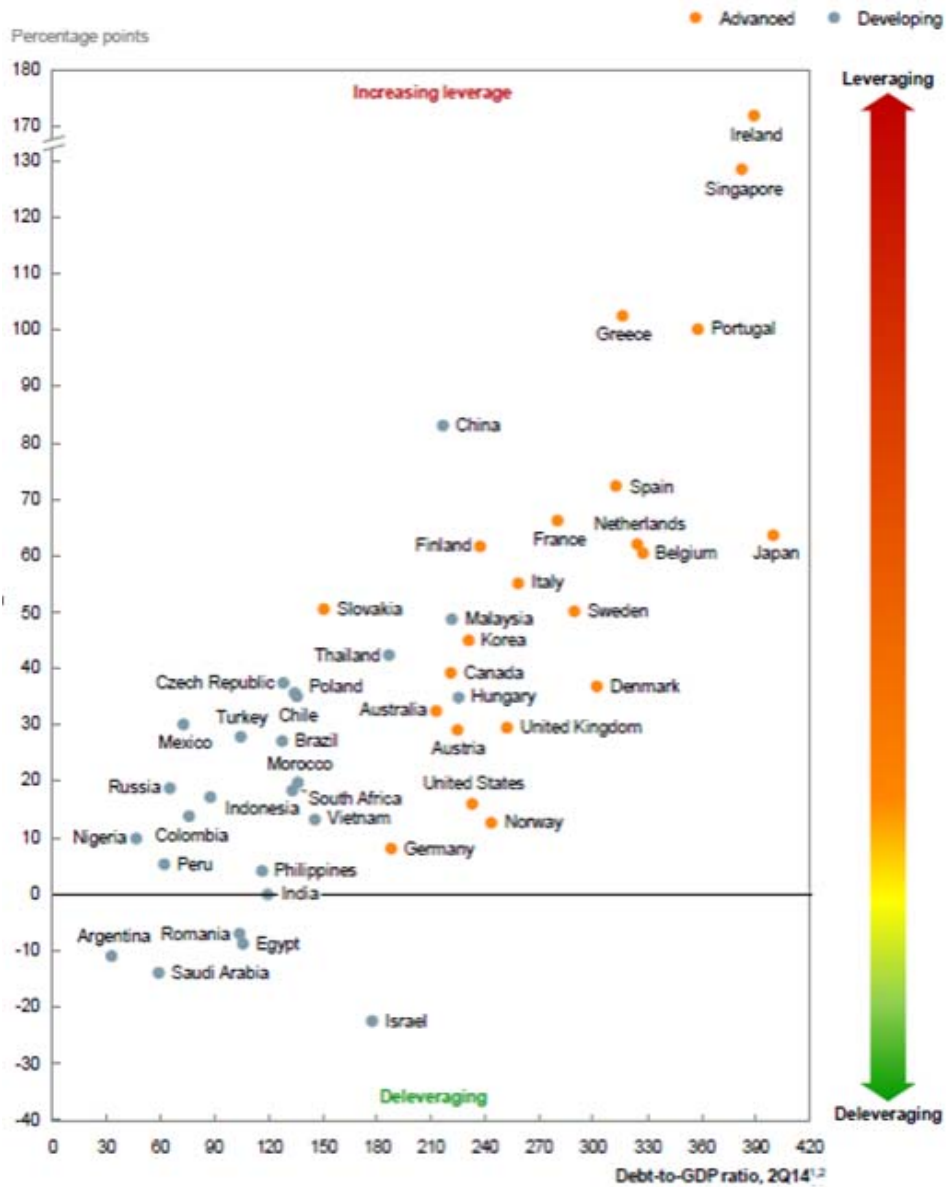
Source: Reuters EcoWin. Extract from Longview Letter no 75, 2 September 2013: “Financialisation or Financial Deepening? A.k.a. How much debt is too much? Pt 2”

Figure 10: UK long-term real (i.e. inflation adjusted) house price index



Source: Longview Economics, Macrobond

Figure 11: Change in Debt to GDP ratios 2007–2014 shown with current (2014) debt to GDP – various countries



Source: Haver Analytics, national sources, McKinsey Global Institute analysis. McKinsey Global Institute, Feb 2015: “[Debt and \(Not Much\) Deleveraging](#)”. Debt owed by households, non-financial corporates, and governments. 2Q14 data for advanced economies and China, 4Q13 data for other developing economies.



*Chris Watling is CEO and Chief Market Strategist with Longview Economics. Longview Economics is an independent consultancy specialising in macroeconomic, thematic and commodity research. It offers strong macro and quantitative views across all major asset classes and markets. Chris is a regular speaker at PortfolioConstruction Forum programs.*

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