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What caught my eye? v.78

How long would tranquil autumn last?

In this issue we ask whether we are residing in a perpetual Kondratieff autumn or perhaps cyclicality is about to break out with devastating consequences.

In 1926, Kondratieff published one of the more influential economic papers, where he analysed long cycles of industrial countries between 1789 and 1920s. His research described a self-healing capitalist system, characterized by business cycles (five decades or so) that move from exuberance of ‘summer’ (rising confidence and prices) to ‘autumn’ (ebbing pressures but rising bubbles) and ‘winters’ (output and prices below trend lines, bubbles burst) and finally ‘spring’ (return of confidence and growth) *ad infinitum*. In Stalinist Russia that believed in insoluble and terminal internal contradictions of capitalism, systemic self-healing was a dangerous idea, which ultimately cost Kondratieff his life.

While over centuries this framework had accurately explained capital swings and conflicts, by ‘90s, it seemed to have stopped working and hence fallen into disuse. Kondratieff’s model predicted the beginning of a new winter around ’00, which was expected to last a decade or two. It should have been accompanied by a rise in bankruptcies, repudiation of debts and strong deflationary pressures. Although the world did experience a shock of dot.com bust, instead of enduring a frigid winter, investors replaced the equity bubble with a real estate bubble and after ’07 with bubbles in every conceivable asset (from bonds to fine wines).

It is clear that what differentiated the last three decades from preceding centuries was an aggressive stance taken by central banks (CBs). Instead of taking away the ‘punchbowl’, CBs encouraged the party to go on well past midnight, in full confidence that they can mop up consequences of a bust and re-start a new cycle, without messy bits of unemployment, bankruptcies and debt write-offs. Indeed, claims were made that economic cycles were abolished. Although since ’07, the hubris of economic profession was dispelled, there is no evidence that recognizable business cycles returned. Instead, the new debt- and asset-driven economic model has come to dominate. It has become a world of ***perpetual ‘autumn’*** with an urge to keep growth and wealth creation irrespective of cycles.

The new world is one of low productivity, disinflation and stagnation. However, it is also a world of shallow recessions and weak but longer-lasting recoveries. While technology remains the best answer for underlying drivers (here), it is the public response to these pressures that shapes outcomes; hence political urge to negate cycles. Investors are inundated with warnings that the US recovery is already far longer than the historical average, and that one must be prepared for a recession. It is hard to take these claims seriously, as durations are premised on a self-healing system with excesses of summers worked-out in frigid winters. ***However, why should there be a winter if there was no summer?***

Perpetual autumns tend to be kind to financial instruments. They strike just the right balance or what subsequently has been coined as ‘goldilocks’. Although growth is lower, so are interest rates and pricing pressures. It does not have the ‘bad stuff’ of winter and neither does it have pressures of summer. Autumn is a time for bond and equity markets; winters & summers are poor for equities. ***We believe today’s debt-driven economies can only thrive in the warm glow of autumn***. As CBs continue to constrain cycles, what appears to be a perpetual autumn persists. However, gravity cannot be defied forever; an ‘event frontier’ eventually beckons. How long would autumn last? ***As there is no desire to face winter, autumn might need to age far beyond normal time-frame, before growth and inflation slip below zero.*** In the meantime – no cycles or winters.

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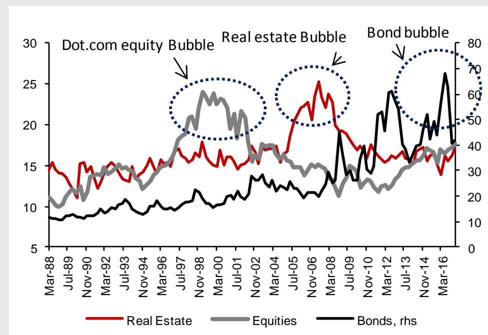
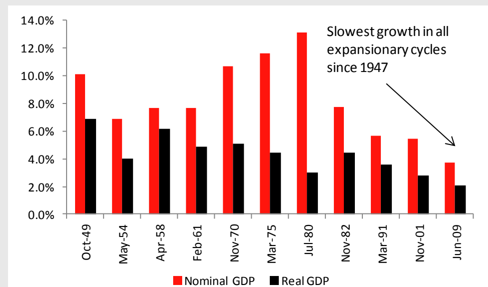


Source: CEIC; Macquarie Research, July 2017

US – Expansionary cycles GDP growth (%) – expansions are progressively weaker



Source: Bloomberg; Macquarie Research, July 2017

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Kondratieff waves & Greenspan ideology

"Moreover, it was far from obvious that bubbles, even if identified early, could be pre-empted short of the central bank inducing a substantial contraction in economic activity—the very outcome would be seeking to avoid… nothing short of a sharp increase in short-term rates that engenders a significant economic retrenchment is sufficient to check a nascent bubble; instead, the focus should be on 'mopping up afterwards' or 'to mitigate the fallout when it occurs and, hopefully, ease the transition to the next expansion", Alan Greenspan testimony in 2002 following dot.com collapse.

"My thesis in this lecture is that macroeconomics succeeded; its central problem of depression prevention has been solved… there remain important gains in welfare from better fiscal policies, but I argue that these are gains from providing people with better incentives to work and to save, not from better finetuning of spending flows."— Robert Lucas, American Economic Review, 2003

Modern world has an asymmetric response to asset bubbles

The above long quote from Alan Greenspan's testimony in the wake of dot.com bubble is as pure expression of the core Fed's thinking in the lead-up to GFC as one can possibly find. It describes how the Fed was viewing its ability or even desirability of identifying and potentially preventing asset bubbles, and clearly expresses preference for 'mopping up' after the bubble had already burst and aggressively working towards recovery. ***In other words, consciously or otherwise, Greenspan was advocating an asymmetric response to bubbles***. Pretty much no reaction as bubbles go up, followed by very aggressive monetary easing after bubbles burst to 'mop up' collateral damage. There appears nothing in Greenspan's testimonies regarding questions of monetary policies driving potentially significant misallocation of resources and there is very little to suggest appreciation that ***asymmetric risks tend to beget new bubbles and encourage reckless behaviour***. It was only in 2008 (after GFC) that by now former Fed Chair accepted that there was a significant flaw in this view of the world: "I have found a flaw… I made a mistake in presuming that self-interests of organizations… were such that they were best capable of protecting their equity in the firms."

A shorter quote from Lucas's Presidential address to the American Economics Association represents a similar ***apogee of invulnerability that permeated the economics profession prior to GFC.*** While no one would deny business and capital markets completely, nevertheless, what Lucas was saying is that bulk of the business cycle problems have already been solved and that there is no need for counter-cyclical fiscal policy while monetary policies most of the time do not have much of an impact, and only need to be utilized aggressively at the time of major shock (i.e. not that dissimilar to Greenspan's 'mopping up' afterwards argument). The fact that monetary policies determine the single most important price in the economy (i.e. price of money) was ruled to be largely irrelevant.

These views are worlds apart from Schumpeter or Kondratieff from an earlier part of 20th century, who firmly believed in business and capital market cycles and perhaps more importantly in the benefit of disruption in renewing economies and held that Capitalism was essentially a self-regulating system.

One of the phrases that we have utilized in our reports far too many times in the past best summarizes differences of opinion between current and the previous generations of economists. In more traditional liberal capitalism age (or what Anatole Kaletsky once described as 'Capitalism 1.0'), private sector ruled supreme and the role of public sector was confined to extremes (such as raising money for war or eliminating the most damaging of externalities or looking after the most needy members of the community), and business and capital cycles were supposed to work their way through the economy. As Peter Drucker highlighted, these were the times when the ***government was working towards controlling 'climate but not weather'***. In other words, ameliorating scorching summers and softening the most bitter of winters, rather than ensuring that the temperature always stays between 18 and 25 degrees Celsius, with limited showers and certainly no thunderstorms. It was the Great Depression of the 1930s that changed this 'private sector supremacy' view and ushered what Kaletsky called 'Capitalism 2.0', with fiscal policies used aggressively to counterbalance business cycles to ensure that cycles are contained. Since the early 1980s, this activism was replaced by aggressive use of monetary levers while fiscal policies were held in abeyance. ***It was this reliance on public levers that has effectively negated the more conventional business and capital market cyclicality.***

This is completely unlike classic capitalism cycles

However, how were relatively free liberal economic systems supposed to function?

As Kondratieff cycles (or waves as Schumpeter later re-named them) and similar cycles that were described by various economists of 20th century (from Kuznets, Mandel to Rostow and Mensch), these were ***based on private sector responses to technological innovation, demographics, exuberance or mood depression during various stages of business cycles***, from rapid growth and rising inflation; overstocking and de-stocking from rapid asset price appreciations to bubbles and their violent endings.

These waves were essentially moving from frigid 'winters' of de-stocking, collapse of values, credit crunch, defaults and debt repudiations to exuberance of summers, when growth rates were above the trend lines and investors as well as businesses gradually lost their fear, leading to asset bubbles. The downward cycles usually generate most of the technological advances, as the state and businesses attempt to find new ways of growing amidst poor economic climate. The upwards cycles are periods where economies utilize new inventions to drive economic growth above the longer-term trend lines. As economic growth rates improve, inflation rates and asset prices accelerate. Subsequent studies by Joseph Schumpeter also identified stages in the Kondratieff (or K-waves) with the key technological innovations, such as the steam, combustion engine, electricity, railways, cars and information technology.

The various forms of wave theories had a fairly good track record of predicting the Great Depression to numerous conflicts, ranging from the Napoleonic Wars, the American Civil War, the First and Second World Wars, Vietnam War as well as stagflation of 1970s. They also explained destruction of capital as one technology replaced another (such as collapse in value of canal investment in Britain following arrival of steam engine). Although there are multiple disagreements about the exact turning points, most economists who support various forms of wave theories, identified several stages of Kondratieff cycles, which for stylistic purposes are quite often referred to as 'seasons':

1. ***Spring***: describes the beginning of a new long-term upswing cycle. This period usually witnesses a gradual return to consumer and investment confidence. It is characterized by a gradual acceleration in GDP growth rates, inflation and firming of commodity prices.
2. ***Summer***: best described as a period of exuberance and rising inflationary pressures, commodity prices and interest rates, as central banks attempt to contain exuberance.
3. ***Autumn***: period of declining interest rates and inflation rates, ebbing commodity prices but it is also usually a period of credit boom that creates a false sense of prosperity and it usually ends in various asset bubbles.
4. ***Winter***: excess capacity gets worked off by debt repudiation, commodity deflation and is accompanied by strong disinflationary pressures and quite often recession or depression. It should be also accompanied by various forms of banking crises.

Fig 1 US Kondratieff long waves – stylistic representation

	Kondratieff Waves			
	1	2	3	4
Spring	1789-1802	1845-1858	1897-1907	1950-1966
Summer	1803-1816	1859-1864	1908-1920	1967-1981
Autumn	1817-1835	1865-1874	1921-1929	***1982 - 2017?***
Winter	1836-1844	1875-1896	1930-1949	***?***
Technology	Steam	Combustion	Electricity	Mobility
	Textiles	Railways/Steel	Chemicals	IT/Information

Source: Ayres, 1989, Mandel, 1980; Korotayev, 2010; Macquarie Research, July 2017

We do not intend to get deeply involved in the academic debates as to either essence or timing of various waves (or indeed sub-waves), except to argue that ***until well into 1990s, the methodology seems to have described the prevailing environment pretty well.***

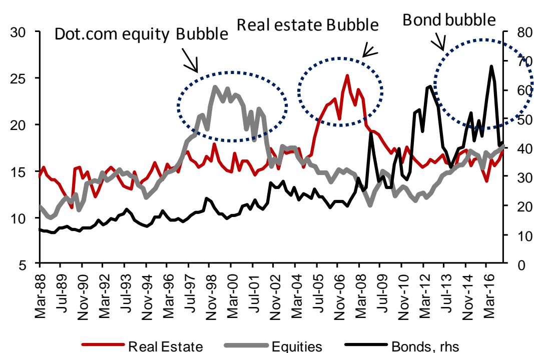
For example, a deep winter of the 1930s gave rise to what definitively looked like a spring in the 1950s and most of the 1960s, which in turn gave rise to inflationary pressures of the late 1960s until 1980. A classic autumn started in the 1980s and carried through most of the 1990s. Waves are also discernible in bitter winters of the late 1830s and through the 1840s and indeed during the long recession of the 1880s-early 1890s (which was known as the Great depression before the 1930s). Kondratieff waves also correspond nicely with strong and globally synchronized recovery in the early 1900s.

However, over the last two decades, cycles have largely disappeared…

However, the last two decades were not kind to Kondratieff. While, the methodology did predict that the autumn of 1980s-90s would eventually collapse amidst asset bubbles in late 1990s and indeed, the world did experience the second largest equity bubble bust (dot.com) in 2000; this event did not lead to 'winter', as envisaged by Kondratieff-style waves. Instead, the equity bubble was replaced by the housing and real estate bubbles in 2004-07, which after its 'bursting" in 2008-09, was replaced by massive bond market bubble in 2008-15 and now these two bubbles are being complemented by bubbles in almost every asset class (from equities and bonds to vintage cars and fine wines).

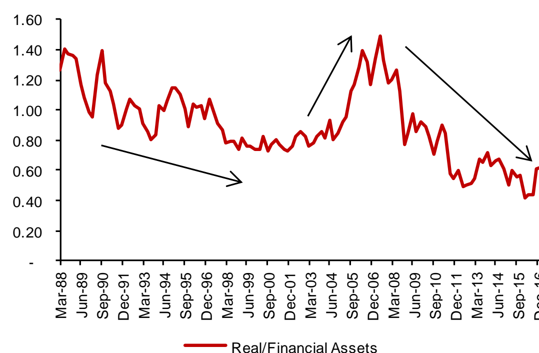
In the chart below (left), we have calculated an effective real estate PE by estimating medium monthly rental yield. In the case of bonds, we used an inverse of 10Y bond yield and for equities we utilized 12-months forward SPX PER. We have also attempted to illustrate the extent to which financial assets are now outpacing real assets by dividing physical real estate values by an average valuation of financial assets (assuming 60%:40% portfolio allocation of equities and bonds). Real assets are now around 0.6x financial assets vs levels which would have been typically closer to 1x-1.2x in 1980s and through the first half of the 1990s.

Fig 2 US – Rolling Bubbles (PER x)



Source: CEIC, Macquarie Research, July 2017

Fig 3 US – Real vs. Financial Assets (x)



Source: CEIC, Macquarie Research, July 2017

Thus, although one bubble did burst (as predicted by Kondratieff), instead of ushering 'winter' of adjustment and discontent, it just led to more bubbles.

… as one bubble was replaced by another without clearance

The same applies to the predictions by Kondratieff that 'winter' will be characterized by de-leveraging, as businesses, governments and capital markets run out of capacity and/or desire to extend and undertake credit. On the contrary, since 2000, investors have not witnessed waves of defaults (unlike 1880s or 1930s), and there were no (or very few) outright debt repudiations. Instead, as we have been highlighting for some time, ***global and the US economies' further accelerated pace of financialization. Interest rates have fallen to the lowest ever levels, encouraging further borrowing of future GDP to the present***.

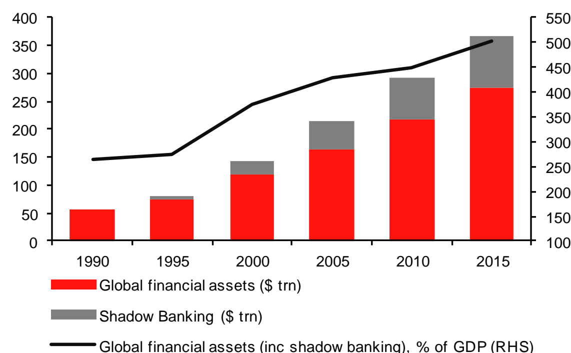
The overall level of global debt now exceeds US$220 trillion (compared to ~140 trillion in '07 and less than US$90 trillion in '00, at the time of the dot.com crisis). The US debt currently exceeds US$66 trillion vs. ~US$34 trillion in '00. The global debt burden now approximates 300% of GDP, while in the US it is ~360% vs. ~270% in '99-'00. Indeed, as highlighted in our various notes, ***debt level estimates underestimate the real level of financialization.*** As analysts prudently attempt to eliminate double-counting, they ignore massive proliferation of derivatives and other shadow banking instruments that allow investors, corporates and financial institutions to further leverage the overall system. Depending on how one counts derivatives, the overall value of financial instruments (ranging from equities and bond markets to repos, Eurobond and derivatives) is at least US$400 trillion and possibly closer to US$700 trillion or in other words 4x-5x and possibly up to 10x global GDP.

Fig 4 Global Debt (US$ trillion) (% of GDP)

	Households	Non-Financial Corporates	Financial Corporates	Government	Total
US$ trillion					
2000	19	26	20	22	87
2007	33	38	37	33	141
2014	40	56	45	58	200
2016	45	71	43	63	222
% of GDP					
2000	54%	73%	56%	62%	246%
2007	62%	72%	70%	62%	266%
2014	58%	81%	65%	83%	287%
2016	61%	94%	57%	84%	295%

Source: World Bank; BIS, Macquarie Research, July 2017

Fig 5 Global Financial Instruments (US$ trillion)



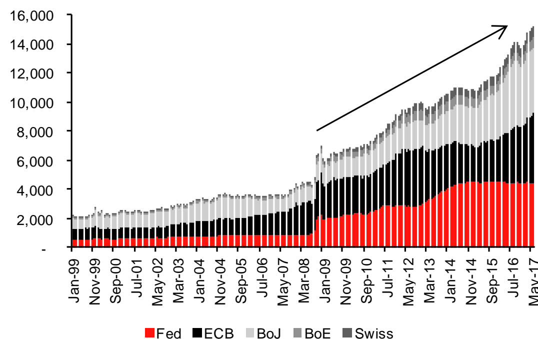
Source: MGI; BIS; Macquarie Research, July 2017

Financialization is the key

The above leveraging was facilitated by the triple 'deregulatory package' which proliferated after early 1980s (labour, product and capital markets), which not only integrated the world much tighter than at any time since 1913, but also encouraged capital market innovation and frantic creation of new financial instruments, supporting risk-taking and consumption via ever rising asset prices and suppression of volatility.

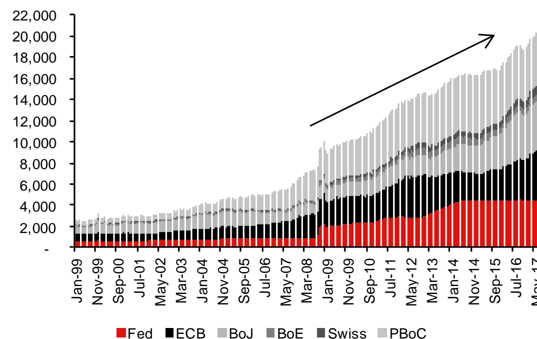
As leverage increased, instead of raising interest rates, the cost of capital had actually slumped. The key driver was not private sector, but rather it was the public sector which consciously attempted to prolong the cycle by suppressing volatility and cost of capital and encouraging risk taking. ***In other words, this was the opposite behaviour to what Kondratieff's 'winter' wave would have required.*** Prior to '07, the policies were mostly focused on rates but afterwards they increasingly worked through volumes as CBs accumulated assets that are now ~28% of Global GDP (or around 40% for G4+Switzerland).

Fig 6 G4 +Switzerland – Central Bank Balance sheet (US$ bn) – exceeds US$15 trillion



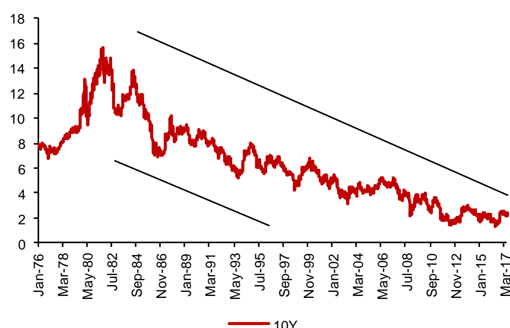
Source: Bloomberg, Macquarie Research, July 2017

Fig 7 G5 + Switzerland – Central Bank Balance Sheet (US$ bn) – passed US$20 trillion



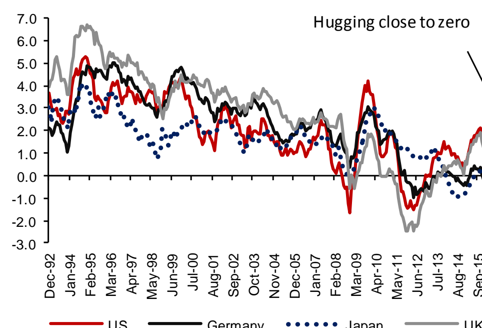
Source: Bloomberg; Macquarie Research, July 2017

Fig 8 US – 10Y Bond Yield (%) – steep channel



Source: Bloomberg, Macquarie Research, July 2017

Fig 9 Real 10Y Bond Yields – hugging zero



Source: Bloomberg; Macquarie Research, July 2017

The modern world is one without price discovery

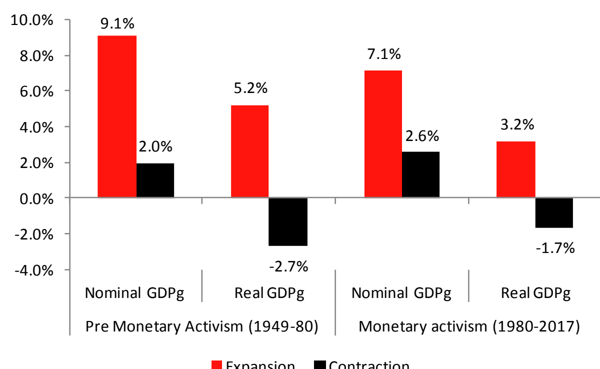
It is now a world that Kondratieff could not have envisaged in the 1920s. ***We believe it is a world without market clearance and without price discovery.*** In our view, it is a world where capital markets are suppressed and no longer provide constraining and policing function. Instead, as Kondratieff would have recognized from his home country (the Soviet Union), it is the state that is increasingly determining how capital will be allocated and how much clearance of past excesses is permissible while still keeping societies intact.

However, there is a price to pay for this suppression of pain and adjustment. There is a clear dividing line between the last three decades (from 1980s onwards) and the eras preceding. Essentially, aggressive use of monetary levers led to much longer periods of expansion and slightly shorter contractions. ***But the catch is that the pace of expansion has been getting progressively weaker.***

It is also a world of progressively weaker growth and inflation

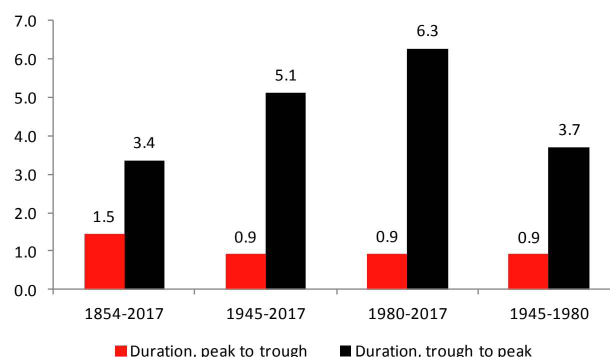
For example, the average expansionary phase since 1980 delivered gains of around 3.2% per annum real (vs. 5.2% average real growth in the periods between the 1949 and 1980), and the ***latest expansion yielded an average real GDP gain of only ~2.1%.*** At the same time nominal GDP expansion since 1980 was far shallower. Although duration of contractions remained broadly unchanged (just under 1 year), ***the period of expansion increased from 3.7 years between 1945 and 1980 to an average of 6.3 years in 1980-2017*** (and the current expansionary phase is now in its ninth year).

Fig 10 US – GDP growth (expansion vs. contraction phases) – Monetary era – much slower expansion, both nominal and real. contraction are less in real terms but also gain less in nominal terms



Source: Bloomberg, Macquarie Research, July 2017

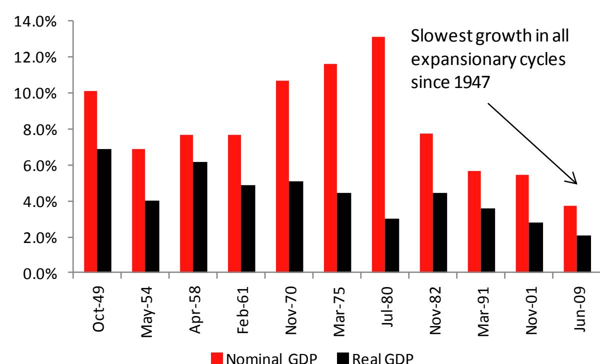
Fig 11 US – periods of expansion vs. contraction (years) – much longer expansionary periods



Source: Bloomberg; Macquarie Research, July 2017

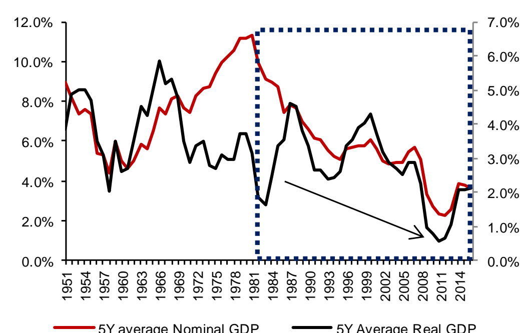
In our view, the key impact of growing suppression was far less volatility (not surprisingly) but also a much more sluggish pace of growth (both nominal and real) and after GFC the pace of growth has taken a further significant step down. For example, in the latest recovery phase, the real GDP growth rate averaged only 2.1% (and nominal was barely above 3.6%).

Fig 12 US – GDP growth in recovery stages (%)



Source: Bloomberg, Macquarie Research, July 2017

Fig 13 US – 5 Year Average Real & Nominal GDP (%)



Source: Bloomberg; Macquarie Research, July 2017

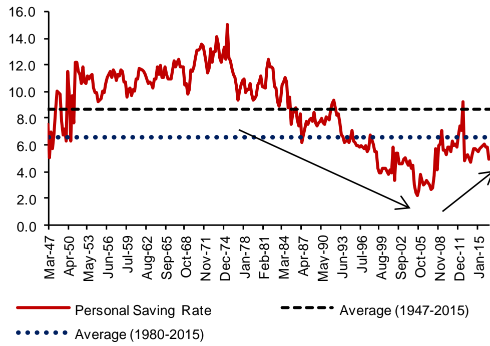
Suppression of cycles and volatility led to lower productivity and higher income & wealth inequality as well as rising debt dependency

Although we think it is clearly inappropriate to assign all of the guilt to monetary policies, as there were other factors at play (most importantly as we have consistently been highlighting the impact of the Third Industrial Revolution or Information Age), it seems indisputable to us that efforts to combat declining productivity through monetary policies have contributed towards lower capital formation and savings, further re-enforcing declining productivity trends. As described in our prior notes (here), it was largely the US policy (post Bretton Woods) that made it into the 'consumer of last resort'. ***These policies suppressed US savings and encouraged re-cycling not of the US surpluses (as was the case in 1950s and most of 1960s) but of the US current account deficits.***

The early 1980s was the beginning of the brand new world of financialization and unbalanced growth, with Japan, China, East Asia (Korea and Taiwan in particular) and Germany taking the other side of this 'Anglo-Saxon' trade. The global surpluses were in turn re-invested back into the US treasuries, mortgage-based and corporate securities, keeping rates low and encouraging even further over consumption. At the same time, de-regulation of global product and labour markets enabled the US corporates to offload and ship 'dirty and capital intensive' stuff to emerging markets, making the US corporates light and cash flow rich. However, it also implied acceleration of de-industrialization. It positioned the US corporates better for the future disruption, but it added to the country's already rising income and wealth inequalities.

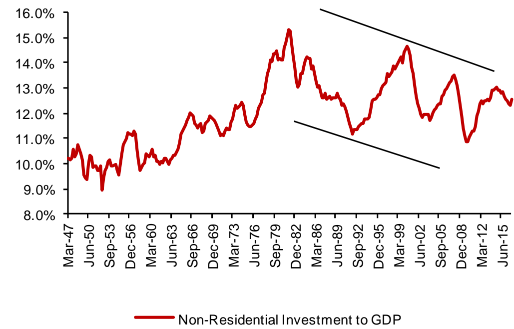
As the US (and the world) embarked on ever more intense financialization, the productivity of capital usage inevitably declined (as capital stock became increasingly misallocated), resulting in rapidly declining multifactor (TFP) productivity.

Fig 14 US – Savings collapse post monetization



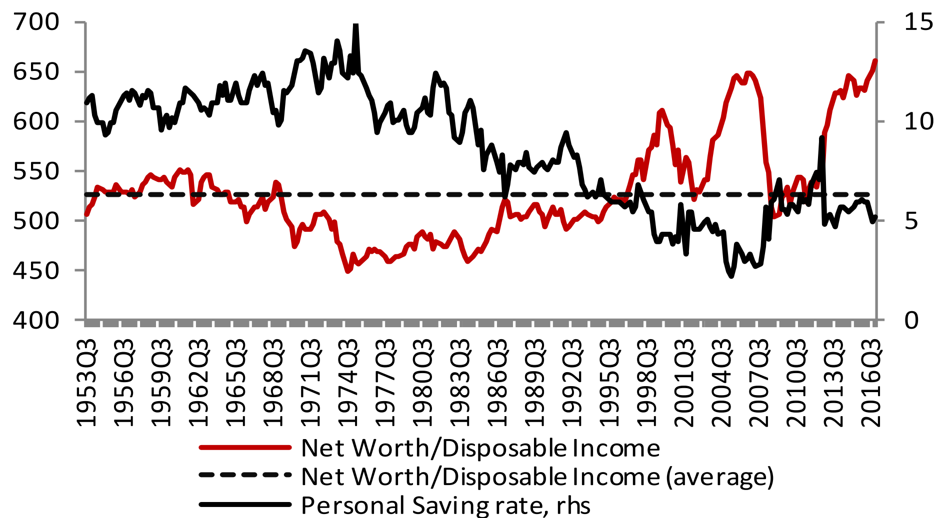
Source: CEIC, Macquarie Research, July 2017

Fig 15 US – Non-Residential Investment (% GDP)



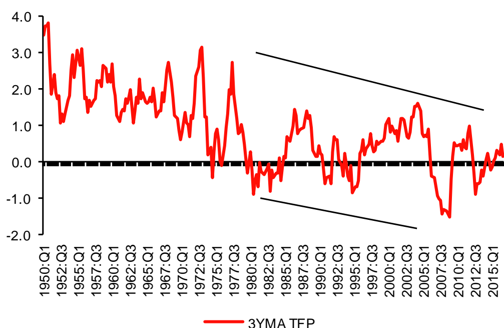
Source: CEIC; Macquarie Research, July 2017

Fig 16 US – Household Net Worth vs. Saving Rate – post monetization, consumption & saving dominated by asset values



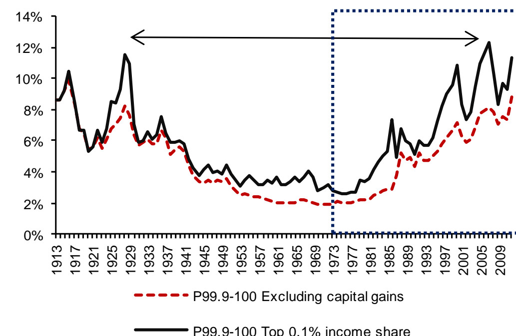
Source: CEIC; Macquarie Research, July 2017

Fig 17 US – TFP growth rates (3Yma %)



Source: SF Fed, Macquarie Research, July 2017

Fig 18 US – Income Share (0.1% of population)



Source: Saez; Macquarie Research, July 2017

The combination of technology and the societal response to disruption and stagnating productivity (financialization) has left the US ‘hooked’ on debt and asset based models of growth. And it is not just the US. As discussed in our prior notes***, the same symptoms are evident in pretty much all other jurisdictions (bar the least developed economies).***

Price discovery & private sector - RIP

'The pessimist complains about the wind; the optimist expects it to change; the realist adjusts the sails', William Arthur Ward

Central Banks are trapped

Essentially the above section described an environment where the conventional private sector no longer exists and price discoveries as well as volatilities are not permitted to escalate or at least they need to be severely constrained. It is the only way to ensure that low secular equilibrium is maintained. In our view, this environment is characterized by stagnating productivity, declining (and low by historic standards) GDP growth rates, strong disinflationary pressures, and declining (and low) cost of capital. We believe it is an environment where financialization requires that not only the 'cloud of finance' does not compress, but it must be encouraged to expand.

It seems to us that both economies and central banks are caught in a trap, with no obvious exits. As discussed in our latest quarterly review (*Rights, Wrongs & Returns - CBs – can slaves become masters?* 18 July 2017), we believe there are only three possible exit routes:

1. A spontaneous (and we would argue miraculous) recovery in private sector productivity. We maintain that it is nothing more than a hope and a prayer, and hope is not a very solid ground for policy decisions.
2. Governments and the states embark on a globally co-ordinated radical overhaul of policy frameworks. Instead of the current reliance on monetary levers or recent popular preoccupation with infrastructure investment in developed economies, we maintain that there is a much more effective set of policies that can be implemented. These range from re-build of social and welfare policies to significant investment in un-directional (or fundamental) research and changes in education and skilling systems to a massive build-up of a new version of the Marshall Plan for the least developed economies in Africa, Middle East, Central and South Asia.
3. Resolution of the current 'excess supply of capital and humans' through geopolitical and social dislocations that destroy surplus capital and reset economies.

As we believe none of these three alternatives are attractive policy choices, the line of least resistance is likely to be continuation of current financialization.

Anything that interferes with flow of capital is to be discouraged

However, as the system manufactures more and more capital and requires $3-5 of financial instruments for every incremental $1 of nominal GDP, it becomes increasingly unstable. We believe financialization is not possible without suppressed cost of money and suppressed volatility. ***Hence, anything that interferes with flow of capital is to be discouraged, as it would accelerate a fall towards the 'event frontier' and as gravity takes control, both inflation and real GDP outcomes would likely drop below zero***. We believe it is therefore imperative that liquidity must continue to grow and volatilities remain suppressed. This implies to us that CBs can never disconnect, and it is not normalization but managing a 'chronic disease' that is on the agenda.

While the current environment is quite distinct from anything that Kondratieff or Schumpeter had ever experienced, it is nevertheless, ***far closer to Kondratieff's autumn rather than to winter***. The autumn is characterized by ebbing activity, declining commodity prices and it is generally a period of declining inflation (but usually short of deflation) and rising asset bubbles, spurred by lower rates. What does it mean for asset classes?

Generally 'autumn' and 'spring' are the best seasons for equities. In both cases, investors confront what has become recently known as a 'goldilocks' ('neither too cold nor too hot environment'). Bonds prefer autumn and to some extent winter (depending on the nature of debt obligations). Commodities generally do not do well in either winter or autumn and clearly prefer an upswing of a spring and in particular summer, while gold thrives in the periods of severe dislocation (hyperinflation, stagflation or deflation).

As can be seen below, as far as the US equities are concerned, by far the best real returns occurred in 'autumn' periods, with average real returns close to double-digit levels (real terms). Not surprisingly 'springs' also yields positive outcomes.

Fig 19 US – Financial assets performance by Kondratieff seasons (real price average annual returns) (%)

Spring			
Period	**Equities**	**Bonds**	**60%/40%**
1897-1907	2.4%	-0.3%	1.3%
1950-1966	9.1%	0.4%	5.6%
Summer			
Period			
1908-1920	-4.5%	-3.2%	-4.0%
1967-1981	-2.9%	-3.3%	-3.0%
Autumn			
Period			
1921-1929	15.9%	7.2%	12.4%
1982 - 2017?	7.1%	5.6%	6.5%
Winter			
Period			
1875-1896	3.1%	6.9%	4.6%
1930-1949	0.0%	1.2%	0.5%

Source: Shiller; Bloomberg; Measuring worth; CEIC; Macquarie Research, July 2017

What would disturb this tranquillity? Whenever one confronts an unsustainable economic system, there is always a natural desire to try to predict its demise. This is what happened to the entire army of investors which over more than twenty five years have been predicting the ultimate doom for Japan and Yen. A similar process has been running in China over the last decade or Eurozone between 2008 and 2015. However, most systems are far more resilient.

The world of perpetual autumn

We believe there is currently neither popular nor political will to face dislocation and disruption of 'clearance' and reconstitution of pricing signals as well as associated volatility in financial markets. In other words, no one wants 'winter'. In the past epochs it would have been simply taken for granted that the system needs to purge itself from excesses of the past cycles. As Andrew Mellon advised the US President in 1929, 'liquidate labour, liquidate stocks, liquidate farmers, liquidate real estate…it will purge the rottenness of the system' is an advice that since 1930s was not welcome. Although World War II did achieve a great deal of destruction (capital and human) and reset the system (thus giving us 'spring' of 1950s-60s), there has not been any willingness since then to confront a purging stage. Instead, financialization under the guide of the public sector gradually replaced cycles. Our modern world was created by financialization, and it cannot tolerate purges.

How long would it last?

Having said that, as growth and inflation weakens we believe eventually there will be an increasing probability of either policy errors (such as real and/or anticipated tightening by the Fed in 2013 and 2015 or a sharp de-leveraging attempted by China in 2014-15) or simply systemic over-valuation in certain pockets (such as high yield or technology). No one knows how long the current perpetual Kondratieff 'autumn' environment will continue (it is already at least three decades old). ***However, as long as there are no serious policy errors, and there are no major volatility surges, the current 'warm autumn' might just go on, slowly descending towards the 'black hole event frontier'.***

How should investors confront this 'twilight' zone between the old and the new?

We continue to advocate non-mean reversionary strategies

We have argued for the last five years that the best answer is to simply assume that neither the conventional private sector nor private sector signals will ever come back. Investors are unlikely to witness a resurrection of conventional business and capital markets. Hence, we see the conventional sector, style or country rotations and mean-reversion strategies as essentially harping back to the classic capitalist and private sector-driven world that no longer exists. We therefore have been advising investors to focus on non-mean reversionary strategies, such as 'Quality Sustainable Growth' and 'Thematics'. Our latest portfolios and performance are discussed in our the quarterly review (Rights, Wrongs & Returns - CBs – can slaves become masters? 18 July 2017). ***These portfolios should continue to perform well, so long as 'normality' does not return.***

Appendices

Fig 20 Index performance, (Local currency, unless stated otherwise), %

MSCI Indices	- 1W	- 1M	- 3M	- 1Y	- 3Y	- 5Y	YTD	Index
MSCI AC Asia ex JP (LC)	1.3	3.4	11.6	22.4	16.9	41.3	22.7	792
ASXJ Consumer Discretior	0.5	0.1	10.1	21.8	-7.7	14.8	22.1	512
ASXJ Consumer Staples	-0.4	-1.3	4.2	-0.0	9.5	27.7	9.0	513
ASXJ Energy	2.0	3.1	0.8	14.7	-11.3	-13.3	9.5	627
ASXJ Financials	1.0	3.9	11.2	22.5	19.8	41.5	19.9	353
ASXJ Health Care	1.6	2.6	5.6	-2.5	19.3	80.2	8.9	947
ASXJ Industrials	0.5	1.7	4.6	11.8	-4.7	7.4	15.4	169
ASXJ Information Technol	1.9	5.3	21.3	44.4	49.1	121.5	37.3	501
ASXJ Materials	1.6	7.1	8.7	22.0	12.5	16.0	15.1	371
ASXJ Utilities	-0.0	2.3	3.4	1.9	-0.8	28.6	10.9	233
ASXJ Telecom Svcs	0.8	0.4	2.5	-5.4	-0.1	6.5	7.5	139
MSCI AC ASIA EX JP U$	1.5	3.6	11.9	23.5	11.0	35.0	26.2	649
MSCI CHINA U$	2.5	5.8	14.7	32.5	22.1	43.0	31.0	77
MSCI HONG KONG U$	0.5	1.1	7.2	15.2	14.4	46.0	21.4	11,346
MSCI INDIA U$	0.3	3.3	7.7	17.6	14.4	50.8	25.5	561
MSCI INDONESIA U$	-0.1	-0.1	6.8	8.0	-1.0	1.6	14.0	855
MSCI KOREA U$	2.4	4.8	19.0	34.0	13.7	40.0	34.7	513
MSCI MALAYSIA (EM) U$	0.2	-1.4	3.1	-2.0	-31.4	-23.9	11.7	355
MSCI PHILIPPINES U$	-1.3	-2.1	2.1	-10.6	-1.0	30.7	12.4	551
MSCI SINGAPORE U$	2.8	4.0	8.7	11.7	-11.8	-3.2	21.2	3,843
MSCI TAIWAN U$	0.0	1.6	10.9	24.3	15.2	54.1	22.2	373
MSCI THAILAND U$	0.6	1.6	2.6	8.9	-3.1	8.8	10.6	401
MSCI China	2.6	5.9	15.1	33.2	22.9	43.8	31.7	77
MSCI Hong Kong	0.5	1.2	7.6	16.0	15.2	47.0	22.2	15,949
MSCI India	0.3	3.3	7.4	12.7	22.2	76.0	19.2	1,172
MSCI Indonesia	-0.2	0.2	6.9	9.8	13.5	43.2	12.8	6,906
MSCI Korea	1.4	3.8	17.5	32.2	24.3	38.0	25.5	729
MSCI Malaysia	0.1	-1.2	0.6	4.5	-7.5	3.6	6.9	612
MSCI Philippines	-0.6	-0.6	4.3	-3.4	15.8	58.8	15.1	1,349
MSCI Singapore	2.0	2.2	6.4	12.4	-3.1	5.0	14.7	1,706
MSCI Taiwan	0.3	1.8	11.1	18.2	17.0	56.5	15.4	397
MSCI Thailand	-0.2	0.7	0.6	4.9	1.5	15.7	4.0	542
MSCI USA	1.1	1.5	5.0	13.9	24.6	81.4	10.6	2,356
MSCI AC WORLD U$	1.4	2.4	6.8	15.7	11.2	53.5	13.2	478
MSCI EM U$	1.8	5.0	10.5	21.7	-0.4	13.1	22.9	1,059
MSCI WORLD U$ (Dev)	1.4	2.1	6.3	15.0	12.6	59.4	12.1	1,963
MSCI EM ASIA U$	1.5	3.9	12.8	25.5	12.0	36.6	27.2	533
MSCI WORLD EX JP ($)	1.3	2.3	6.2	14.9	12.5	60.2	12.2	1,982
MSCI EUROPE U$	1.4	3.1	9.7	18.9	-3.9	38.8	16.7	1,717
MSCI EMU U$	1.3	3.0	11.1	26.6	2.8	61.7	19.6	203

Note : Priced as of close of 20 July 2017
Source: MSCI, Thomson, Macquarie Research, July 2017

Fig 21 Index performance by MSCI country and sector (local currency) – Last three months, %

MSCI AC Asia ex JP	AC Asia ex JP	China	HK	India	Indo	Korea	Mal	Phils	Sing	TW	Thai	EMG	World (Dev)	Japan	AC World
MSCI Country Index	11.6	15.1	7.6	7.4	6.9	17.5	0.6	4.3	6.4	11.1	0.6	9.8	4.7	10.0	5.3
Cons. Disc	10.1	21.6	3.9	9.4	-2.4	4.7	0.0	7.3	-5.2	6.5	2.4	10.2	3.6	9.4	4.2
Staples	4.2	-1.6	10.2	12.7	6.1	2.4	-2.4	-6.4	-0.4	7.9	-1.2	2.8	1.9	9.5	1.9
Energy	0.8	-1.5	NA	4.0	3.0	11.0	-8.1	0.0	0.0	-0.9	-3.2	0.3	-3.3	2.5	-2.9
Financials	11.2	10.5	16.9	8.4	11.4	17.0	5.1	2.1	11.8	7.6	0.7	7.9	6.0	7.1	6.2
Banks	8.6	5.4	12.5	9.1	11.4	16.5	5.1	2.7	12.5	8.6	0.7	6.6	5.4	6.6	5.6
Real Estate	9.4	27.0	0.0	NA	-6.1	NA	4.4	14.5	6.8	-2.6	19.5	15.1	0.5	4.4	1.8
Health Care	5.6	5.7	NA	-1.7	6.7	27.8	5.1	NA	0.0	-5.0	-2.6	5.5	7.4	5.3	7.4
Industrials	4.6	1.9	2.6	7.8	1.5	9.3	3.5	2.7	0.6	4.7	13.3	5.8	4.7	9.9	4.7
IT	21.3	25.7	15.1	4.9	NA	26.2	0.0	0.0	0.0	14.9	-2.0	21.2	9.9	19.5	11.7
Materials	8.7	6.5	0.0	11.6	13.5	18.9	-9.1	0.0	NA	2.5	-4.3	4.8	4.3	14.9	4.4
Utilities	3.4	8.7	3.2	-2.0	-6.7	1.0	1.2	-3.9	NA	NA	-4.6	2.6	3.5	6.8	3.4
Telecom Services	2.5	-0.8	0.1	19.7	12.3	6.3	-8.1	-0.3	3.5	3.0	3.1	2.4	-1.7	9.3	-0.9

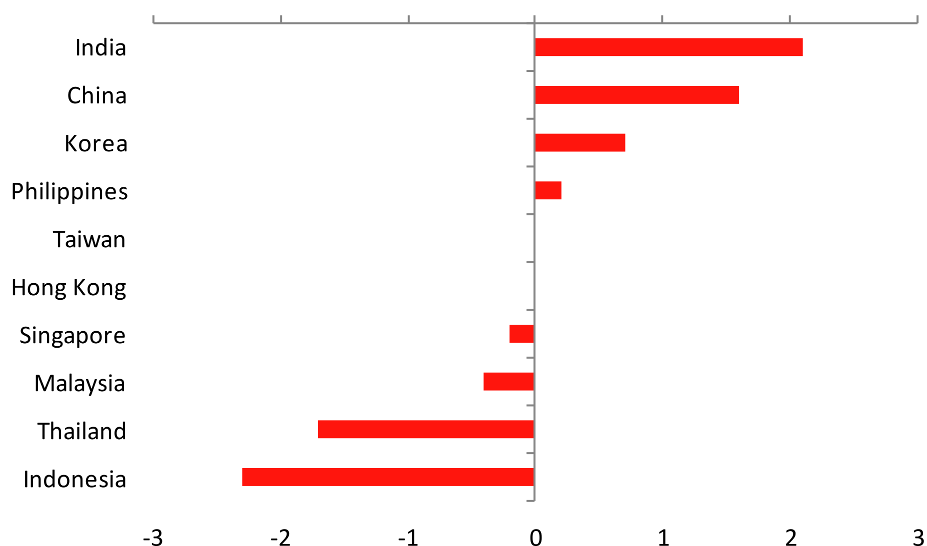
Note : Priced as of close of 20 July 2017
Source: MSCI, Thomson, Macquarie Research, July 2017

Fig 22 Valuations – Asia ex JP and key comps

MSCI Indices	12 Month forward estimates					LT Average (12M forward ests)				Avg since 2010		Current vs post-2010 avg	
	PER	P/B	EPS gr	ROE	DY	PER	P/B	ROE	DY	PER	P/B	PER	P/B
MSCI AC Asia ex JP	13.0	1.5	14.4	11.5%	2.5%	12.0	1.6	12.8%	2.9%	11.7	1.5	11%	3%
ASXJ Consumer Discretionary	14.7	1.7	18.1	11.6%	1.9%	11.3	1.8	15.3%	2.3%	11.4	1.7	28%	-2%
ASXJ Consumer Staples	21.5	3.0	10.5	13.8%	2.1%	16.5	2.7	15.2%	2.4%	19.2	2.8	12%	7%
ASXJ Energy	11.5	1.0	15.5	9.1%	3.4%	10.1	1.6	14.2%	3.2%	10.6	1.3	9%	-19%
ASXJ Financials	10.1	1.1	8.4	11.2%	3.2%	11.8	1.3	11.4%	3.3%	10.2	1.2	-1%	-3%
ASXJ Health Care	23.6	3.3	18.7	14.1%	1.0%	19.0	3.2	15.6%	1.1%	21.7	3.3	8%	2%
ASXJ Industrials	13.4	1.2	12.5	8.6%	2.3%	13.1	1.4	10.5%	2.5%	12.7	1.3	5%	-9%
ASXJ Information Technology	14.3	2.5	23.6	17.5%	1.8%	13.2	2.0	15.7%	2.2%	12.4	1.9	15%	29%
ASXJ Materials	12.3	1.2	12.1	9.7%	2.8%	10.5	1.3	12.6%	3.2%	11.9	1.3	3%	-5%
ASXJ Utilities	12.0	1.2	11.6	10.3%	3.4%	12.5	1.4	10.8%	3.3%	12.9	1.4	-7%	-10%
ASXJ Telecommunication Services	15.9	1.8	6.5	11.1%	3.8%	13.3	2.0	14.8%	4.0%	14.0	1.9	14%	-6%
MSCI China	12.8	1.6	15.1	12.4%	2.2%	11.5	1.7	14.7%	3.0%	10.2	1.5	26%	9%
MSCI Hong Kong	16.0	1.2	8.5	7.7%	3.0%	15.4	1.4	8.6%	3.3%	14.9	1.2	8%	-1%
MSCI India	18.1	2.7	15.5	15.0%	1.6%	14.6	2.6	16.5%	1.6%	15.4	2.4	17%	11%
MSCI Indonesia	16.0	2.6	15.2	16.3%	2.6%	11.6	2.8	21.2%	3.1%	14.0	2.9	14%	-10%
MSCI Korea	9.2	1.1	20.5	11.5%	1.8%	9.3	1.2	12.2%	1.7%	9.3	1.1	-1%	-2%
MSCI Malaysia	15.8	1.5	12.7	9.8%	3.1%	14.4	1.9	12.7%	3.5%	14.9	1.9	6%	-17%
MSCI Philippines	18.2	2.2	8.0	12.2%	1.6%	15.2	2.2	14.4%	2.5%	17.0	2.5	7%	-12%
MSCI Singapore	13.8	1.2	7.5	8.7%	3.7%	14.0	1.5	10.7%	3.7%	13.2	1.3	4%	-11%
MSCI Taiwan	14.0	1.8	9.5	12.9%	4.0%	13.9	1.7	13.1%	3.9%	13.2	1.7	6%	8%
MSCI Thailand	14.0	1.8	8.2	12.6%	3.1%	11.1	1.8	15.9%	3.8%	12.2	1.9	15%	-5%
MSCI EMG	12.2	1.5	14.9	12.3%	2.7%	10.8	1.6	14.2%	3.1%	10.9	1.4	12%	5%
MSCI World (Dev)	16.5	2.2	10.8	13.1%	2.6%	14.7	1.9	13.5%	2.7%	14.0	1.8	18%	20%
World(Dev) Consumer Discretionary	16.5	2.7	10.8	16.3%	2.0%	16.5	2.1	13.7%	2.0%	15.0	2.3	10%	18%
World(Dev) Consumer Staples	19.7	3.9	8.9	20.1%	2.8%	16.8	3.2	19.2%	2.8%	17.0	3.2	16%	22%
World(Dev) Energy	20.3	1.5	54.8	7.3%	4.0%	14.4	1.8	13.8%	2.9%	15.8	1.5	29%	-2%
World(Dev) Financials	12.9	1.2	9.1	9.3%	3.2%	11.9	1.2	10.6%	3.4%	11.6	1.0	11%	15%
World(Dev) Health Care	16.8	3.5	7.3	20.7%	2.0%	15.9	3.0	19.8%	2.3%	14.5	2.9	15%	20%
World(Dev) Industrials	17.2	2.8	13.7	16.2%	2.3%	15.3	2.1	14.6%	2.4%	14.5	2.1	19%	30%
World(Dev) Information Technology	18.4	3.9	12.2	21.0%	1.4%	19.0	2.9	18.4%	1.2%	14.6	2.8	26%	36%
World(Dev) Materials	15.9	1.9	10.2	12.2%	2.5%	14.1	1.8	13.5%	2.4%	13.7	1.7	17%	16%
World(Dev) Utilities	15.8	1.6	3.1	10.1%	4.0%	14.1	1.6	10.7%	4.2%	14.7	1.4	8%	16%
World(Dev) Telecommunication Servi	13.8	2.0	-0.8	14.1%	4.5%	19.5	1.8	12.8%	4.5%	13.6	1.8	1%	6%
MSCI AC World (All)	15.9	2.1	11.4	13.0%	2.6%	14.3	1.9	13.6%	2.8%	13.5	1.8	18%	18%
MSCI Japan	14.4	1.3	10.6	8.8%	2.2%	16.6	1.3	8.5%	1.7%	13.7	1.1	5%	14%
MSCI USA	17.9	2.9	11.5	16.0%	2.1%	15.3	2.3	15.5%	2.1%	14.7	2.3	21%	27%
MSCI Australia	15.4	1.8	4.5	11.9%	4.6%	14.1	2.0	14.1%	4.7%	13.7	1.8	12%	4%

Note : Priced as of close of 20 July 2017
Source: MSCI, Thomson, Macquarie Research, July 2017

Fig 23 MQ – Country Allocation Tilts (%)



Source: Macquarie Research, July 2017

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Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense
Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa*
ROA = adjusted ebit / average total assets
ROA Banks/Insurance = adjusted net profit /average total assets
ROE = adjusted net profit / average shareholders funds
Gross cashflow = adjusted net profit + depreciation
*equivalent fully paid ordinary weighted average number of shares

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