



## GLOBAL



## Inside

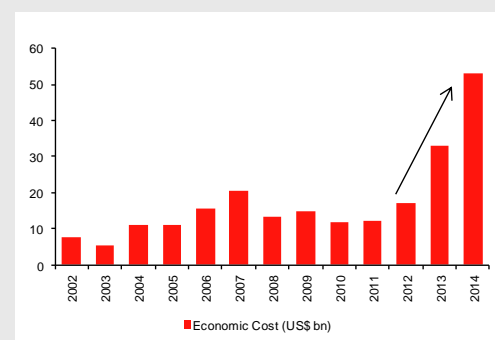
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## Global income inequality – 1820-1910

	1820	1850	1870	1890	1910
Gini	0.50	0.53	0.56	0.59	0.61
Income Share					
-Top 5%	31.8%	32.2%	33.4%	34.9%	36.7%
-Top 10%	42.8%	45.2%	47.6%	49.8%	50.9%
-Bottom 40%	13.5%	12.1%	11.0%	9.9%	8.8%

Source: Bourguignon and Morrisson, 'Inequality among World Citizens', *The American Economic Review*, Macquarie Research, June 2016

## Economic cost - terrorist attacks (US\$ bn)



Source: Global Terrorism Index; Macquarie Research, July 2016

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# What caught my eye? v.61

## 'Lumpenproletariat' & deglobalization

In this latest issue, we discuss the impact of labour force structural changes on investment strategies. **In our view, this is the key investment driver** and whilst history never repeats itself, it does rhyme and tends to be an excellent guide.

Louis-Napoleon Bonaparte had the unique distinction of being the last French emperor and the first democratically elected French president. His sweep to power by a popular vote in 1848 was achieved by relying on what Karl Marx described as '**lumpenproletariat**' vote. What is 'lumpenproletariat'? In Marxist theory these are sections of society that slipped below conventional occupations, and hence no longer belong to either proletariat or capital and financial classes. As described in greater detail in the note, according to Marx it includes various groups, ranging from "discharged jailbirds and vagabonds to pickpockets, tricksters, pimps, porters, tinkers....disintegrated mass, thrown hither and thither." It was the same group that concurrently fuelled the rise of the powerful 'anarchist' movement, dedicated to 'blowing up the system', heightening social and geopolitical tensions led mostly by well-to-do and educated elite.

**Does this sound familiar?** It should, as essentially in modern terminology, Marx was describing disintegration of a traditional order under the pressures of the First and Second Industrial Revolutions; societal dissatisfaction and the rise in income & wealth inequalities, culminating in the 'gilded age' of the late 19<sup>th</sup> century. Given that modern economics is purely a flow science and does not recognize structural shifts or social classes, the term 'lumpenproletariat' has fallen into disuse. It is a pity, as we believe it describes much better the dislocating changes occurring in the labour force and its social and political implications, than modern preferred alternatives ('gig economy', 'fissured employment', 'angry white men') and its impact on political process in countries as diverse as the US, UK, France, Austria or Turkey. As electorate shifts either to the right or left, the underlying drivers are identical (structural changes under immense pressures from the Third Industrial revolution and what we describe as declining returns on humans that are permanently altering nature and value of human inputs). We are even acquiring a growing number of our own 'anarchists'.

In this note, we used BLS stats (US) to estimate the extent to which *the structure of the labour force is shifting towards the modern equivalent of 'lumpenproletariat'* or more contingent and least-paid occupations. Our estimates indicate that its modern equivalent in the US could account for as much as 40%-45% of the labour force; around half of incremental growth and low productivity occupations constitute ~70% of employment. The same trend is evident in most other developed economies. Indeed these estimates understate the real impact due to lower benefits attached to these occupations; inability to secure jobs in line with qualifications or erosion of job and income stability. Investors might argue that this is just a reflection of an accelerated shift towards services and that new higher value jobs will eventually emerge. We agree but as societies in the 19<sup>th</sup> century discovered, eventually could be a very long time.

**What are the investment implications?** As discussed in our prior notes, we believe investors are entering a world where the pendulum is swinging rapidly in favour of the state, as a multiplier of demand, provider of capital and setter of prices. We also believe that we are entering the age of de-globalization, as societies demand (and get) greater protection from competition & immigration as well as greater support for local industries and employment. This implies that '**Follow the Government**' and '**Buy least efficient and most protected**' local stocks could emerge as the key strategy, replacing popular globalization themes.

## Past deglobalization drivers – world of 1880s - 1913

***“Alongside decayed roués with dubious means of subsistence and of dubious origin, alongside ruined and adventurous offshoots of bourgeoisie, were vagabonds, discharged soldiers, discharged jailbirds, escaped galley slaves, swindlers, tricksters, gamblers, pimps, porters, tinkers, beggars-in short, the whole indefinite, disintegrated mass, thrown hither and thither (here, there and everywhere)” Karl Marx definition of Lumpenproletariat in The Eighteenth Brumaire of Louis Napoleon (1852)***

***The period between 1820 and 1913 experienced a continuous rise in income inequality...***

In the Marxist terminology, 'Lumpenproletariat' is essentially the lower end of working class, displaced former bourgeoisie and 'rentier class of financial aristocracy' with no role in what Marxists would describe as useful and productive activities. Although Marx was primarily interested in how different classes interact, what he essentially was describing in the above quote was swelling masses of displaced labour force under growing pressure of the First (1750s-1850s) and later Second (1880-1930s) Industrial Revolutions. The waves of innovation displaced sections of former landed aristocracy as well as peasantry, swelling urban centres with mass of people without obvious function to perform and suddenly without any support or relationships back to the country-side, families and traditions. A broad equivalent of England or France in mid 19<sup>th</sup> century could be found in India or Africa today.

As discussed in our prior notes ([here](#)), as the pace of industrialization increased, these societies experienced a significant rise in income and wealth inequalities, with the British Gini (measure of income inequality) rising from 0.3-0.4 in 1820s (broadly in line with Japan or Germany today) to 0.63 by 1870s (broadly in line with the more unequal parts of Africa today). The evidence for France, suggests that inequality rates that have declined following the Revolution of 1788, were rising again (particularly post 1830s) and it is suggested that by 1870s, French Gini co-efficient was broadly similar to what it was prior to 1788 (i.e. ~0.6). Similar estimates for the US indicate that Gini coefficient rose from ~0.43 in 1774 to over 0.53 by 1860s and continued to rise into late 1890s-early 1900s.

Whilst there is some variation in estimates, most academics tend to agree that from 1820s until World War I (1914) there was a continuous rise in income inequality levels on a global basis. As today, inequality was a hotly debated topic in mid-to-late 19<sup>th</sup> century, and causes that were identified were almost identical to current academic literature, with displacement of conventional occupations by new processes and machines as well as what was perceived to be the negative impact of what was the first wave of globalization of product, capital and labour markets, being the key culprits.

**Fig 1 Estimates of Global Income Inequality**

	1820	1850	1870	1890	1910
Gini	0.50	0.53	0.56	0.59	0.61
Income Share					
-Top 5%	31.8%	32.2%	33.4%	34.9%	36.7%
-Top 10%	42.8%	45.2%	47.6%	49.8%	50.9%
-Bottom 40%	13.5%	12.1%	11.0%	9.9%	8.8%

Source: Bourguignon and Morrisson, "Inequality among World Citizens", The American Economic Review, vol. 92 No 4 (Sep 2002), pp 727-744; Macquarie Research, June 2016

***...resulting in an extended era of social and political dislocation and...***

It is hardly surprising therefore that this was an era of social uprisings and revolutions (i.e. 1848 revolutions; Paris Commune of 1870; wars of German and Italian unification etc). It was also an era of increasingly populist policies. Indeed, it was Louis Napoleon Bonaparte referred to above, who was one of the first to mobilize wide electorate support by highlighting and playing on insecurities of displaced people and channelling this anger into a successful democratic victory in 1848 as France's first democratically elected President and then converting it back into Royalty by becoming France's last Emperor in 1852. It was also the same proliferation of populist movements, expressing frustrations of displaced, that forced Bismarck (Germany's first Chancellor) to introduce comprehensive social security and pension systems in 1870s-90s and it was the beginning of Chartists movement in Britain (1840s), which in turn led to the creation and proliferation of trade unions into 1860s-90s.

The impact of growing income disparities and alienation of the majority of population also spawned a strong '**anarchist movement**' which was dedicated to complete destruction of the system, although it has never been totally clear what was supposed to replace it. It was led by a plethora of intellectuals and aristocrats who were attempting to define the nature of 'fairer and more sustainable societies' (predating collectivism, mutual assistance and environmentalists). It included Prince Kropotkin (relative of Russian Tsar); aristocrats like Bakunin and intellectuals like Pierre-Joseph Proudhon, Louise Michel, Josiah Warren and Lucy Parson.

**...birth of first  
terrorist groups and  
populism**

It also spawned much more violent anarchist strands that quite often combined and intertwined with nascent nationalism and led to the assassination of Tsar Alexander II (1881); attack on the French Parliament (1893); murder of French President Carnot (1894); assassination of Spanish Prime Minister (1896); and murder of the US President McKinley (1901). These were the first modern examples of what we would describe today as terrorists and although it targeted mostly figures of authority, it gradually drifted towards mass attacks (such as indiscriminate bombing of The Cafe Terminus in Paris in 1894). As today, there was a vibrant and animated discussion as to why children of relatively well-to-do (quite often aristocratic) families have become intertwined in violent anarchist movements.

The answer in 19<sup>th</sup> century was the same as in early 21<sup>st</sup> century. Dislocation caused by rising income and wealth inequalities and disorienting impact of changing functions of human capital driven by the technological revolution and perceived negative impact of globalization of product, capital and labour markets.

**Indeed, 19<sup>th</sup> century was the first true era of globalization**

**However it was also  
an era of first true  
globalization**

Following British repeal of Corn Laws in 1846 (between 1815 and 1846, Britain was imposing high tariff on grain imports, designed to protect British land owning elite against flood of cheap imports from the US and Eastern Europe) followed by repeal of Navigational acts in 1849 (which in the past discriminated against non-British shipping), opened doors to completely unconstrained trade. Given the dominance of British economy and trade, it gradually led to elimination of most tariffs and other trade restrictions (culminating in British-French agreement of 1860 and proliferation of "most favoured nation clause", which implied that any benefit of one agreement was automatically applied to other agreements). It was also complemented by unequal agreements signed with Eastern countries (like China and Japan) imposing tariff free access (government tariffs were limited to no more than 5%) and opening of foreign concessions (like Hong Kong and international settlements in Shanghai).

Until WTO rules in early 21<sup>st</sup> century, 1860s-70s was the freest period ever for trade, indeed in many ways it was even freer but not necessarily fairer than current arrangements.

**However it did not  
last as pressure  
forced steep rise in  
trade tariffs after  
1880s and...**

**However it did not last.** By 1870s-80s, countries started to protect their industries and workers and citizens against what was perceived to be unfair foreign competition. Following the end of Civil War, the US was one of the first countries to start raising tariffs to encourage development and import substitution. Between 1866 and 1883, import tariffs on manufactured goods were raised to as high as 60% (with the low base closer to 25%). Given growing importance of the US economy, this had an increasingly critical global impact. In the late 1880s and the 1890s the pace of tariff increases accelerated significantly (following the long depression of the 1870s). For example in Austria-Hungary and France, tariffs went up from zero to ~20%; in Germany from zero to 13%, in Spain to ~35%-40% and Russian manufacturing tariffs were by 1913 as high as 70%-80%. By the 1890s, Japan, liberated from the constraints of its previous unequal agreements with Britain and the US, started to raise its tariffs. Indeed by 1913, Britain was the only major economy still maintaining zero tariffs.

On average, tariffs on manufacturing goods increased from close to zero level in 1860 to ~20%-25% by 1913, with some countries imposing a much higher level and because duties at that time were based on specific quantities (not *ad valorem*) and because this was a period of generally declining prices, the impact of a 20%-25% nominal tariff was actually much heavier than it would be today.

**Fig 2 Estimated Tariffs on Manufacturing Goods (%)**

	1860	1875	1913
Britain	0%	0%	0%
Neth	0%	5%	5%
Germany	0%	5%	13%
Japan	5%	5%	20%
Italy	0%	10%	20%
France	0%	12%	20%
Austria	0%	15%	20%
Sweden	0%	5%	25%
Spain	5%	15%	35%
US	5%	40%	45%
Russia	5%	15%	75%

Source: Paul Bairoch and Richard Kozul-Wright, "Globalization Myth", UNCTAD, No113 (March 1996); Macquarie Research, June 2016

Had such an increase in tariffs impeded growth in merchandising trade?

The answer is that it has slowed down but not reversed trade growth, as rapidly declining cost of transportation (from sails to steam and from horses to railways), continuously reduced cost of transportation and delivery. At the same time, this was the era of greatest revolution in products (i.e. beginning of chemical and pharmaceutical industries; household products and conveniences; new steel and aluminium industries, replacement of horse buggies with cars etc). In other words, declining cost of transportation and new innovations and products offset tariffs, and trade continued to expand (albeit slower after 1890s than in 1860s-80s).

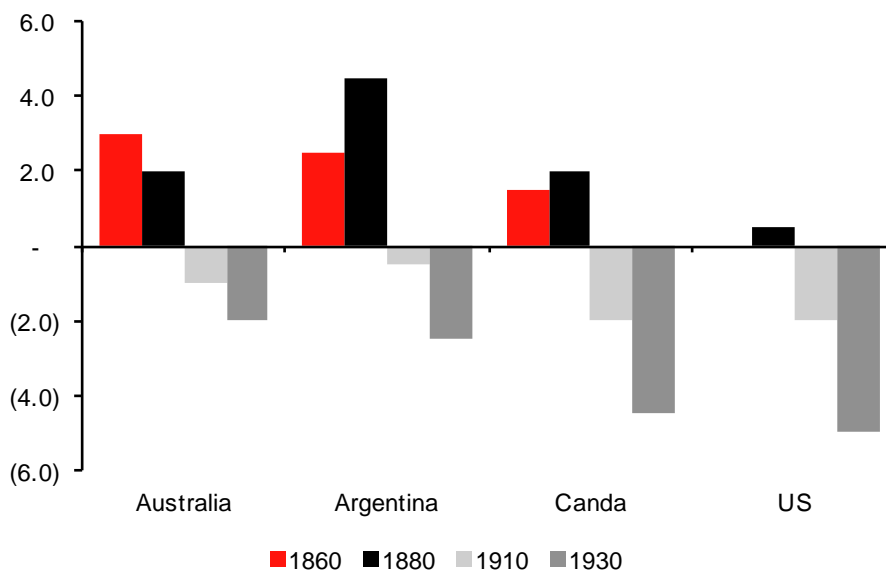
***Another key area of concern in late 19<sup>th</sup> century was the completely unrestricted movement of labour***

***...increasing closure of borders and limitations on movement of people***

Between 1820 and 1914, around 60m Europeans moved to other destinations, essentially relieving Europe of an adjustment process (i.e. too much labour and not enough land) whilst supporting growth of new settlements (principally British former colonies, such as the US, Canada, Australia, New Zealand and South Africa but also parts of Latin America, such as Argentina and Uruguay), where there was scarcity of labour and plenty of land. It is a classic example of factor price convergence. Wages in the New World dropped, enabling countries like US, Canada or Australia to expand land clearing and maintain competitiveness in primary products whilst wages were rising in the Old World (as labour become scarcer, with some countries like Ireland or Norway, losing as much as 40% of their labour force). Hence, it shifted Europe towards higher value-added occupations and businesses and by 1913, higher value-added manufacturing accounted for as much as 60%-70% of their exports, whilst in the US its share was closer to 35% and close to zero in Australia.

However, as time progressed and income and wealth inequalities widened, New World started to impose increasing impediments on flow of labour. Although unlike tariffs there was no single identifiable switch and the process took decades, the labour markets were essentially closed by the 1920s but the process started as early as the 1880s. Whilst there were many explanations for reversal of public attitude to migrants (ranging from usual suspects, like xenophobia and racism to purely economic factors), it seems more likely that restrictions were imposed at the behest of locals who were concerned that "jobs would be stolen by foreigners" and that there would be greater pressure on wages of the less skilled segments.

Labour movement restrictions took various forms, including: (a) local language tests; (b) health checks; (c) restrictions on certain races or professions; (d) minimum education requirements; and (e) annual quotas. For example, the index of openness to migrants (out of ten), declined in Australia from +3 in mid 1860s to -1 by 1900 and -2 in 1930. The Index for the US dropped from zero in 1860s to -5 in 1930 whilst Canada's index dropped from +2 in 1860s to -4.5 in 1930. Argentina was even more extreme, declining from +4.5 in 1860s to -2.5 in 1920s. The gradual closure of the immigration 'safety valve' increased the degree of local (European) dislocation in the lead-up to World War I and even more so between the wars.

**Fig 3 Policy on Immigration – Index (zero neutral; scale up to 10)**

Source: Kevin O'Rourke and Jeffrey Williamson, *Globalization & History*, MIT Press, 1999; Macquarie Research, June 2016

Late 19<sup>th</sup> and early 20<sup>th</sup> century, was also the first ever period of **capital liberalization and significant integration of global capital markets** (both portfolio and FDI). By the 1890s almost the entire global economy resided on a gold standard and continued to do so for twenty years, providing greater than average stability and transparency in capital transactions

**Financial and capital markets flourished and were blamed for excess**

As in the case of tariffs and trade, the liberalization was led by Britain, as the global anchor currency (backed by gold, despite its historic reference to pound sterling) and high domestic savings that were re-cycled on a global basis. By 1913, the flow of FDI reached as much as 5%-6% of global GNP (a level not seen again until the 1980s) and Britain alone was exporting capital to the tune of ~9% of its GNP, a level that has not been repeated by a major power again ever. In 1913, around 43% of total global stock of FDI was controlled by the British but there was also increasing flow from France, Germany, Belgium and even the US. As in the modern world, FDIs focused on more developed countries and the better prospects in emerging markets, with key destinations being British former colonies (such as Canada and Australia), parts of Latin America (principally Argentina), Russia and of course the US.

As in today's world, by the early 1900s, there were increasing rumblings of the pernicious effect of finance capital and how it should be controlled and the extent to which countries were mortgaging their future to 'rootless finance capital'. Marxists and anarchists generally viewed finance capital as having the worst manifestations of capitalism (i.e. not productive, rentier segments) and the impact of regular financial crises and stock market melt downs and their impact on the real economy was hotly debated.

**The world of 19<sup>th</sup> and early 20<sup>th</sup> centuries was similar to today's environment**

**The world of late 19<sup>th</sup> and early 20<sup>th</sup> centuries was therefore in many ways very similar to the global economy and politics in the late 20<sup>th</sup> and early 21<sup>st</sup> centuries.** By 1913, exports rose to as high as 13% of global GDP (a level not repeated until the late 1960s); it was the world of rapidly changing technologies (from electricity to telegraph and telephone; to indoor plumbing and refrigeration; air conditioning and cars; first flights and rockets; lengthening life span and the first commercial medicines and chemicals), far more advanced than anything experienced in prior periods. It was the world of rapidly developing finance. However, it was also a world of rising income and wealth inequalities; disintegration of traditional occupations and dislocation of hundreds of millions; closure of borders, rising trade barriers to protect local population and citizens; and rising violence related to nascent nationalism (prior to 19<sup>th</sup> century, in most places there was no such concept as nationality) and anarchism, fuelled by the above described dislocations.

**Does it sound familiar? It should.**

## Current deglobalization drivers – world of 1990s-2020s

***“We are going to get Apple to build their computers and things in this country instead of in other countries”, Donald Trump, Presumptive Republican Presidential Candidate, 2016***

***“We need President who understands the urgent economic challenges our families are facing...our families are working harder and harder and still fall behind”, Hillary Clinton, Presumptive Democratic Presidential Candidate, 2008***

***“Ordinary working class family life is much harder than many people in Westminster realize”, Theresa May, British Prime Minister, 2016***

***“It does not matter to me whether you are Amazon, Google or Starbucks, you have a duty to put something back, you have a debt to fellow citizens”, Theresa May, British Prime Minister, 2016***

***Today,  
technological  
evolution and the  
impact of over  
leveraging and  
overcapacity...***

The list of quotes above could continue ad infinitum. However, what links these quotes is the desire to protect and defend an increasingly dislocated citizenry, impacted by a mix of Third Industrial Revolution and globalization.

The decades since 1980s witnessed massive changes, including:

1. ***Technological revolution.*** Although Professor Gordon<sup>1</sup> might argue that Second Industrial Revolution inventions of indoor plumbing, flush toilets, refrigeration, air conditioning as well as moving from a horse buggy to planes and automobiles, changed far more profoundly both human life and productivity than internet or robotics, we continue to argue that Third Industrial Revolution (started in late 1970s and likely to go on until 2030s) is far more disruptive than the first two, as it aims to completely replace humans rather than complement them. It also requires different level of skills and aptitude than the previous two waves (and we are not talking of simply sending more people into four-year colleges). It is therefore far more fundamentally altering relationships between humans and machines and humans and society. This is what we call the age of ***‘declining returns on humans’***.
2. In addition to the above described technological impact, income and wealth distribution is further effected by ***over leveraging and over capacity*** generated over previous three decades of borrowing (and hence bringing future consumption to the present) and thus creating strong deflationary pressures whilst also reducing private sector visibility (refer discussion [here](#) and [here](#)). In our view, it is interaction between these two powerful forces (i.e. technology and the unintended consequences of monetary policies, designed to overcome and reduce impact of stagnating productivity) that is compressing productivity gains; keeps wages and incomes stagnant whilst requiring ever stronger doses of monetary activism.
3. As in the case of the first two industrial revolutions, income and wealth inequalities tend to increase significantly as portions of the economy (and some countries) become hyper competitive but gradually destroy productivity of the rest of the economy (as Clinton said, families might be working harder but that does not mean that they are more productive, as Wal-Mart employees for example are less productive because of Amazon). Thus until newer parts of the economy become larger and/or there is a greater transfer of labour to higher productivity occupations, the ***average aggregate productivity tends to fall and inequalities tend to rise.***

***...creates a similar  
environment of  
stagnating income &  
rising inequality***

Political response to widening income/wealth inequality, stagnating incomes and increasing ‘liquification of the labour markets’ (where most designations or professions make very little difference or meaning) is to offer protection through tilting foreign trade; limiting immigration and trying to fence off finance industry, whilst maintaining flow of lending to the key segments of the economy.

As discussed above it is not a dissimilar response to what politicians did in late 19<sup>th</sup>/early 20<sup>th</sup> centuries.

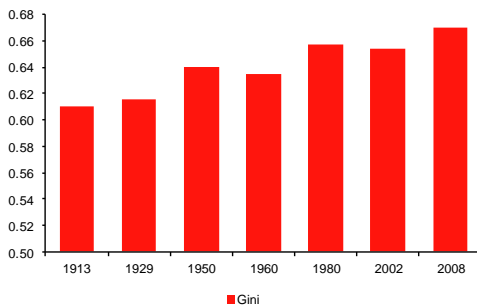
<sup>1</sup> Robert Gordon, “The Rise and Fall of American Growth”, 2015

**Income & wealth inequality is rising on both global and local basis...**

**Do we witness rising income inequalities?** If we look at Global Gini, (i.e. both intra and inter country inequalities), there is no question that following a plateau in 1950s-80s, the overall level of inequality has increased over the last 25-30 years.

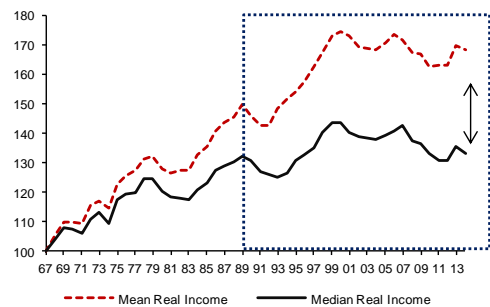
On individual country basis, the differences are more pronounced but generally follow global trend of rising inequality. This applies whether we examine, Gini coefficients or other measures such as proportion of income attributable to top 1% or top 10% of population. It is also evident when we examine share of wealth rather than income and it applies to traditionally less egalitarian Anglo Saxon economies and to far more egalitarian European or Japanese economies. It also increasingly applies to emerging markets, where real income growth rates are starting to de-accelerate

**Fig 4 Global Gini (Intra and Inter-country) – upward track since 1970s**



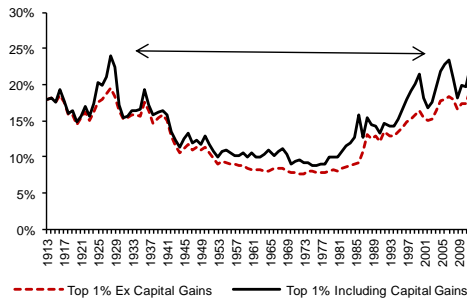
Source: Milanovic; Macquarie Research, July 2016

**Fig 5 US – Median vs. Mean real HH Income (1967=100) – growing gap between median & mean income...**



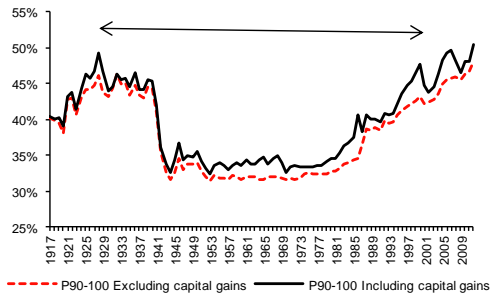
Source: Bloomberg; Macquarie Research, July 2016

**Fig 6 US – Top 1% income share (%) - ...strong increase in share of income of top 1% but...**



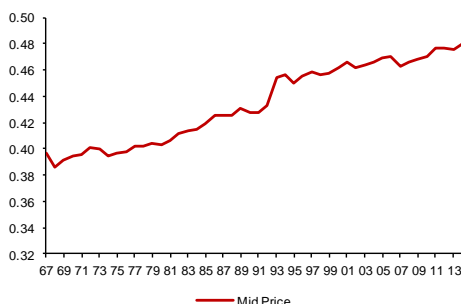
Source: Saez; Macquarie Research, July 2016

**Fig 7 US – Top 10% income share (%) - ...also top 10% which is...**



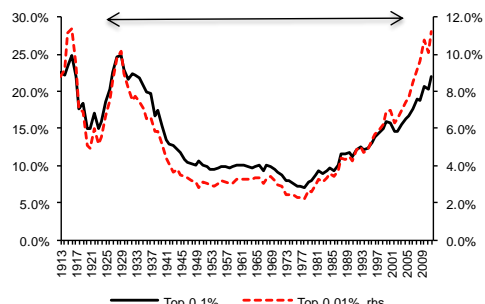
Source: Saez; Macquarie Research, July 2016

**Fig 8 US – Gini coefficient – reflected in rising Gini, whether including or excluding transfers**



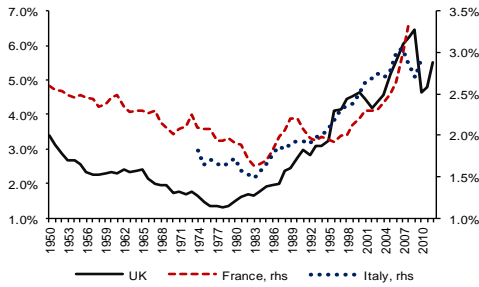
Source: Bloomberg; Macquarie Research, July 2016

**Fig 9 US – wealth distribution – Top 0.1% & 0.01% (%) – growing concentration of wealth**



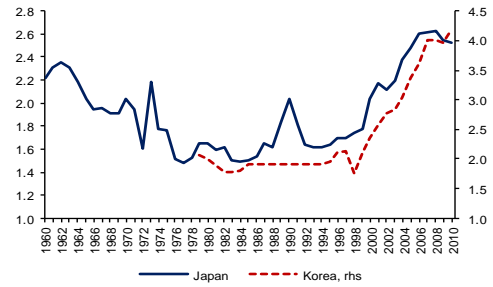
Source: Saez Zucman; Macquarie Research, July 2016

**Fig 10 UK, France & Italy – income share top 1% - rising inequality in UK, France & Italy but...**



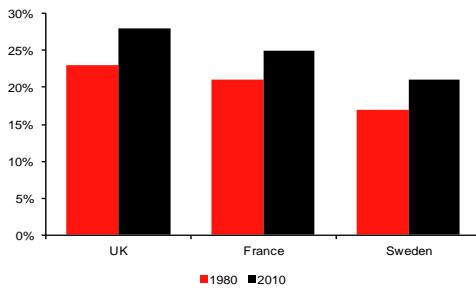
Source: Saez; Macquarie Research, July 2016

**Fig 11 Japan & Korea – income share – top 1% - ...also in Japan & Korea**



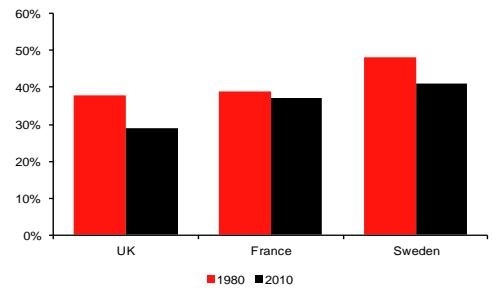
Source: Saez; Macquarie Research, July 2016

**Fig 12 UK, France & Sweden – top 1% wealth (%) – growing wealth concentration on top...**



Source: Saez; Macquarie Research, July 2016

**Fig 13 UK, France & Sweden – bottom 90% wealth (%) – declining on the bottom**



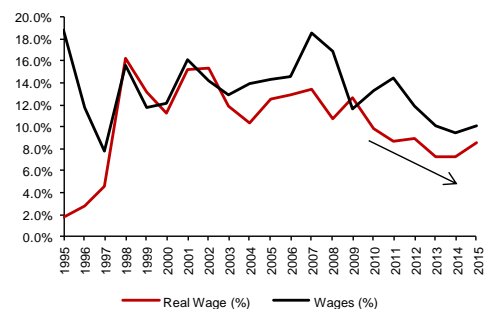
Source: Saez; Macquarie Research, July 2016

**Fig 14 Households with flat to declining income (%) – developed markets – McKinsey estimates that ~65%-70% of HH in DM have not seen a rise in income over the 2005-14 period**

	2005-2014	Italy	US	UK	Neth	France
Wages & Capital	65-70%	97%	81%	70%	70%	63%
Disposable Income (after Transfer Payments)	20-25%					
People (m)						
-Wages & Capital	540-580					
-Disposable Income	170-210					

Source: McKinsey; Macquarie Research, July 2016

**Fig 15 China – nominal & real wages – standard 10%+ rise is no longer the rule**



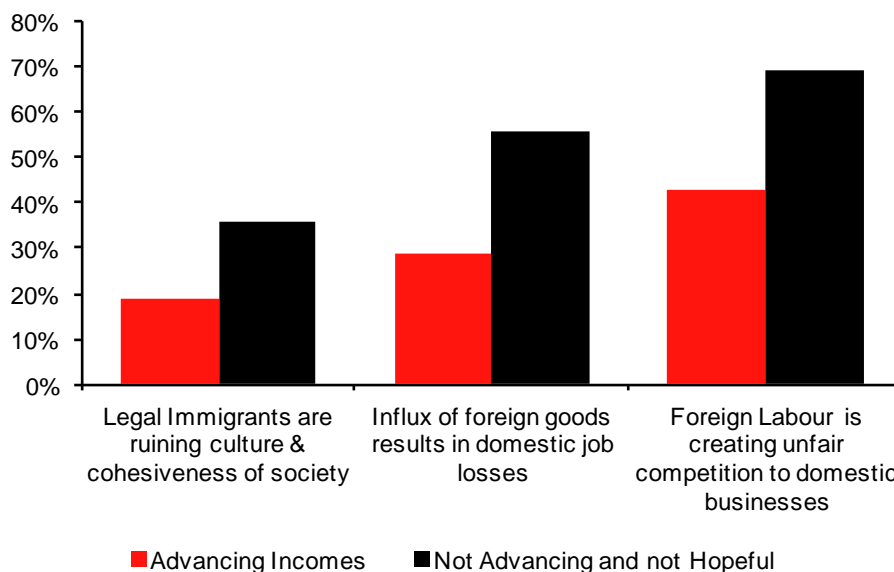
Source: CEIC; Macquarie Research, July 2016

Whilst one can debate specifics, it seems that no matter how we re-arrange the deck, investors are still playing and reshuffling the same cards (i.e. pressure on income levels and a rising degree of concentration at the very top and decreasing share at the very bottom).

**...causing a similar backlash against trade and immigration**

As the latest McKinsey review of income inequalities highlighted, the majority of households that responded as not seeing any improvement in their income levels also viewed **immigration as well as trade with a greatest deal of suspicion**. Even in the sample of people who have reported rising income, ~43% replied that foreign labour is creating unfair competition to domestic businesses. In terms of households where incomes are flat or falling, that ratio is closer to 69%. Similarly, almost 30% of households that experience rising incomes believe that the influx of foreign goods results in domestic job losses. The ratio is closer to 56% for those households that report flat-to-declining income levels.



**Fig 16 Attitude towards trade & immigration (% responders)**

Source: McKinsey Global Institute, 2016; Macquarie Research, June 2016

#### ***Do we see this increasingly strident views on trade reflected in trade restrictions?***

***As in late 19<sup>th</sup> century, constraints on trade are introduced slowly and cautiously but...***

Whereas in 19<sup>th</sup> or 20<sup>th</sup> century, it was relatively easy to quantify the degree of trade constraints as it was largely based on tariffs, which were known, published and observed. Whilst there were always some non-tariffs barriers, by and large the greatest part of trade restrictions was focused on tariffs. However, currently most tariffs are low (usually ~1% for DMs and ~5%-15% for EMs) but there are other measures that countries deploy to tilt trade in their favour.

WTO attempts to track individual member actions that might or might not involve tariffs. In early 2016, it reported that in the period under review (end of October 2015 to March 2016), G20 economies applied 145 new trade-restrictive measures, or an average of around 21 measures per month. WTO estimates that this was the largest monthly number since it started collecting statistics in 2009. According to WTO, G20 countries since 2009 introduced 1,583 trade restrictive actions or averaging around 14 per month and only around ¼ of them were removed over time. Whilst these measures only cover around 5% of global exports, the ratio is increasing and tends to be mostly focused on dumping allegations across some of the key over supplied industries, such as metals and chemicals. However, it does concern WTO, "these trade-restrictive measures, combined with notable rise in anti-trade rhetoric, could have further chilling impact on trade flows". We agree and would add that the WTO report coincides with recent IMF and McKinsey studies that have already ***started to question the benefits of globalization***, something that would have been unthinkable even 12 months ago.

***...we expect the process to continue for years to come***

It should be remembered that in the 1870s-90s, tariffs did not just increase in a straight line. There were considerable periods of "lull" and limited increase. It was only after 1880s that tariff increases significantly accelerated. In essence, it requires a significant shock (such as global dislocation) to strongly move protective barriers. In the 19<sup>th</sup> century, the 'stimulus' was provided by the Great Depression (it was known as such until 1930s) of 1873-79 (lasting in some countries into 1880s). We have not yet experienced anything like the same dislocation.

#### ***The same largely applies to labour movement.***

As in the late 19<sup>th</sup> century, the changes are in early stages gradual and subtle (such as inability of students to remain in the country after graduation; changes in progression path from residency to permanent status etc). Most current surveys do not yet pick up considerable change in immigration policies, but there is no question that it is occurring and will eventually filter through into surveys and policy and integration reviews (such as MIPEX).

**The same applies to restrictions on immigration**

**As in the late 19<sup>th</sup> century, displacement and terrorism are rising**

As discussed in our recent note ([What caught my eye? v.44 - Barbarians at the gate](#), 5 August 2015), we estimate that there are about 1bn people in Africa, the Middle East, South Asia and ASEAN, aged between zero and 15, who as they grow up will find it very challenging to find jobs (principally due to 'declining returns on humans' thesis). Hence, we maintain that migratory movements are only likely to increase, not dissimilar to massive movements in 3<sup>rd</sup>-5<sup>th</sup> centuries (Franks, Saxons etc) or 12<sup>th</sup>-14<sup>th</sup> centuries (Mongols and Turks). This will place further pressure on labour markets (particularly in Europe).

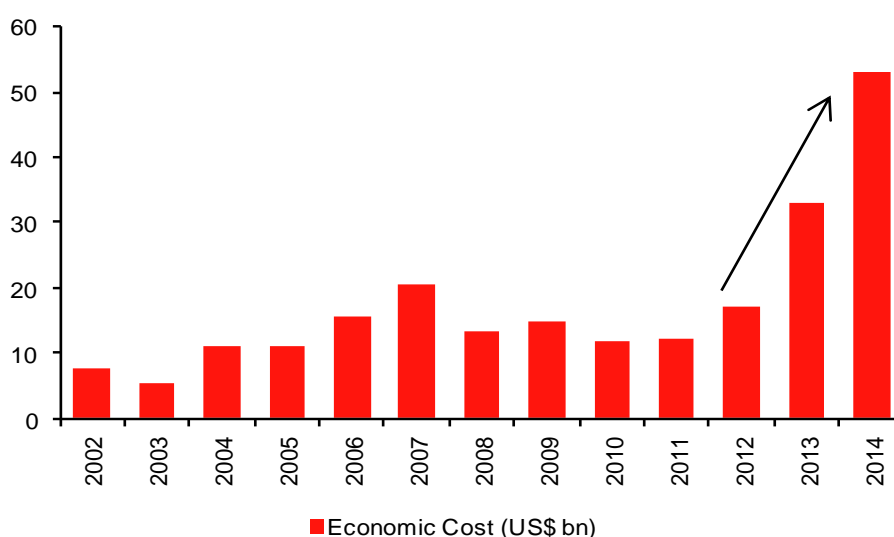
**This leads us to terrorism and human displacement.**

We are already running the historically highest global levels of displaced persons (both within and outside national borders). Whilst considerable attention is focused on cultural, religious or other causes, we believe that at the end of the day economics is at the base of most human endeavours.

The combination of slowing global growth rates and trade (in turn due to shrinkage of supply and value chains, caused by the above-mentioned technological changes as well as alterations in how products are manufactured and traded) as well as the inability of most EM economies to build sufficiently sturdy institutional structures (to ensure consistency and enforceability of property and personal rights as well as the ability to deliver impersonal and impartial public services), precludes the absolute bulk of the EMs from maximizing productivity gains. This in turn contracts employment opportunities whilst also leaving global economy dependent on just few major developed and EM economies and causes significant dislocation, particularly in countries that have a surplus of young people, as it effectively **turns demographic dividends into curses.**

As in 19<sup>th</sup> century, we are therefore dealing with a rising tide of terrorism (both domestic and international). The latest figures to the end of 2014 indicate that there were 32,685 deaths from terrorism, up 80% on 18,111 recorded in 2013, with significant majority in Iraq, Syria but also in Nigeria, Afghanistan, Pakistan and increasingly in a number of developed countries. According to the global terrorism index, in 2014, attacks occurred in 93 countries (vs 88 countries in 2013). Also the number of attacks that remained quite flat at around 1,500-2,000 pa in 2000-06, jumped significantly and in 2014 there were almost 14,000 attacks. Whilst clearly complicated, the Global Terrorism Index estimates that the economic cost of terrorism was US\$53 bn in 2015 (up from US\$33 billion in 2013) and has exceeded the cost of 9/11.

**Fig 17 Economic impact of terrorism (US\$ bn) ...new 'anarchists'**



Source: Global Terrorism Index; Macquarie Research, June 2016

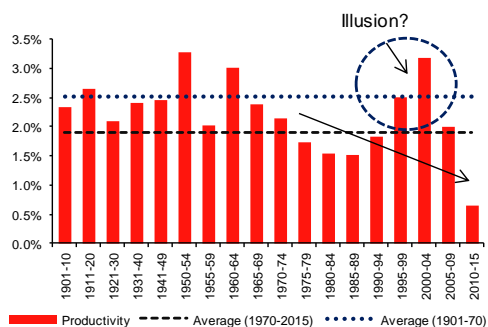
In our view, the bedrock of most of the above dislocation is to be found in a lack of productivity and the gradual dissolution of conventional labour markets. This returns us to Marx's concept of 'Lumpenproletariat'. It is this broad dislocated segment that tends to be bulk of the votes for extreme political choices (whether in the US, UK, Austria or the Netherlands). **Disorientation breeds fear and fear leads to extreme choices.**

The US has by far the best and the most consistent labour force and employment data base. Hence, it is a natural default to use the US as an example and reference point.

**The key is persistently low productivity rates due to...**

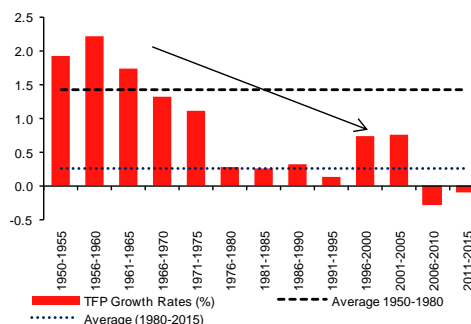
The starting point is **persistence of low productivity rates**. As discussed in our prior notes, US labour productivity stagnated from the 1980s onwards (apart from a temporary spike around the millennium). In the case of more meaningful total factor productivity (TFP), the US has been reporting declining productivity since the late 1970s. Over subsequent decades, stagnant productivity was pretty much replicated across most DMs and increasingly EMs. Whilst there is a great deal of debate as to whether this slowdown is cyclical or secular, we believe that given that some countries have been reporting declining productivity rates for decades (i.e. predating the GFC) and given that it is not an isolated but is a global phenomenon, secular factors must far outweigh cyclical. Also, as discussed ([here](#)) we believe that it is intellectually incoherent to argue that we are simply mismeasuring productivity gains.

**Fig 18 US labour productivity (% growth)**



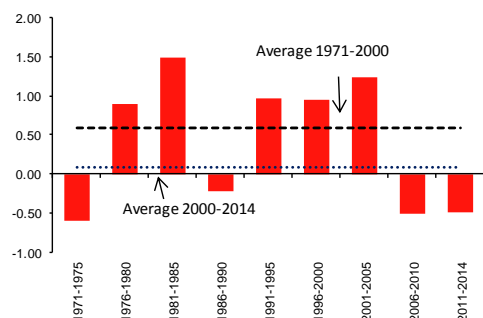
Source: CEIC; Macquarie Research, July 2016

**Fig 19 US – TFP growth rates (%)**



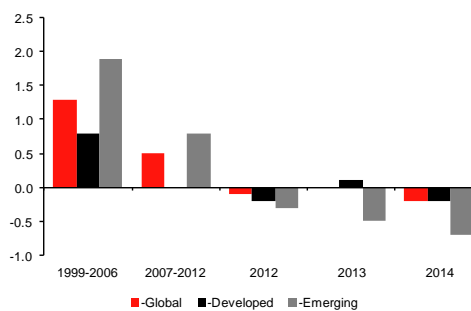
Source: SF Fed; Macquarie Research, July 2016

**Fig 20 UK – TFP productivity (%)**



Source: TED; Macquarie Research, July 2016

**Fig 21 Global – TFP growth rates (%)**



Source: TED; Macquarie Research, July 2016

As Groningen Productivity studies shows, declining productivity is primarily reflection of the fact that an **increasing proportion of the labour force and employment is essentially “warehoused” in lower productivity occupations**, pending either their final elimination and replacement or (hopefully) an accelerated move into higher productivity occupations.

**...transfer of labour to lower productivity occupations**

In other words, as technology evolves, parts of the economy become extremely competitive but these segments tend to slowly and gradually reduce productivity of everyone else. The classic example is clearly impact of Amazon on Wal-Mart or impact of electronic trading on equity or fixed income traders or technological impact on clerical, accounting or legal profession. Indeed, the same largely applies to manufacturing. Whilst economists were correct to argue in 2008/09 that the US would experience a manufacturing renaissance, we were right that it was unlikely to lead to any significant rise in employment, as technology can now deliver superior outcomes with much less labour.

Most investors would immediately argue that this is good news as there is higher productivity per employee. Unfortunately, these investors would be wrong, as this argument ignores cross-sectional movement of labour.

**Around 70% of the US and UK and 75% of French employment is now in low productivity areas**

As can be seen below, the least productive occupations are now dominating US labour employment. Whereas in 1950 ~19% of employment was in government, health care and education by 2010, this has risen to 31% and is ~32% currently. Retail and wholesale trade, restaurants and hotels employment share also increased from 20% in 1950 to ~25% today. On the other hand, manufacturing is down from 25% in 1950 and 19% in 1980 to ~9% currently and the transport and communications category is down from 8% to 4%. In total, it seems that today ~70% of the US employment is in lower than average productivity occupations.

Whilst the nature of individual sectors varies between countries, the same process is playing out in most other economies. For example, lower productivity occupations are now accounting for more than 70% of the UK employment and almost ¾ of French employment.

**Fig 22 US – employment & relative productivity comparison**

	Employment (Cagr)			Output/Employee (US=100%) 2000-2010	Employment Structure		
	1950-2010	1950-1980	1980-2010		1950	1980	2010
<b>Low Productivity Occupations</b>							
Government, Health & Education	2.2%	2.7%	1.7%	69%	18.9%	25.2%	31.0%
Community, Social & Personal	2.2%	2.9%	1.5%	63%	4.1%	5.6%	6.5%
Trade, Restaurants & Hotels	1.7%	2.2%	1.2%	67%	20.1%	23.0%	24.0%
Construction	1.2%	1.7%	0.7%	82%	5.9%	5.7%	5.0%
Agriculture	-1.6%	-2.2%	-1.1%	66%	9.1%	2.8%	1.5%
<b>High Productivity Occupations</b>							
Finance, Insurance & Business Services	3.1%	3.6%	2.6%	186%	6.8%	11.4%	18.0%
Transport & Communication	0.5%	0.6%	0.3%	118%	7.8%	5.5%	4.4%
Utilities	0.3%	1.3%	-0.7%	440%	0.7%	0.6%	0.4%
Mining	-0.5%	0.2%	-1.2%	425%	1.6%	1.0%	0.5%
Manufacturing	-0.4%	0.9%	-1.6%	116%	25.0%	19.2%	8.7%

Source: Groningen data base, 2014; Macquarie Research, June 2016

**Fig 23 UK – Employment & relative productivity comparison**

	Employment (Cagr)			Output/Employee (UK=100%) 2000-2010	Employment Structure		
	1950-2010	1950-1980	1980-2010		1950	1980	2010
<b>Low Productivity Occupations</b>							
Government, Health & Education	1.3%	1.5%	1.1%	76%	15.8%	23.3%	30.1%
Transport & Communication	0.9%	0.9%	0.8%	76%	14.9%	12.3%	10.8%
Trade, Restaurants & Hotels	0.9%	0.9%	0.8%	83%	14.0%	17.3%	20.3%
Construction	0.4%	0.7%	0.2%	95%	6.7%	7.7%	7.5%
Agriculture	-1.5%	-2.3%	-0.7%	50%	5.5%	2.5%	1.9%
<b>High Productivity Occupations</b>							
Finance, Insurance & Business Services	3.0%	2.7%	3.3%	166%	2.2%	4.7%	11.6%
Community, Social & Personal	1.8%	0.8%	2.8%	108%	2.5%	3.0%	6.2%
Utilities	-1.4%	-0.3%	-2.5%	480%	1.2%	1.0%	0.5%
Manufacturing	-1.5%	-0.3%	-2.7%	121%	30.7%	26.1%	10.7%
Mining	-5.0%	-3.7%	-6.2%	1123%	6.5%	2.0%	0.3%

Source: Groningen data base, 2014; Macquarie Research, June 2016

**Fig 24 France – Employment & relative productivity comparison**

	Employment (Cagr)			Output/Employee (Fr=100%) 2000-2010	Employment Structure		
	1950-2010	1950-1980	1980-2010		1950	1980	2010
<b>Low Productivity Occupations</b>							
Finance, Insurance & Business Services	2.2%	1.8%	2.5%	42%	6.0%	9.3%	17.3%
Government, Health & Education	1.4%	1.4%	1.4%	102%	16.5%	22.8%	29.9%
Community, Social & Personal	1.4%	1.4%	1.4%	94%	1.9%	3.7%	6.6%
Trade, Restaurants & Hotels	0.9%	1.2%	0.6%	103%	12.5%	16.2%	17.1%
Agriculture	-3.1%	-3.2%	-3.0%	85%	25.5%	8.7%	3.1%
<b>High Productivity Occupations</b>							
Transport & Communication	0.9%	1.1%	0.7%	139%	4.8%	6.0%	6.5%
Utilities	0.8%	1.3%	0.3%	319%	0.6%	0.7%	0.7%
Construction	0.3%	0.9%	-0.3%	121%	7.6%	9.0%	7.1%
Manufacturing	-0.8%	0.3%	-1.9%	126%	23.6%	23.2%	11.4%
Mining	-3.3%	-2.6%	-3.9%	167%	1.1%	0.4%	0.1%

Source: Groningen data base, 2014; Macquarie Research, June 2016

One of the problems with Groningen data base is that it (by necessity) is using the broadest possible definition of different employment categories (in order to make it comparable on a global basis). However in the case of several countries (such as the US), we have access to far more granular information, though over far more limited time space (the numbers only extend into 1980s).

**Our assessment of BLS statistics indicates that ~40%-45% of jobs are low quality and...**

As discussed in our prior reviews (refer [What caught my eye? v.43 - Why consumer & business reticence?](#), 29 June 2015), **we tend to divide job classifications (using BLS data base) into two broad categories:**

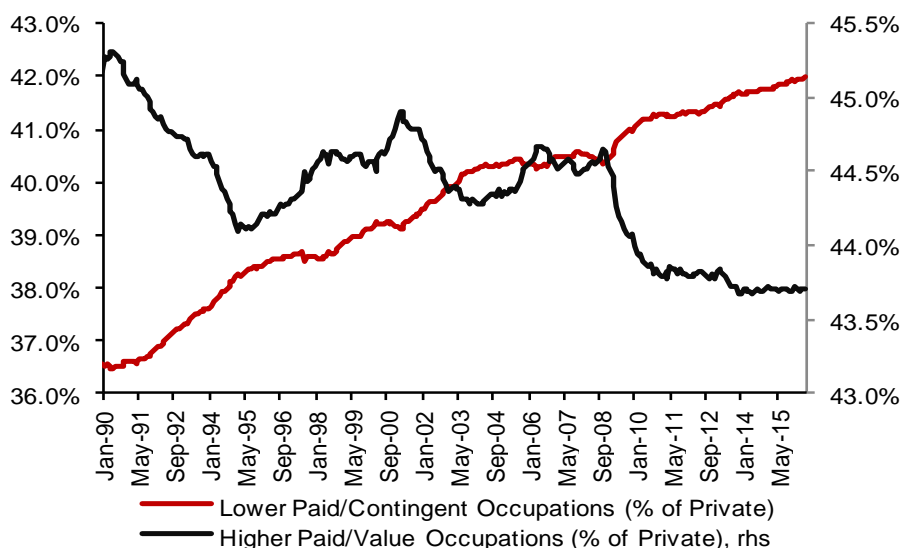
- (a) More traditional and higher value occupations that have a tendency to have higher pay scales and more sustainable benefit packages; and
- (b) Lower end and far more contingent type jobs.

Our low-end jobs classification includes: (a) retail; (b) food service & drinking places; (c) accommodation; (d) arts & entertainment; (e) administrative & waste services; (f) social & family care; (g) warehousing & storage and (h) messengers & couriers and miscellaneous services. On the other hand, our high-end occupations includes: (a) durable manufacturing; (b) utilities; (c) mining; (d) construction; (e) professional & technical; (f) management enterprises; (g) healthcare; (h) financial & information services.

**...about 1/3 of new jobs can be eliminated at short notice**

The segments that we would classify as the low-end jobs represented around 48% of employment additions since the low point in the recent payroll cycle Feb 2010 (or ~7.2m new jobs) whilst what we would describe as the high-end jobs added ~6.2m new jobs (or ~42% of the total). The last six years represented essentially a continuation of a trend towards lower-end jobs in the US, which started in the mid-to-late 1980s. On our estimates, low end/contingent jobs represented ~36% of the total labour force in 1990 and today it is ~42% (or around 52m jobs vs. 33m in similar occupations in 1990) whilst the high end jobs used to be 45%-46% and today the number is closer to 43.5%.

**Fig 25 US employment – Lower/contingent vs higher value categories (%)**



Source: CEIC; Macquarie Research, July 2016

Another way of looking at the same statistics is to argue that most of the net jobs that were created since 2010 in retail, food services & drinking places, accommodation, social & family care as well as messengers and miscellaneous services can be eliminated on a very short notice. Since Feb 2010, these jobs accounted for more than 4.5m or around 1/3 of total net job creation. If we add construction (a highly paid but largely contingent occupation), the total rises to ~5.5-6.0m or approximately 40% of the total net adds.

Government Accountability Office (GAO) has recently estimated that up to **40% of employment could be now contingent**. This estimate marries quite nicely with our assessment above. Whilst contingent does not necessarily imply that it is a poor employment, it does indicate greater degree of fluidity than conventional jobs in prior decades.

**GAO estimates that  
~35%-40% of jobs  
are now contingent  
and...**

There is a vibrant discussion as to the extent to which employment and income are now either shared or outsourced or in some ways distorted. Some call it 'Gig', some 'fissured' and some 'fake' employment. Essentially what these competing theories attempt to define is a changing structure of the economy and **breakdown of conventional professions and occupations** to be replaced by a mix of part-time, temporary and shared jobs and occupations, predominantly in service industries, which BLS's current methodology has difficulty tracking.

**...it is expected that  
by 2020 30%-40% of  
US jobs could be on  
alternative  
arrangements**

For example, a paper by Katz and Krueger from Harvard and Princeton estimated that between 2005 and 2015, the number of employees in alternative work arrangements (such as contract workers, help agencies, freelancers, contract workers, on-line) rose from 10% to 16%, with the contract proportion rising particularly rapidly. To put it in another perspective, academics estimated that almost 10m were added to the workforce in alternative arrangements (higher than total employment increase in 2005-15). Although, the proportion of workers utilizing on-line platforms (such as Uber) remained low (under 1%), the pace of growth is extremely fast. Various studies indicate that potentially up to 30%-40% of total US employment could be in alternative arrangements by 2020. Similar estimates for the UK indicate ratios as high as 25%-30%.<sup>2</sup>

Again, whilst there is nothing intrinsically wrong with alternative arrangements, either as a direct source of employment or supplement to existing arrangements, the important message from our perspective is that it is indicative of deep structural shifts that are bound to alter social, welfare and consumption strategies. As in the past two industrial revolutions, we believe that technology is the key driver, as it eliminates past jobs and certainties, replacing it with different economies. **Not dissimilar to Marx's 'Lumpenproletariat', current generation needs to adapt to shifting landscape, just as aristocrats and farmers needed to do in 1800s.** However, key difference is that whereas past technological evolutions were aimed to supplement humans, the Third Industrial revolution is aiming to replace them completely, and hence we continue to view it as intrinsically far more disruptive.

As discussed in our past reviews (refer [What caught my eye? v.59 - In praise of Thematics](#) 7 June 2016), over the next decade, there would be **several waves of 'extinctions'**, with a growing range of jobs and professions becoming extinct whilst the remaining jobs would be subject to massive disruptions, and perhaps more importantly declining pricing power.

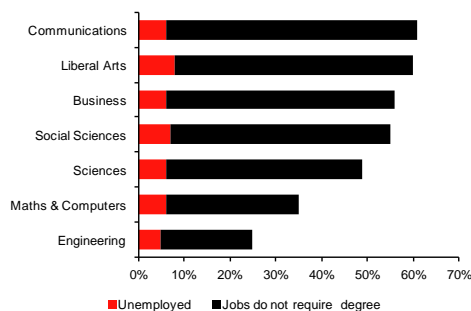
**Waves of job and  
occupational  
extinctions**

As McKinsey Global institute predicts, the global economy might by 2020 have a surplus of ~100m jobs in low and medium skill occupations (including ~60m in emerging markets alone). However we believe that the real position is likely to be far worse as even higher skill jobs are being rapidly displaced. It is expected that over the next decade or two, around 95% of accountants; 90% of technical writers and almost half of economists and pilots would be replaced. The same largely applies to lawyers, paralegals, traders and investment advisors. It is expected that almost 90% of real estate agents would disappear and almost 100% of telemarketers (a very large and high value industry in a select few emerging markets, such as India and the Philippines). Increasingly routine articles by magazines like Forbes or various newspapers (such as sports news, weather etc) are written by computers, with limited, if any, human involvement. The same sadly applies to routine tasks undertaken by investment analysts (such as quarterly results notes).

These are professions that require at least, secondary and more likely tertiary education and training. Hence, McKinsey Institute's estimate of skills shortage approximating ~90m in higher end occupations (by 2020) is likely to be grossly overstated. Any job that requires human touch (such as clergy, nurses, sports coaches or bartenders) is likely to be safe (at least for the time being). Whilst most commentators highlight the need for higher education and skilling as the way to avoid 'replacement' and create higher value-added occupations, current labour market outcomes disagree. For example, according to a CareerBuilder survey, in 2014, around 51% of US graduates have been employed in industries that do not require their academic qualifications. Similarly, a NY Fed survey for the 2009-12 period highlights that more than 40% of graduates are employed in industries that do not require a 4-year degree. This included around 20% of engineering graduates and almost 30% of maths and computer science graduates. The same mixed picture emerges when graduates were asked whether the cost of education was equal or outweighed the benefit.

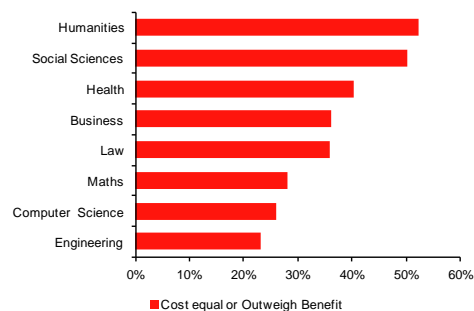
<sup>2</sup> Lawrence Katz and Alan Krueger, "The Rise and Nature of Alternative Work Arrangements", RAND, March 2016; "Size of the UK 'Gig Economy', University of Herefordshire, February 2016

**Fig 26 US graduates employed in jobs that do not require degree (2009-12)**



Source: Fed NY; Macquarie Research, July 2016

**Fig 27 US graduates – education cost vs. benefit - 2015**



Source: Federal Reserve, 2016; Macquarie Research, July 2016

Thus, it is not only the shift in the types of jobs that are being created that drives economic outcomes (such as consumption and saving behaviour) but also frustration felt by people who are unable to secure the right skills and qualifications that are supposed to result in stable and well-paid jobs and offer ongoing career options. Whereas, the First and Second Industrial Revolutions required a **gradual path** of improving skills, from eradicating illiteracy to primary and then secondary and finally college education, it is not clear that attending four year college program would ensure the same career path in the Third Industrial revolution.

**Changing dynamics  
of labour markets  
impacts EMs as  
much as DMs**

The impact of shifting jobs and priorities **would be felt as much in EMs as in DMs and probably more so**. As highlighted in our reviews ([here](#)), the above described structural shifts could easily convert expected demographic dividends in countries and regions like India, Africa, Middle East or Indonesia into demographic curses, as billions of young people based in least developed countries might encounter much greater difficulty than the 1970s-90s generation in integrating into the global economy. **In a world of 'declining returns on humans' having too many young people might be a recipe for social and political dislocation rather than growth, even if the business climate is improved.**

In our view, it is quite likely that when historians examine the last one hundred years, they would classify 1950s-1990s as the **'golden age'**. Although there would be inevitable academic disputes about exact boundary (i.e. whether the golden age ended in 1980s or whether there were two golden ages, i.e. 1950s-mid 1960s and 1980s-90s), however, as an overall period, we think it was time of increasing opportunities and generally rising returns on human capital. However, 2000-2030s will likely be classified distinctly differently.

## Policy & investment choices

What does this uncertain and increasingly violent world mean for policy makers and investors?

***Dynamics of labour markets is driving 'populism'***

As in 1870s-80s, we believe that political response to growing anxiety of citizens (and in many cases voters, although quite often non-democracies tend to be even more sensitive to views of the country's residents) with a number of policy changes:

### 1. ***Proliferation of policies designed to protect and shelter domestic economic activity.***

Whilst in 1870s-80s, there was no WTO, either over or covert protectionary measures have always been dangerous, as they tend to invite retaliation (as trade wars between France and Italy or Russia and Germany in late 19<sup>th</sup> century illustrated). Hence even in the absence of formal rules, increases in tariff protection in late 19<sup>th</sup> century were generally gradual and hesitant.

In our view, this is exactly what is likely to happen over the next five-to-ten years, except there would be less reliance on tariffs and greater use of non-tariff protection (such as labelling of products; quality and safety rules; anti dumping regulations). With the benefit of hindsight the ***breakdown of Doha multilateral round of negotiations that started in 2001 and died in 2008 would probably go down in history as the high point*** of liberalization and freeing global trade. After many successful preceding rounds, Doha disintegrated under pressure of disagreements on agriculture, industrial tariffs and more importantly non-tariff barriers and services.

We believe that it was the above outlined pressures points across both developed and emerging economies that grew in strength since the 1990s, implied that only small incremental liberalization steps could be made. In our view, even these steps are likely to reverse as we progress over the next decade.

### 2. ***Increasing closure of borders and much stricter immigration and asylum policies.***

As in late 19<sup>th</sup>-early 20<sup>th</sup> centuries, governments would increasingly resort to tighter border and immigration controls. Whilst cultural and xenophobic issues would play a part, it would be essentially designed to shelter disoriented and frightened citizens from the perception that not just foreign goods but also foreign people are eroding local opportunities.

The borders finally closed globally in the 1920s; we would expect the same to occur across a wide range of countries. The only key difference is a high probability of growing refugee migration that (as we discussed above) is likely to rise significantly in the current decade, as employment and income opportunities decline in emerging markets with a surplus of younger people. In our view Europe would remain on the front line but economic and refugee mass migration would impact everyone.

### 3. ***Massive changes to welfare and social support policies.***

Current social and ***welfare policies are structured in the context of traditional Second Industrial Revolution societies.*** Apart from protecting the most vulnerable members, the policies are essentially designed to cushion and support transition from one job or occupation to another without significantly diminishing work incentives.

However, in the context of an emerging new 'sharing' or 'gig' economy and declining returns on traditional human inputs, these policies need to recognize that potentially the ***majority of people that are currently 'warehoused' in low productivity occupations might not be needed*** in the future (possibly within a decade or perhaps even sooner). Under these circumstances, how would the government ensure demand multiplication? Our answer is that the government would have no choice but to provide minimum income guarantees and spending vouchers and perhaps other rewards for higher spending, without any requirement to look for or hold a job. Whilst some would call it socialism, we maintain that it is the inevitable and logical outcome of the Third Industrial Revolution.

***We expect more trade barriers, with the collapse of the Doha round in 2008 being the high point of trade liberalization***

***We also expect tighter immigration controls and...***

***...massive changes in welfare and social support policies***



#### 4. **Changing the role of the Government – pendulum firmly in state corner**

We also maintain that whilst some of the above consumption expenditure would be paid through conventional neo-Marxist re-distribution of income and wealth, it would be mostly financed directly through central banks, thus breaking the nexus between borrowing and spending. The same largely applies to the governments' role in fixed assets and infrastructure investment.

**The role of the state  
will continue to  
expand**

Although the risks are high, as discussed in our previous notes, we believe that there is no choice but for governments to become far more proactive. We also believe that given the above challenges as well as pre-existing debt burden (more than 3x global GDP), the state cannot allow volatility rates imbedded in the financial superstructure to undermine the real economic outcomes. **The need to control financial volatilities and finance its expanded role implies the inexorable path towards 'nationalization of credit'.**

As citizens ask for help to reduce uncertainties and protect them from volatilities of financial, technological and real economies, the **politicians are likely to respond**. The recent rise in populism is not an aberration but a logical outcome. Hence, we expect that over the next five-to-ten years, most countries would swing either to the left or to the right and in both cases the role of the government and state is likely to rise. Although over the longer-term the risks are high (as Weimer Republic in 1923 or Japan in 1930s or Britain in 1960s illustrated), we do not currently see an alternative.

#### **Investment strategies – 'Quality'; 'Thematics'; 'Follow the Government' and 'Least efficient and most protected'**

What we have described above is what can be regarded as a somewhat extreme version of a non-mean reversionary world, with no conventional business or capital market cycles and largely extinguished free market signals ([here](#)).

**We maintain our  
core 'Quality and  
Sustainable Growth'  
and 'Thematics'  
portfolios...**

We maintain that **this world requires a different set of investment strategies**; it essentially favours long-term investors and penalizes traders. However, when one thinks of long-term investors, this phrase has lost a lot of its meaning over the last several decades. It has come to symbolize investment horizons longer than three months but usually shorter than three years. It also started to symbolize some form of value, volatility or GARP investment (all mean-reversionary strategies that are unlikely to work).

Our view of long-term fundamental investment encompasses two key strategies:

1. **'Quality Sustainable Growth'**. We have run this portfolio for around 3.5 years and its essential characteristic is an attempt to identify corporates that are capable of maintaining and growing ROE (in our case minimum of 12%), primarily through margins rather than revenues and without incremental leverage. We also maintain that the entire financial sector is impaired and hence we do not include any financial stocks and we would like to see some free cash flow stability. We only pay attention to multiples at extremes. Given that we are agnostic to sector selection (other than financials) and given that we are not looking for safety and are not aiming to reduce volatility, the portfolio tends to be tilted to globally and regionally competitive corporates, with IT, software, technology, pharma/biotech and life sciences as well as industrials and consumer discretionary stocks having a dominant share. Most of consumer staples do not make it on account of falling margins and/or rising leverage ([here](#), for our stock composition and performance).
2. **'Thematic Winners'**. We continue to like Thematics as some of the least correlated and most independent strategies. However, as in the case of Quality, one needs to be careful in defining appropriate Themes. We maintain that most of the key Themes are now not opportunities (i.e. demographics, middle class creation etc) but constraints-based. The most powerful constraint that has been identified in our reviews is the **'Declining Returns on Humans'**. It essentially involves investing in strategies that benefit from redefinition of value and nature of human contribution, such as (a) 'replacement' (robotics, automation and AI); (b) 'augmentation' (principally genome); (c) 'opium of the people' (games, consoles, gaming, entertainment); (d) 'skilling'; (f) social and geopolitical dislocation (i.e. weapons, drones, security firms); (g) 'facilitators and enablers'. ([here](#) and [here](#)).

**However we also contemplating adding government-driven portfolios as...**

However, a third type of portfolio that we have been highlighting for some time is the one based essentially around state responses to the current stagnation and volatility. Whereas the first two portfolios attempt to ignore the state, whilst accepting that investors are likely to continue residing in a non-mean reversionary world, **the third portfolio would be structured around the government**. Given that we believe that the role of the government will continue to increase, this portfolio could become much more important in investor's tool box.

At different times, we called it '**Anti-Quality**' (to differentiate with our key Quality Portfolio, as in this portfolio quality or growth plays no part) or '**Follow the Government Portfolio**' (refer to some of the discussion [here](#) and [here](#)).

However what are the key ingredients of this alternative strategy that could become important over the next 12-24 months? Essentially, these portfolios are designed to capture and benefit from governments' actions, no matter how destructive or ineffectual they might turn out to be. In our reviews ([here](#)) we have identified four key areas of the government's activism:

**...state is likely to get much more involved in multiplication of consumption...**

1. **Multiplication and support for consumption**, through various mechanisms, such as minimum income guarantees (despite recent defeat of Swiss referendum); short-dated spending vouchers etc. Given our view that we inhabit a world of declining returns on humans, it makes sense to ensure that aggregate demand continues to multiply.

**...fixed asset investment; R&D and skilling as well as...**

2. **Fixed asset and infrastructure investment**. We maintain that the bulk of the world already has sufficiently good (acceptable) infrastructure and given that returns on humans are declining, there does not appear to be very strong reasons for investing significant further incremental funds, apart from countries that suffer from severe shortage (a la India or Africa). However, from the governments' perspective the advantage of fixed asset investment is its significant multiplier impact and a quick 'bang for the buck' (irrespective of whether incremental infrastructure improves productivity).

3. **R&D and skilling**. We maintain that this is one area which was unnecessarily abandoned by the public sector after 1979/80. The private sector tends to do very little basic research and hence, it would make sense to significantly increase public sector spending (such as resurrecting Bell Labs or NASA). Similarly, in many countries the government has retreated too far from skilling and education. However the unfortunate part about this type of investment is that whilst potentially useful, it has very long-term pay back periods.

**...ultimate nationalization (or at least underwriting) of capital markets and finance, pension and life industries**

4. **Nationalization of finance and capital markets**. We maintain that ultimately the current structure and positioning of banking, finance, life and insurance and pension systems is not sustainable. Hence it is highly likely that the state would need to get increasingly involved, ultimately leading to nationalization or effective underwriting of significant portions of capital markets.

As discussed in our prior notes, there are three ways of paying for this expansion of the role of state:

1. **Neo-Marxists style re-distribution of wealth** via higher tax rate at higher income levels and perhaps a globally-coordinated wealth tax (a la Piketty suggestions). Given that success and innovation is very seldom motivated by taxes (or lack of them), it is quite possible that it might work.
2. **Increased state borrowing**. Although clearly interest rates are exceptionally low, we find it amusing that flow-based economists tend to completely forget the balance sheet and the fact that even at zero rates any country becomes bankrupt when leverage reaches critical levels. It also leaves it unable to ever return back to some form of normality.
3. **Central bank-funded** expenditure. In other words, it represents a different and far more potent form of QE, whereby the state and CBs stop trying to convince the private sector and switch to direct funding of projects and expenditure.

***The future (unfortunately) lies in the close merger of fiscal and monetary policies***

We maintain that ***(3) is the most likely alternative*** and we also believe that Japan is likely to be the first country to embrace this aggressive form of QE. Over time, most other economies (certainly Eurozone and China) would join a similar CB funded direct QE program. Although over the longer-term it would lead to lower ROE and greater misallocation of resources, it is also likely to be successful in kick starting aggregate demand multiplication and inflation.

Also as highlighted above, ***governments are likely to increasingly sponsor and protect local businesses (particularly if they are major employers and contributors).***

As the above quotes from Donald Trump and Theresa May illustrate, companies like Apple, Google or Starbucks will come under significant pressure to 'localize' and safeguard jobs whilst contributing to the taxation base. Although this does not mean that it would completely derail competitive industries and operators (just like tariffs in the 1880s-90s did not derail trade) and there is a good reason why these companies are successful (i.e. superior products, technologies and distribution), nevertheless, on a margin these companies would come under pressure.

***As investors progress over the next 12-24 months, there will be a need to structure government-driven portfolios, like, 'Follow the Government' and 'Least efficient and most protected'***

However, which companies are likely on a margin to ***win from these Government policies?*** Whilst we are still debating internally the name as well as specific criteria and filters that we might deploy to screen thousands of stocks, the basic outline is clear. The focus would be on:

1. Local companies with limited international exposure and working with and benefiting from national and local (rather than international) trends;
2. Local companies that are relatively large employers and contributors to the local taxation base with strong state contacts and the ability to tap into the flow of business (either consumption, infrastructure or rationalization of financial sector);
3. Local companies that are also relatively inefficient and have the capacity to improve performance due to higher trade and capital protection offered by the state.

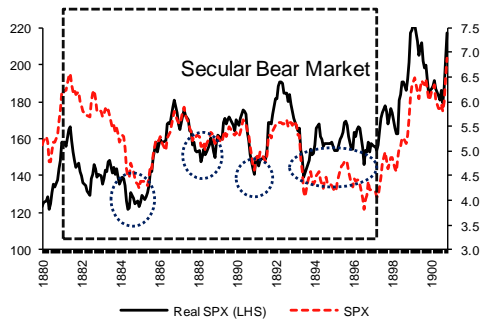
The companies that eventually might feature on this list would include some of the local companies producing consumer products peculiar to or dominant in a given country or companies that have capacity to participate in and benefit from any increase in fiscal spending and investment. It might also benefit locally run offshoots of multinationals that are sufficiently independent and localized. It could include anything, from noodles to tobacco; from materials to infrastructure; from textiles to widgets and agriculture.

This portfolio could be called, ***'The least efficient and the most protected'***. Whilst we have not yet done sufficient work to identify and structure such a portfolio, for investors (particularly with much stronger than our) local knowledge, this could be a valuable addition to Quality portfolio, which is likely to grow in importance over time.

Another interesting question is ***whether our flagship 'Quality Sustainable Growth' portfolio would perform even in the forthcoming world of 'state capitalism'?*** Whilst there is no right or wrong answer (as there is no modern precedent to the degree of state control that we envisage in the coming years), intuitively, it is quite possible that the 'Quality Sustainable Growth' portfolio might still perform. As discussed above, there is a good reason why these companies are so successful and that reason might be blunted by government action but is unlikely to be overruled.

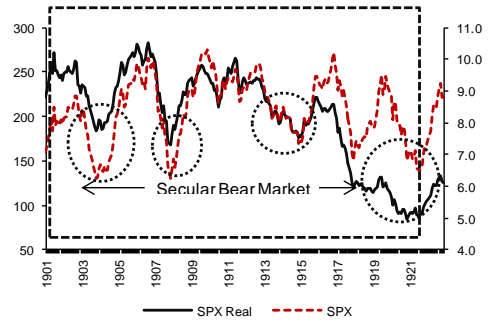
For investors who are interested how did equities perform in late 19<sup>th</sup> and early 20<sup>th</sup> centuries, there were two extended secular bear markets that lasted several decades, punctuated by exceptionally steep rallies and equally steep corrections, in essence not dissimilar to what investors experienced since 2000, with *real* SPX only recently barely re-capturing the previous high reached in August 2000.

**Fig 28 US – Real & Nominal SPX (1881-1897)**



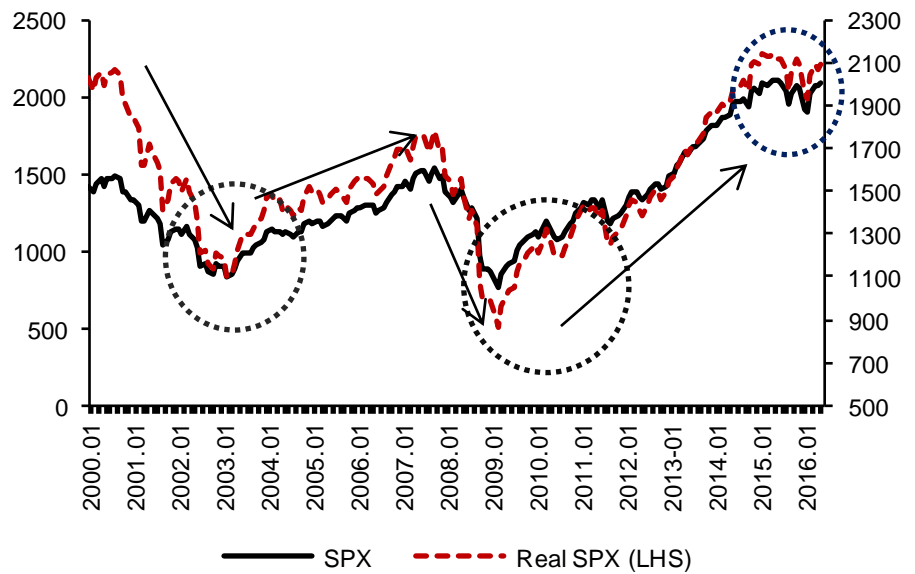
Source: Shiller; Macquarie Research, July 2016

**Fig 29 US – Real & Nominal SPX (1901-1920)**



Source: Shiller; Macquarie Research, July 2016

**Fig 30 US – Real & Nominal SPX (2000-2016)**



Source: Shiller; Macquarie Research, July 2016

# Appendices

Fig 31 Index performance, (Local currency, unless stated otherwise), %

MSCI Indices	- 1W	- 1M	- 3M	- 1Y	- 3Y	- 5Y	YTD	Index
<b>MSCI AC Asia ex JP (LC)</b>	0.2	1.3	2.5	-7.6	3.9	-1.2	1.0	629
ASXJ Consumer Discretionary	-0.1	0.6	-1.9	-5.5	-17.3	-22.7	-3.9	407
ASXJ Consumer Staples	-1.0	1.5	5.7	3.5	15.3	28.1	7.5	512
ASXJ Energy	-1.2	-0.8	2.0	-10.1	-22.1	-40.7	9.1	529
ASXJ Financials	-0.1	0.5	2.4	-15.4	0.2	-3.5	-4.3	277
ASXJ Health Care	2.1	5.1	2.5	-1.6	44.6	82.9	-1.7	965
ASXJ Industrials	-0.1	-1.0	-4.0	-19.1	-6.3	-26.9	-6.7	147
ASXJ Information Technology	1.0	3.5	6.7	3.7	30.3	47.3	7.9	342
ASXJ Materials	0.4	0.6	-1.6	-1.7	-1.6	-35.2	7.0	295
ASXJ Utilities	-0.9	-1.7	-1.6	-2.8	6.0	23.8	1.1	222
ASXJ Telecom Svcs	0.4	2.6	5.5	-4.9	2.9	19.8	5.6	143
<b>MSCI AC ASIA EX JP U\$</b>	0.1	1.7	2.2	-9.1	-1.2	-11.0	2.2	511
MSCI CHINA U\$	0.0	1.3	0.0	-18.4	1.1	-15.0	-5.6	56
MSCI HONG KONG U\$	-0.6	-0.4	0.9	-10.6	5.4	9.9	-1.2	9,334
MSCI INDIA U\$	1.4	3.5	7.7	-5.1	19.9	-6.5	3.3	475
MSCI INDONESIA U\$	2.8	8.2	6.6	8.4	-13.0	-20.8	16.9	763
MSCI KOREA U\$	-0.4	1.2	2.4	0.7	-1.1	-18.1	5.1	374
MSCI MALAYSIA (EM) U\$	0.1	2.8	-6.0	-7.9	-28.5	-25.8	6.0	361
MSCI PHILIPPINES U\$	-0.7	2.4	5.9	2.2	16.2	70.0	12.6	598
MSCI SINGAPORE U\$	-0.3	2.5	0.7	-13.3	-18.5	-19.5	4.3	3,392
MSCI TAIWAN U\$	0.6	1.2	5.0	-5.4	4.0	-3.5	9.5	291
MSCI THAILAND U\$	0.4	2.7	7.9	-6.3	-15.3	-0.7	20.1	354
<b>MSCI China</b>	0.0	1.3	0.1	-18.3	1.1	-15.3	-5.5	56
<b>MSCI Hong Kong</b>	-0.7	-0.5	1.0	-10.5	5.4	9.5	-1.1	13,040
<b>MSCI India</b>	1.3	4.1	8.9	0.6	34.7	41.2	4.9	1,034
<b>MSCI Indonesia</b>	2.5	6.7	6.4	6.7	14.3	21.8	11.1	6,060
<b>MSCI Korea</b>	-0.5	-0.4	2.4	2.2	1.1	-11.2	2.8	542
<b>MSCI Malaysia</b>	0.0	0.7	-3.5	-3.1	-9.9	-1.7	-1.5	579
<b>MSCI Philippines</b>	0.3	5.0	8.6	7.2	26.7	87.3	13.1	1,360
<b>MSCI Singapore</b>	0.1	2.0	1.2	-13.4	-13.0	-11.7	-0.7	1,488
<b>MSCI Taiwan</b>	0.6	1.2	4.5	-1.8	12.0	7.7	7.3	328
<b>MSCI Thailand</b>	0.6	2.4	8.1	-3.1	-4.3	15.1	17.3	499
<b>MSCI EMG</b>	0.5	1.8	2.5	-5.5	4.9	-1.0	3.6	46,090
<b>MSCI World (Dev)</b>	1.3	1.4	3.7	-3.7	18.1	40.5	-0.2	1,275
<b>MSCI AC World (All)</b>	1.2	1.5	3.5	-3.9	16.6	35.0	0.1	469
<b>MSCI Japan</b>	-0.5	-5.6	-2.0	-22.2	1.8	39.6	-19.6	753
<b>MSCI USA</b>	1.7	2.0	4.8	2.3	27.3	61.2	4.4	2,035
<b>MSCI AC Asiapac x JP (\$)</b>	0.3	1.8	3.3	-7.8	-4.3	-12.8	2.5	422
<b>MSCI AC WORLD U\$</b>	0.9	0.9	2.7	-4.4	9.5	19.8	1.4	405
<b>MSCI EM U\$</b>	0.4	2.8	2.8	-9.2	-10.2	-25.9	6.6	847
<b>MSCI WORLD U\$ (Dev)</b>	0.9	0.7	2.7	-3.9	12.0	27.5	0.8	1,676
<b>MSCI EM ASIA U\$</b>	0.3	1.9	2.5	-8.6	-0.8	-13.1	2.6	414
<b>MSCI WORLD EX JP (\$)</b>	1.1	0.9	2.7	-3.6	13.5	29.4	1.5	1,693
<b>MSCI EUROPE U\$</b>	0.0	-1.8	-3.1	-15.6	-6.2	-4.7	-7.0	1,416
<b>MSCI EMU U\$</b>	0.1	-3.2	-4.9	-16.3	-3.3	-8.5	-8.8	157

Note : Priced as of close of 12<sup>th</sup> of July 2016

Source: MSCI, Thomson, Macquarie Research, July 2016

Fig 32 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
<b>MSCI Country Index</b>	2.5	0.1	1.0	8.9	6.4	2.4	-3.5	8.6	1.2	4.5	8.1	2.5	3.7	-2.0	3.5
<b>Cons. Disc</b>	-1.9	-5.3	-9.7	17.0	5.8	-5.1	-8.2	8.3	-4.6	-1.7	9.3	0.9	1.1	-3.5	1.1
<b>Staples</b>	5.7	-2.7	4.8	11.9	4.3	7.3	-1.7	-7.6	-7.0	13.3	15.6	4.6	5.9	1.1	5.8
<b>Energy</b>	2.0	7.6	NA	-0.0	13.4	-19.0	-13.3	0.0	0.0	-3.9	6.9	1.2	11.4	-5.7	10.2
<b>Financials</b>	2.4	-1.2	5.0	21.4	5.8	-4.7	-4.0	12.3	0.9	1.8	10.1	1.1	0.5	-8.0	0.6
<b>Banks</b>	3.7	2.9	1.1	20.1	4.6	-2.7	-4.1	7.3	1.0	4.8	9.7	3.1	0.2	-5.8	0.8
<b>Real Estate</b>	3.8	-3.8	6.1	NA	NA	NA	0.4	15.2	0.7	4.8	13.0	1.3	4.4	-7.4	4.2
<b>Health Care</b>	2.5	-0.4	NA	6.6	11.8	0.1	-2.0	NA	0.0	17.2	-4.0	4.1	6.3	0.1	6.2
<b>Industrials</b>	-4.0	-6.1	-8.4	9.0	-1.9	-4.2	-3.9	6.2	-5.4	-4.3	5.5	-1.4	3.4	0.5	3.1
<b>IT</b>	6.7	5.5	-9.2	-2.2	NA	14.4	0.0	0.0	0.0	5.9	-20.9	6.8	0.8	-0.2	1.7
<b>Materials</b>	-1.6	-1.9	0.0	20.8	-10.8	-11.7	-2.6	0.0	NA	-0.8	8.0	1.3	7.9	-1.8	6.9
<b>Utilities</b>	-1.6	-11.1	1.7	13.0	-10.1	2.7	-0.8	-0.6	NA	NA	-3.6	-0.5	6.0	-9.1	5.4
<b>Telecom Services</b>	5.5	0.3	7.2	-3.3	18.4	3.9	-2.0	12.6	15.7	10.7	13.3	2.1	3.9	3.9	3.6

Note : Priced as of close of 12<sup>th</sup> of July 2016

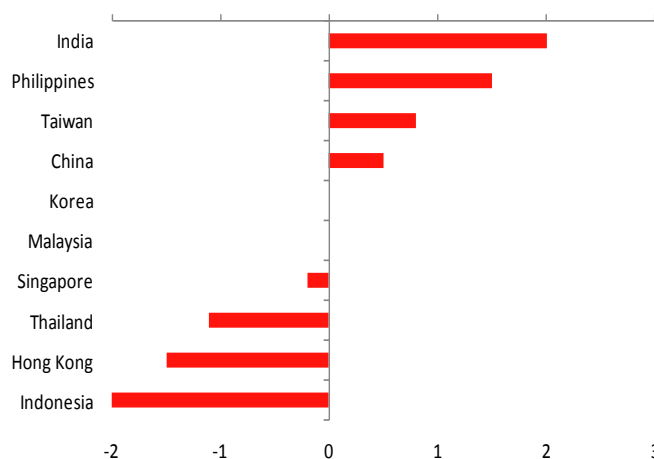
Source: MSCI, Thomson, Macquarie Research, July 2016

Fig 33 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
<b>MSCI AC Asia ex JP</b>	12.1	1.3	6.7	10.4%	2.9%	12.0	1.6	13.1%	2.9%	11.5	1.5	5%	-14%
ASXJ Consumer Discretionary	12.2	1.4	11.6	11.5%	2.3%	11.1	1.8	15.7%	2.4%	11.1	1.8	10%	-21%
ASXJ Consumer Staples	21.9	3.0	13.3	13.8%	2.0%	16.2	2.7	15.3%	2.4%	18.9	2.7	16%	11%
ASXJ Energy	13.8	0.9	13.7	6.5%	2.9%	10.0	1.6	14.9%	3.2%	10.3	1.3	34%	-34%
ASXJ Financials	8.9	0.9	2.7	9.8%	3.8%	11.9	1.4	11.4%	3.3%	10.3	1.2	-14%	-27%
ASXJ Health Care	23.1	3.5	19.3	15.0%	0.9%	18.6	3.2	15.8%	1.1%	21.5	3.2	8%	7%
ASXJ Industrials	12.2	1.0	5.5	8.4%	2.8%	13.1	1.4	10.7%	2.5%	12.6	1.3	-3%	-20%
ASXJ Information Technology	14.8	2.0	10.8	13.5%	2.1%	13.2	2.0	15.8%	2.2%	12.0	1.9	23%	6%
ASXJ Materials	13.0	1.0	21.9	7.7%	3.0%	10.3	1.4	13.0%	3.2%	11.7	1.3	11%	-22%
ASXJ Utilities	10.4	1.2	-4.3	11.5%	3.6%	12.5	1.4	10.8%	3.3%	13.1	1.4	-21%	-15%
ASXJ Telecommunication Services	15.5	1.8	4.5	11.7%	3.8%	13.1	2.0	15.1%	4.1%	13.7	1.9	14%	-3%
<b>MSCI China</b>	10.6	1.2	8.1	11.6%	2.7%	11.5	1.8	15.0%	3.0%	9.9	1.5	7%	-16%
<b>MSCI Hong Kong</b>	14.1	1.0	3.9	7.2%	3.7%	15.3	1.4	8.8%	3.3%	14.7	1.3	-4%	-20%
<b>MSCI India</b>	17.3	2.6	17.0	15.2%	1.7%	14.5	2.6	16.6%	1.6%	15.1	2.4	14%	9%
<b>MSCI Indonesia</b>	15.3	2.5	10.6	16.3%	2.5%	11.4	2.8	22.0%	3.2%	13.7	2.9	11%	-15%
<b>MSCI Korea</b>	10.0	0.9	5.9	8.9%	2.0%	9.3	1.2	12.5%	1.7%	9.3	1.1	9%	-19%
<b>MSCI Malaysia</b>	15.5	1.6	4.6	10.1%	3.2%	14.3	1.9	13.0%	3.6%	14.7	1.9	5%	-18%
<b>MSCI Philippines</b>	19.0	2.5	8.3	13.0%	1.7%	15.0	2.2	14.6%	2.7%	16.8	2.6	13%	-4%
<b>MSCI Singapore</b>	11.9	1.0	1.7	8.7%	4.3%	14.0	1.5	10.9%	3.7%	13.2	1.4	-10%	-25%
<b>MSCI Taiwan</b>	12.8	1.5	2.8	11.7%	4.3%	14.0	1.7	13.1%	3.9%	13.2	1.7	-3%	-11%
<b>MSCI Thailand</b>	14.2	1.8	10.8	12.4%	3.2%	10.9	1.8	16.3%	3.9%	11.8	1.9	20%	-6%
<b>MSCI EMG</b>	11.7	1.3	10.3	11.1%	2.9%	10.7	1.6	14.4%	3.3%	10.7	1.4	10%	-9%
<b>MSCI World (Dev)</b>	15.5	1.9	8.0	12.3%	2.8%	14.6	1.9	13.6%	2.7%	13.6	1.8	14%	8%
World(Dev) Consumer Discretionary	14.8	2.4	10.2	16.2%	2.3%	16.5	2.0	13.5%	2.0%	14.8	2.2	0%	8%
World(Dev) Consumer Staples	20.5	4.0	8.3	19.5%	2.7%	16.6	3.2	19.2%	2.8%	16.5	3.1	24%	28%
World(Dev) Energy	31.3	1.5	16.0	4.9%	3.8%	13.7	1.8	14.3%	2.8%	14.5	1.5	116%	2%
World(Dev) Financials	11.5	1.0	3.8	8.4%	3.9%	11.9	1.3	10.7%	3.4%	11.5	1.0	0%	-7%
World(Dev) Health Care	15.9	3.3	8.6	20.8%	2.1%	15.9	2.9	19.7%	2.3%	14.3	2.8	11%	17%
World(Dev) Industrials	15.3	2.3	13.2	15.0%	2.7%	15.2	2.1	14.5%	2.4%	14.1	2.1	9%	12%
World(Dev) Information Technology	15.8	3.1	9.3	19.7%	1.8%	19.1	2.9	18.2%	1.2%	14.2	2.7	12%	14%
World(Dev) Materials	16.6	1.6	9.8	9.9%	2.6%	13.9	1.8	13.7%	2.4%	13.2	1.7	26%	-1%
World(Dev) Utilities	16.5	1.6	-0.7	9.5%	3.8%	14.0	1.6	10.8%	4.2%	14.4	1.4	14%	16%
World(Dev) Telecommunication Serv	15.1	2.1	7.7	14.0%	4.2%	19.8	1.8	12.6%	4.6%	13.5	1.8	12%	18%
<b>MSCI AC World (All)</b>	15.0	1.8	8.3	12.1%	2.8%	14.2	1.9	13.7%	2.9%	13.2	1.7	14%	6%
<b>MSCI Japan</b>	12.3	1.0	11.5	8.2%	2.6%	16.8	1.3	8.5%	1.7%	13.6	1.1	-9%	-9%
<b>MSCI USA</b>	16.8	2.6	8.3	15.3%	2.3%	15.2	2.3	15.5%	2.1%	14.3	2.2	18%	18%
<b>MSCI Australia</b>	15.4	1.7	6.9	10.8%	4.8%	13.9	2.0	14.4%	4.7%	13.4	1.8	15%	-6%

Note : Priced as of close of 12<sup>th</sup> of July 2016  
 Source: MSCI, Thomson, Macquarie Research, July 2016

Fig 34 MQ-Asia ex JP – Country Allocation tilts (%)



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	AU/NZ	Asia	RSA	USA	CA	EUR	
Outperform	45.17%	56.00%	36.36%	43.16%	63.39%	45.91%	(for global coverage by Macquarie, 6.27% of stocks followed are investment banking clients)
Neutral	36.21%	28.59%	40.26%	50.38%	29.46%	36.96%	(for global coverage by Macquarie, 6.33% of stocks followed are investment banking clients)
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