In Focus: Markets as we see them

China's housing market – irrational exuberance?

18 November 2016

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'The sky is falling! The sky is falling!' (Chicken Little)

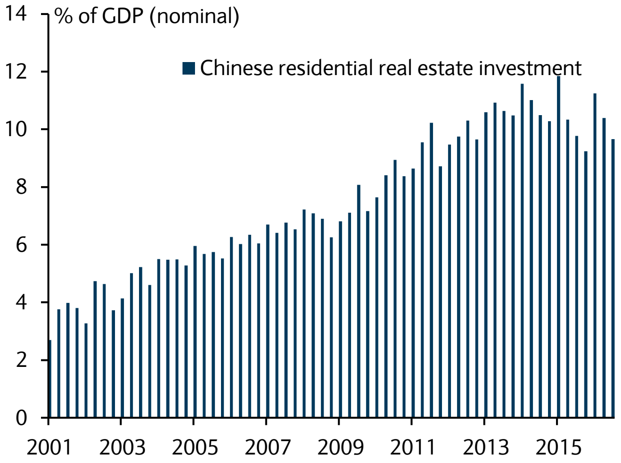
Froth

Real estate – especially the residential sector – has been a key driver of China's rapid growth in the past decade. Residential real estate investment grew rapidly as a share of GDP over the past decade (Figure 1), and it currently stands at a high level relative to other economies. Real estate has strong links to other sectors of the economy as well – together with construction, it makes up roughly 15% of total output (Figure 2). China's property market is also unique in its unusually abbreviated cycles, having undergone almost four full cycles over the past decade (Figure 3). In other economies, we would expect to see one, or even half a cycle, in this time period (Figure 4). Following our China update in *Compass Q4 2016*, housing price growth has continued to accelerate despite the peak in residential construction growth (Figure 5). This upturn is particularly pronounced in the Tier 1 cities – Beijing, Shanghai, Guangzhou and Shenzhen – leading some to call a housing bubble.

Spot the bubble

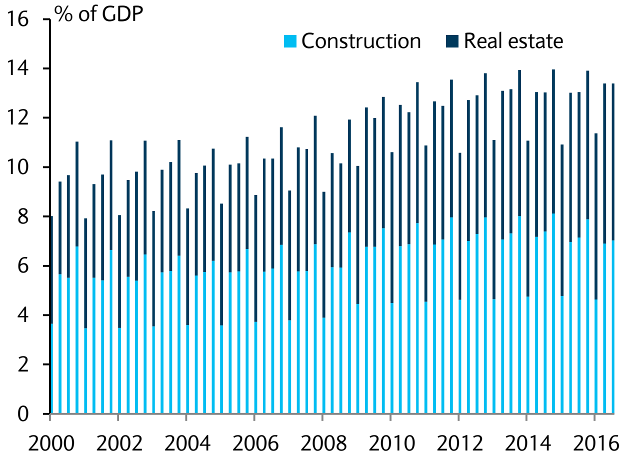
Spotting bubbles is notoriously difficult; with the Chinese property market no exception. Admittedly, the term "bubble" is often misused; by its purest definition, a bubble is a phenomenon whereby excessive expectations of future price increases lead asset prices to become elevated well above their fundamental values[1]. Just

Figure 1: Residential real estate investment as % of GDP



Source: Datastream, Barclays

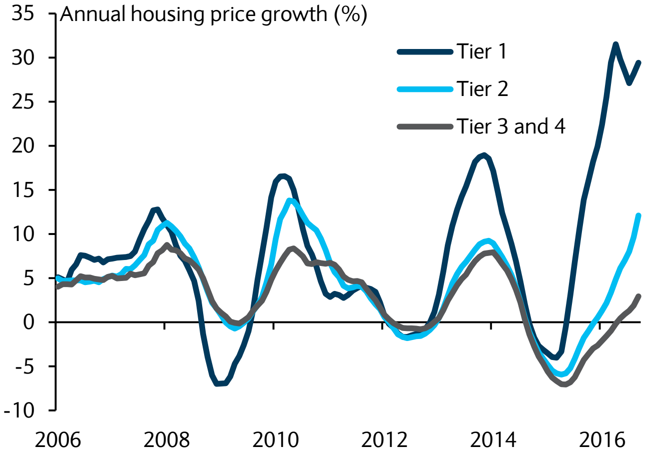
Figure 2: Construction and real estate as % of GDP



Source: Datastream, Barclays

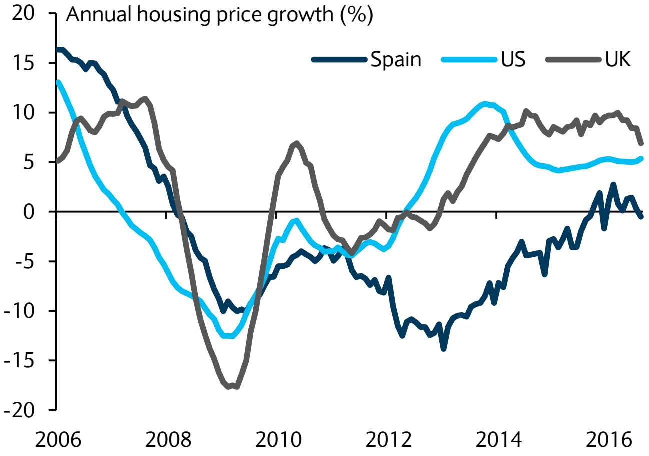
[1] *Speculative Asset Prices, Nobel Prize Lecture – Shiller, Dec 2013*

Figure 3: House price inflation - China



Source: Datastream, Barclays

Figure 4: House price inflation – developed economies



Source: Datastream, Barclays

because housing prices are rising rapidly, it doesn't mean that a bubble exists – the price increases must be significantly out of step with the fundamental values.

How do you know if housing price increases are soundly underpinned by fundamental values? In the past, econometric models were used to reproduce housing prices based on fundamental variables such as income and population growth. Such models had some success in identifying the 2000s US housing bubble[2]. Unfortunately, repeating a similar econometric analysis for the Chinese housing market is challenging due to data limitations, both in terms of quality and quantity. Private housing markets did not exist before the late 1990s, so there is only a short time series over which variations in prices and quantities across markets can be examined. Therefore, alternative methods are needed to judge the risk of a Chinese housing bubble. One intuitive method is to use housing inventories as a rough gauge of supply/demand imbalances. So far, housing inventories within the Tier 1 cities are still stable despite the rapid price increases (Figure 6 and 7). This is corroborated by more advanced academic research, which also suggests that there aren't any significant supply/demand imbalances within those cities[3].

China's housing price boom was accompanied by equally spectacular growth in households' disposable income

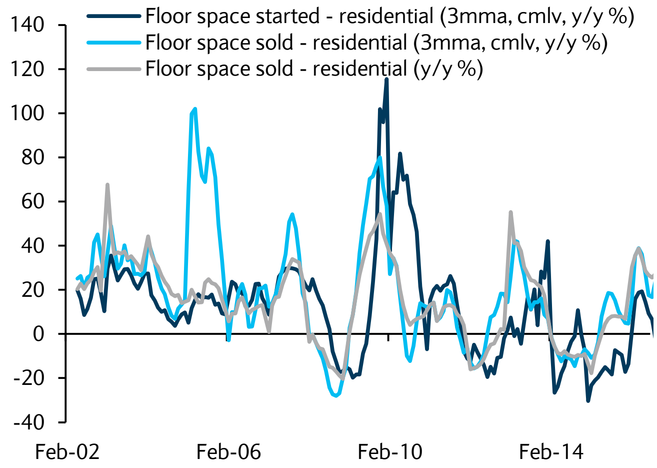
Another way to test for a housing bubble is to look at fundamental valuations such as price-to-income and price-to-rent ratios. Based on these, the Chinese housing market does look expensive. According to Wu, Gyourko and Deng (2016), price-to-income ratios for the Tier 1 cities currently lie around 10 times (x). To provide some perspective, price-to-income ratios peaked at 4.8x during the height of the US housing bubble[4]. Meanwhile, price-to-rent ratios in the Tier 1 cities currently lie between 50-40x. During the US housing bubble, they "only" peaked at around 30x[5].

Confounders

At the same time, relative valuations must be interpreted with caution – saying that Chinese housing valuations must be in line with those of the US is a case of apples and oranges. The very high growth rates of Chinese house prices need to be viewed in context. China's house price boom was accompanied by equally spectacular growth in households' disposable income. This joint presence of enormous house price appreciation and income growth contrasts the past housing bubbles in developed economies such as the US and Japan. Even during the Japanese housing bubble of the late 1980s, Japan was already growing at a more modest rate than that still enjoyed by China.

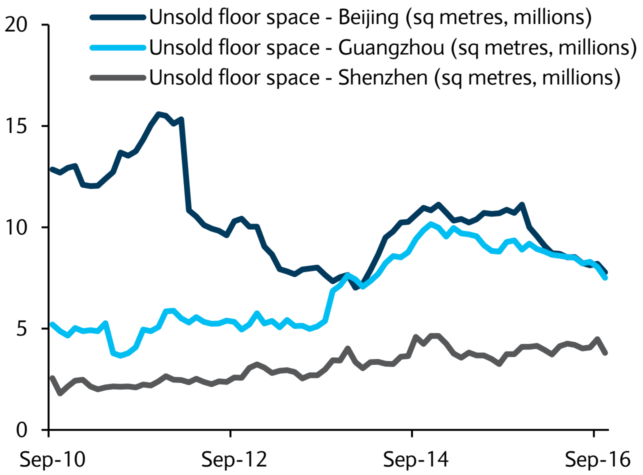
[2] *Is there a bubble in the housing market? – Case and Shiller, 2004*
[3] *Evaluating the Risk of Chinese Housing Markets: What We Know and What We Need to Know – Wu, Gyourko and Deng, Mar 2016*
[4] *How to Worry About House Prices – Freddie Mac, May 2016*
[5] *Why the housing recovery is over, in four charts – Fortune, Jul 2014*

Figure 5: Real estate construction and transactions



Source: Datastream, Barclays

Figure 6: Unsold floor space – Tier 1



Source: Datastream, Barclays

Besides that, financial repression might also mean that Chinese housing valuations are, for the moment, structurally higher relative to developed economies. Chinese households have high savings rates, but few avenues to invest their cash due to capital controls. Faced with this constrained investment set, it has been common for households to treat housing as an alternative investment vehicle, which also helps explain their willingness to pay relatively dearly for it.

Finally, there is apparently evidence that high and rising prices are partly caused by local government intervention. Some economists have claimed that Chinese housing isn't suffering from a bubble, but a severe fundamental imbalance between land supply and demand[6]. Smaller cities have plenty of land for building but shrinking populations. Big cities, where people actually want to live and work, are sitting on large land banks but releasing only small plots. The obvious result has been soaring home prices.

So, we know it's difficult to tell whether the Chinese housing market is experiencing a bubble. But assuming that housing prices crash anyway, what are the likely implications of a housing price crash on the domestic economy?

Chinese households aren't highly leveraged, and residential properties are typically purchased with significant down payments

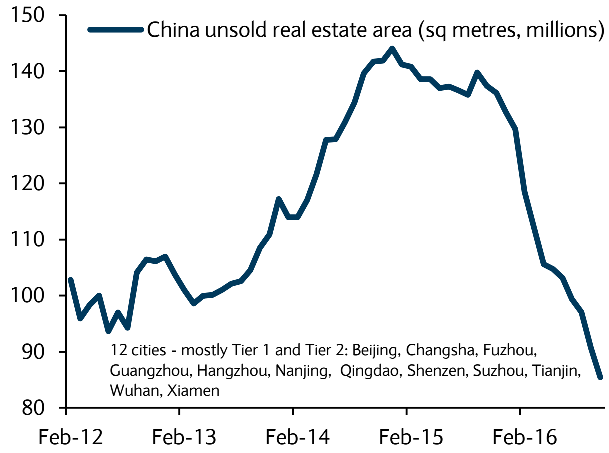
Implications of a crash

Given that residential investment and construction make up such a large proportion of GDP, a property slowdown would most likely hamper domestic investment. Understanding the extent to which a house price crash would affect consumption is more difficult. On one hand, housing assets make up the majority of Chinese household wealth – around 70%[7]. This is higher than that held by US and UK households during the 2000s, which stood around 40% and 60% respectively[8]. All things constant, this suggests that Chinese consumption should be more sensitive to housing prices. Curiously however, during the 2000s households in Japan and Italy, with higher shares of housing assets as a proportion of household wealth, were actually less sensitive to their respective housing price crashes. One explanation is that households in Italy and Japan have a lower ability to borrow against housing wealth due to less developed mortgage markets[9]. Therefore, housing leverage is lower, and homeowners are faced with lower liquidity constraints to consumption as their housing wealth collapsed, compared to their Anglo-Saxon counterparts[10].

Currently, Chinese households aren't highly leveraged (Figure 8), and residential properties are typically purchased with significant down payments. The minimum down payment is

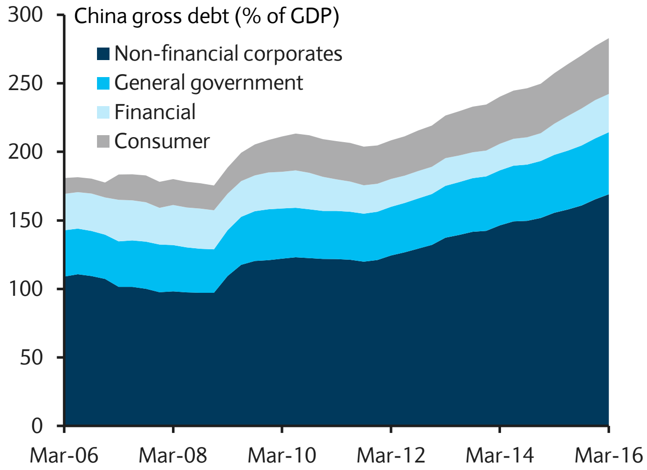
[6] *When a bubble is not a bubble – The Economist, Oct 2016*
[7] *Household Wealth in China – Xie and Jin, 2015*
[8] *Households' Wealth Composition Across OECD Countries and Financial Risks Borne by Households – Ynesta, 2008*
[9] *Housing Markets and the Financial Crisis of 2007-2009: Lessons for the Future – Duca, Muellbauer, Murphy, Apr 2010*
[10] *Why the Housing Bubble Tanked the Economy And the Tech Bubble Didn't – FiveThirtyEight, May 2014*

Figure 7: Unsold floor space – Tier 1 and Tier 2



Source: Datastream, Barclays

Figure 8: Gross debt as % of GDP



Source: Datastream, Barclays

currently 20%, and median down payments lie between 40%-50% in the Tier 1 cities[11]. This is in contrast to the US housing bubble, where the median down payment was reportedly as low as 2%[12]. Low household leverage and high deposit-to-loan ratios in the financial system implies that a US-style subprime credit crisis is less of a concern for China.

Basing investment decisions on timing the housing market is difficult

Investment conclusion

Ultimately, much remains unknown regarding the Chinese housing market – there is simply too little data and historical precedent to take a conclusive stand on whether the sector is experiencing a bubble. While a house price crash would likely lead to a growth slowdown, the chances of it turning into a full-scale US-style subprime crisis seems unlikely to us, as reasoned above. Despite the housing market being a classic 'known unknown', basing investment decisions on timing it is difficult to say the least – investors have been shorting the Chinese housing market for years, with little to show for it. Ultimately, we still recommend investing based on what we know – that growth is the norm, and diversification remains the best hedge against any potential Chinese housing bust.

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[11] *Demystifying the Chinese Housing Boom – Fang, Gu, Xiong and Zhou, Apr 2015*
[12] *43% of first-time home buyers put no money down – USA Today, Jan 2006*

Market calls – summary

Macro economy summary

- The world economy continues to defy its many doubters, appearing increasingly less vulnerable now that the effects of lower oil prices are washing through the system. Inflation expectations continue to harden amidst conjecture on the next US administration's potentially inflationary agenda. The more visible pick up in nominal wages suggest that underlying inflationary pressure is already on an upward trajectory.

- The post-Brexit global confidence slump feared by many has so far failed to materialise. Nonetheless, Bank of England agent surveys for business investment suggest that the horizon is darkening a little for the UK economy. We retain our view that Brexit will have a more or less localised effect, with any potential headwind to UK activity slowing but not upending the European economic recovery.

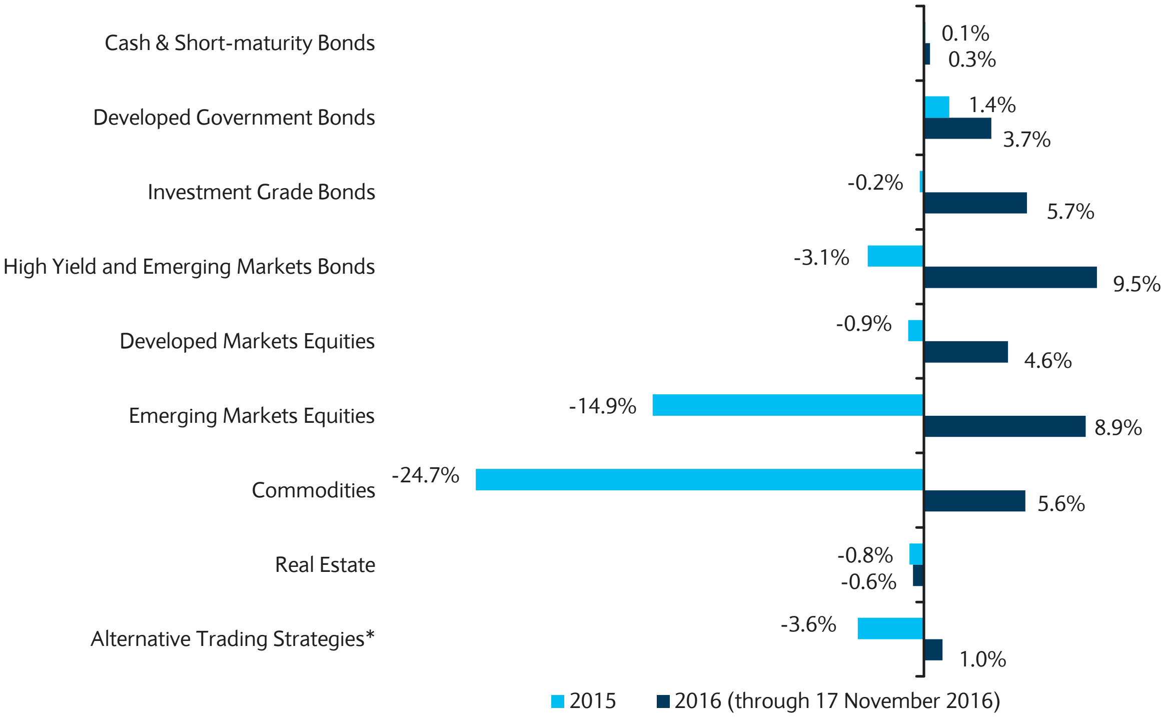
- For now, China remains lower down our global list of concerns. Traditional heavy industries are struggling and private sector investment remains weak, however we continue to argue that China's slow down is likely to remain orderly for the time being.

- More broadly, we believe the world economy will continue to grow at above stall speed and see the cycle end as a relatively distant prospect. The political backdrop is set to be especially noisy as we go into the end of the year, but investors will be best served by tuning much of this out and focusing on the above described fundamentals in our view.

Investment conclusions

1. Strategically: corporate securities preferred to government, and stocks to bonds
   - There remain unfulfilled economic opportunities to exploit for the corporate sector in our view. Bonds look expensive, with positive real returns likely hard to achieve even if inflationary pressures remain benign.
2. Tactically: we remain overweight developed equities
   - Continuing economic growth, as well as the reduced influence of commodity earnings may see quoted sector earnings surprise market expectations positively this year. Equity market valuations continue to look unremarkable.

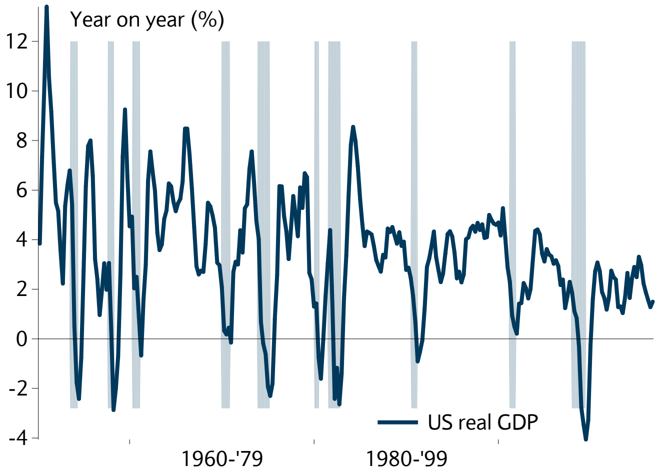
Total returns across key asset classes



*As of 16th November; Source: FactSet, Barclays. List of indices used: Cash & Short-Maturity Bonds: Barclays US T-Bills (USD); Developed Government Bonds: Barclays Global Treasury (USD Hgd); Investment Grade Bonds: Barclays Global Aggregate - Corporates (USD Hgd); High Yield & Emerging Market Bonds: 40% Barclays Global HY (USD Hgd), 30% Barclays EM Hard Currency Aggregate (USD Hgd), 30% Barclays EM Local Currency Government (USD); Developed Market Equities: MSCI World Net TR (USD); Emerging Market Equities: MSCI EM Net TR (USD); Commodities: Bloomberg Commodity TR (USD); Real Estate: FTSE EPRA/NAREIT Net TR (USD); ATS: HFRX Global Hedge Fund (USD).

Selected risks to our views

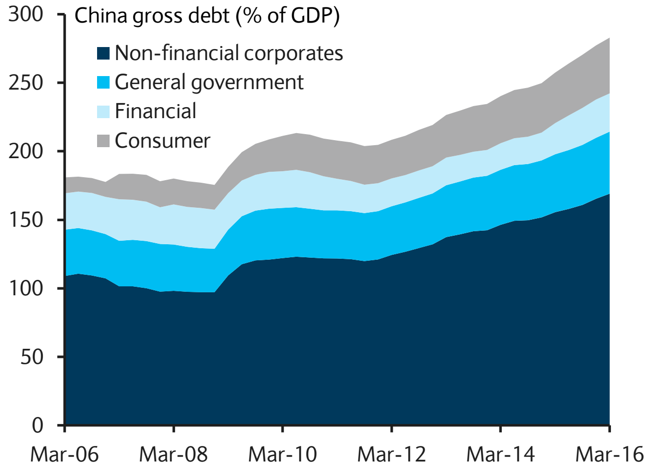
US recession?



Source: Datastream, Barclays

- A recession in the US poses the greatest risk to our investment outlook.
- The current US economic expansion is now in its eighth year, a year longer than the average post-War cycle. This has led many to call, somewhat mechanically, for an imminent recession.
- However, such claims are based on misguided notions about the fundamental drivers of the business cycle. Business cycles usually end because of some exogenous shock that causes firms and individuals to alter their planned expenditures and expectations of future incomes. They do not die of old age.
- So far, lead indicators for the US economy still indicate decent growth prospects for the US economy. In particular, trend readings in the ISM Manufacturing and Non-manufacturing indices are still hovering close to their expansion thresholds.

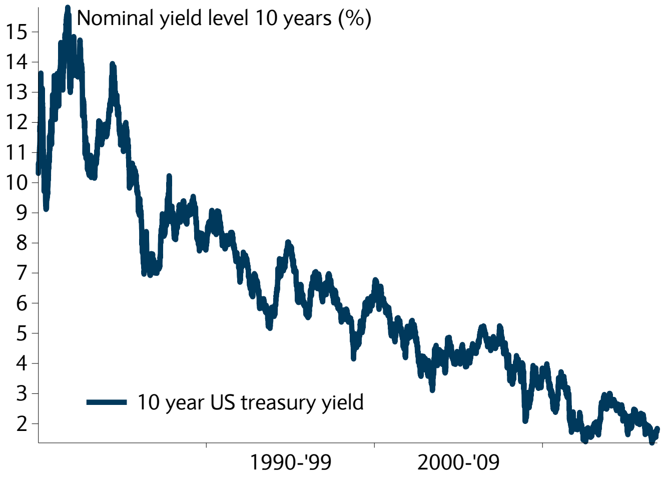
China hard landing?



Source: Datastream, Barclays

- Fears of a Chinese debt crisis have been lingering for some time. Overall debt ratios have soared over the past decade, the kind of surge that is historically followed by a financial crisis or an abrupt slowdown.
- However, the high levels of debt need to be viewed in context. China's high savings rate and a relatively undeveloped financial system mean that household deposits are disproportionately channelled into corporate debt rather than equity finance, thus artificially boosting debt levels. In essence, domestic Chinese entities are basically lending to one another.
- The financial system has high liquidity buffers, is less reliant on wholesale funding, and has the full backing of the central government. Such circumstances make it unlikely that China's debt will spark a systemic crisis in the near future. Still, such developments will need to be monitored closely.

A messy end of the bond bull market?



Source: Datastream, Barclays

- The multi decade long bond bull market remains more or less in place, driven by a cocktail of economic pessimism, low inflation and central bank easing. However, this poses significant downside risks to global capital markets should this bull market unwind chaotically.
- Government bond yields have indeed moved sharply higher since the summer, amidst recovering inflation expectations and fears of an inflationary policy agenda under President elect Trump.
- However, for the moment, central bank ownership and historic precedent suggest to us that the bond market will remain more or less orderly, even with the return of more inflation. However, this is certainly a risk worth keeping an eye on.

Asset class summary

We maintain a Strategic Asset Allocation for five risk profiles, based on our outlook for each asset class. Our Tactical Allocation Committee (TAC), made up of our senior investment strategists and portfolio managers, regularly assesses the need for tactical adjustments to those allocations, based on our shorter-term (three to six month) outlook. Here, we share our latest thinking on our key tactical tilts.

Developed Markets Equities: Overweight (changed 22 July 2016)

The prospects for global growth and inflation seem less materially underestimated than they were earlier in the year. However, we still see expectations having further to travel before they meet the underlying reality as we see it, something that should continue to help stocks to outperform bonds in coming quarters in our view. It is these prospects that are likely to continue to be most influential with regards to the performance of capital markets, rather than the ever-murky political backdrop. The prospects for US consumption remain well founded on a robust jobs backdrop, characterised by more visibly rising wages, which in turn is helping appetite for credit to continue to recover. The negative hit from oil prices on associated corporate earnings is fading as is the headwind to profits from the previous ascent of the US dollar. US operating earnings have now made it back into positive year on year territory at the now almost complete US Q3 earnings season, confounding those who believed the decline in profitability was terminal for this cycle.

Our favoured developed equity regions remain for the moment the US and Europe ex-UK

Within the developed world, our preferred markets remain the US, Europe ex UK and UK in roughly that order. For the US, we are not expecting further gains to come from multiple expansion, but from continuing earnings and dividend growth. For our overweight position in Continental European equities, much depends on the performance of the embattled banking sector where we expect a more helpful yield curve to continue to alleviate some of the more apocalyptic concerns. Our more positive outlook for oil prices is part of the reason that we have turned more positive on large cap UK equities. Perversely, they may also be a way for investors to insulate themselves from Brexit risks, with weaker sterling a positive for the large cap space, albeit predominantly a superficial one.

Emerging Markets Equities: Neutral

We moved our recommended tactical position in Emerging Markets Equities up to neutral in January. We are looking for a more visible turn in earnings momentum before adopting a positive tactical posture. The stabilisation in China's growth indicators has helped to stabilise sentiment towards the asset class, as has the related brighter tone in the commodity complex. Alongside this, evidence continues to mount that the wider Asia ex-China business cycle is in the process of forming a cyclical bottom.

Within Emerging Markets Equities, Asia remains our preferred region, with Korea, Taiwan and China (offshore) our highest conviction country bets on a strategic basis. The expected pick-up in global trade is central to this view. We continue to watch Korean exports for any signs of this[13]. We will obviously be watching the assembly of President-elect Trump's new administration for signs of his commitment to follow through with his various protectionist campaign trail threats.

Cash & Short-Maturity Bonds: Neutral (increased 13 October 2016)

Given ongoing market volatility, cash continues to play a pivotal portfolio insulation role. While the fixed income universe remains unattractive at current extreme valuations, cash offers a source of funds to invest into other asset classes when appropriate opportunities arise. Evidence of some returning inflation in the US obviously needs to be watched very carefully.

[13] *In Focus – The End of the World, 15th April 2016*

Some returning inflation is central to our current tactical posture

Developed Government Bonds: Underweight (decreased 13 October 2016)

Nominal yields offered by large chunks of the government bond universe are still negligible, even after the fairly dramatic sell off seen since the summer. Investors will likely have to work hard to make real returns from these levels over the next several years. Our view remains that such valuations underestimate the underlying inflationary pressures within the US economy in particular, something that incoming inflation data pay some testament to. The threat of a more fiscally expansive US administration has accelerated the yield retracement. For us, the level of (returns insensitive) central bank ownership probably suggests that the bond market will remain more or less orderly and may lag a pick-up in inflation. Nonetheless, our continuing small strategic and tactical allocation to the area suggests that higher real returns lie elsewhere.

Investment Grade Bonds: Underweight

The spread of investment grade credit over government bond yields has held more or less firm amidst the above mentioned correction; however this has still left investors nursing some short term bruises particularly within the utilities space. Nominal yields in high quality corporate credit remain low in absolute terms and may make the job of those trying to make positive real returns difficult.

High Yield & Emerging Markets Bonds: Overweight (increased 13 October)

Earlier in the summer we moved from a tactical underweight to overweight position in High Yield and Emerging Markets Bonds by adding to Global High Yield. This was funded by moving from a tactical overweight to neutral position in Cash & Short-Maturity Bonds. Given our more sanguine take on the various risks to global growth and inflation, yields on junk credit look attractive on a risk-reward basis. We have more recently neutralised our earlier underweight position in Local Currency Emerging Market Bonds, again using Cash & Short Maturity bonds.

Commodities: Neutral (Increased 13 May 2016)

We closed our long-held underweight in the commodity complex in May. US monetary normalisation will likely provide a headwind, but the stabilisation in Chinese growth looks sufficient to offset this for the moment. Although the prospects for greater US infrastructure spending have increased a little in the wake of the US elections, we would still take some of the more grandiose claims with a pinch of salt, just as we would tread carefully around the recent related spike in industrial metals prices.

Investors are likely best served by tilting their commodity exposure towards oil and away from gold where possible, with the latter still particularly vulnerable to further US interest rate rises. We see oil prices continuing to drift higher over the coming 12 – 18 months as the market's worst fears on China fail to materialise and a smaller than suspected surplus is worked through.

Real Estate: Neutral

Recent volatility has served as a timely reminder of the importance of maintaining a diversified portfolio with the ability to weather a number of market environments, and we continue to encourage clients to ensure that they are fully allocated to Real Estate.

Alternative Trading Strategies: Underweight (decreased 13 May)

We shifted our previous tactical underweight in Commodities to Alternative Trading Strategies (ATS). This is primarily a function of the difference in volatilities for the two asset classes. There is less risk being underweight the lower volatility ATS in the current market environment in our opinion. Alongside this, regulation and lower leverage leave this diversifying asset class without much tactical appeal at the moment.

Equities

		Total Return Performance			Global Market Capitalisation (%)	EPS growth (%)		P/E ratio (x)			
MSCI indices	Yield	1 Week	YTD	5Yr Ann.		2016	2017	2016	2017	LTM[1]	10 Year Ave. LTM[1]
Developed markets	2.6	0.4	4.6	10.2	89.5	0.7	12.2	17.6	15.7	17.6	15.1
US	2.1	1.0	8.3	14.1	54.0	1.5	11.8	18.8	16.8	18.8	15.9
Europe ex UK	3.4	-1.6	-5.6	6.4	14.2	-0.8	11.9	15.8	14.1	15.7	13.7
UK	4.1	-0.8	-4.5	3.3	5.9	-5.5	18.9	17.0	14.3	16.8	12.6
Japan	2.2	1.0	2.3	8.2	8.0	11.9	7.9	14.3	13.3	14.9	n/m
Asia ex Japan	2.5	-3.4	5.6	4.2	9.0	1.6	12.4	14.1	12.6	14.2	13.8
Emerging markets	2.5	-3.2	8.9	0.1	10.5	7.4	12.9	13.7	12.1	13.8	12.6

[1] LTM = Last Twelve Months, i.e. trailing. Source: FactSet, Datastream, Barclays

Developed markets – sectors

		Total Return Performance			Global Market Capitalisation (%)	EPS growth (%)		P/E ratio (x)			
MSCI indices	Yield	1 Week	YTD	5Yr Ann.		2016	2017	2016	2017	LTM[1]	10 Year Ave. LTM[1]
Developed markets	2.6	0.4	4.6	10.2	89.5	0.7	12.2	17.6	15.7	17.6	15.1
Energy	3.7	-0.2	17.4	-0.4	6.1	-52.8	153.7	58.9	23.2	55.6	50.1
Materials	2.2	-1.8	19.2	1.6	4.5	-6.3	21.4	20.1	16.6	19.6	17.8
Industrials	2.4	-0.3	10.8	11.4	10.1	10.6	7.4	17.5	16.3	18.0	17.1
Cons. Discretionary	2.0	1.9	1.1	14.3	11.2	8.0	11.7	17.2	15.4	17.4	20.7
Consumer Staples	2.6	-0.3	-1.0	10.0	8.8	4.4	9.7	21.1	19.3	20.4	18.4
Health Care	2.1	-1.6	-5.7	14.9	11.1	6.8	8.0	16.3	15.1	16.3	19.0
Financials	3.3	1.8	7.5	12.6	15.9	-4.0	9.0	12.7	11.7	13.1	n/m
IT	1.5	1.6	10.2	14.1	13.3	3.1	12.3	18.8	16.8	18.3	20.2
Telecom. Services	4.3	0.2	-1.5	6.9	2.9	11.8	2.7	14.1	13.7	14.2	15.6
Utilities	3.8	-0.6	0.8	4.8	2.8	-2.4	2.2	16.0	15.6	15.4	16.8

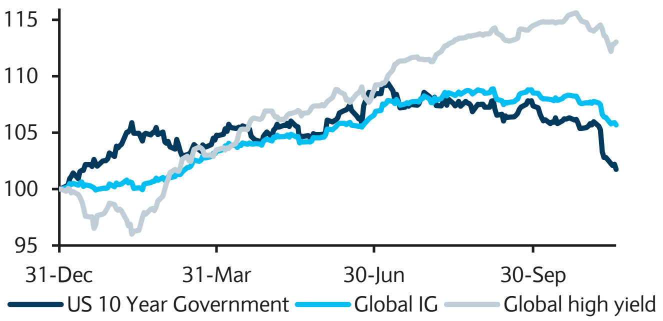
[1] LTM = Last Twelve Months, i.e. trailing. Source: FactSet, Datastream, Barclays

Fixed income

		Total Return Performance		
Index	Yield	1 Week	YTD	5Yr Ann.
Global inv. Grade	2.7	-0.7	5.7	4.9
Financials	2.5	-0.5	4.1	5.7
Industrials	2.8	-0.8	6.6	4.1
Utilities	2.8	-0.7	6.5	5.1
High yield global	6.4	-0.5	13.0	8.2
US	6.7	-0.2	14.3	7.2
Europe	4.5	-0.6	8.1	10.7
US 10Y	2.3	-1.0	1.7	2.1
Euro 10Y	0.2	0.0	5.0	5.3
UK 10Y	1.4	-0.4	7.6	4.6

Performance represents local currency/USD hedged returns.

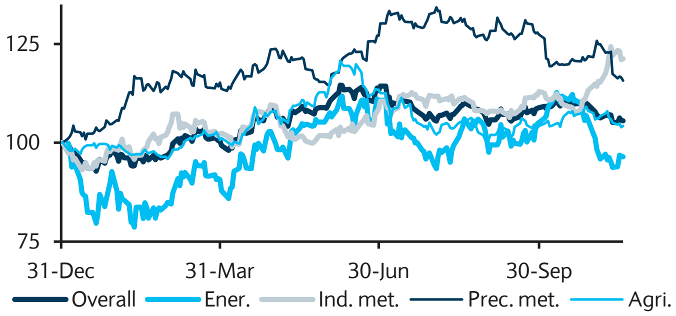
Key Fixed Income Indices (31-Dec-15=100, USD Hedged)



Commodities

		Total Return Performance		
DJ-UBS	Price Level	1 Week	YTD	5Yr Ann.
Energy		1.4	-3.5	-20.2
Brent crude	44.73 $/bbl	1.4	6.8	-19.0
Industrial metals		-2.4	21.3	-6.6
Copper	5,485 $/tonne	-2.3	15.5	-6.9
Precious metals		-5.9	15.8	-8.7
Gold	1228.0 $/oz	-3.9	14.0	-7.2
Agriculture		-1.6	4.2	-6.3
Corn	3.25 $/bushel	-0.6	-10.4	-11.6
Commodities		-1.3	5.6	-10.6

Key Commodity Indices (31-Dec-15=100, USD)



Source for all figures on this page: FactSet, Datastream, Barclays.
All data as of close of business (COB) 17th November and in USD unless stated otherwise – see following page for more performance figures.

Performance

Equities

	Total Return Performance													
	QTD	YTD	1 Year	2 Yr Ann.	3 Yr Ann.	5 Yr Ann.	12m to 17.11.15	12m to 17.11.14	12m to 17.11.13	12m to 17.11.12	2015	2014	2013	2012	2011
Developed markets	-0.9	4.6	4.0	1.8	3.8	10.2	-0.4	7.8	32.1	10.3	-0.9	4.9	26.7	15.8	-5.5
US	0.9	8.3	8.1	4.9	8.2	14.1	1.9	15.0	34.5	13.5	0.7	12.7	31.8	15.3	1.4
Europe ex UK	-5.2	-5.6	-6.7	-3.7	-3.1	6.4	-0.6	-1.8	37.2	8.9	-0.6	-6.5	27.6	21.3	-15.3
UK	-5.3	-4.5	-7.9	-7.0	-4.6	3.3	-6.1	0.4	25.6	7.8	-7.6	-5.4	20.7	15.3	-2.6
Japan	-0.2	2.3	2.2	5.8	2.7	8.2	9.5	-3.3	36.6	0.1	9.6	-4.0	27.2	8.2	-14.3
Asia ex Japan	-6.2	5.6	4.6	-2.3	0.6	4.2	-8.8	6.6	10.0	9.6	-9.2	4.8	3.1	22.4	-17.3
Emerging markets	-6.1	8.9	5.2	-5.1	-3.3	0.1	-14.4	0.5	6.2	4.6	-14.9	-2.2	-2.6	18.2	-18.4

Developed markets – sectors

	Total Return Performance													
	QTD	YTD	1 Year	2 Yr Ann.	3 Yr Ann.	5 Yr Ann.	12m to 17.11.15	12m to 17.11.14	12m to 17.11.13	12m to 17.11.12	2015	2014	2013	2012	2011
Developed markets	-0.9	4.6	4.0	1.8	3.8	10.2	-0.4	7.8	32.1	10.3	-0.9	4.9	26.7	15.8	-5.5
Energy	-0.4	17.4	6.9	-8.5	-6.6	-0.4	-21.6	-2.8	21.8	-1.0	-22.8	-11.6	18.1	1.9	0.2
Materials	0.2	19.2	15.2	-0.6	-1.0	1.6	-14.3	-1.9	13.3	-1.3	-15.3	-5.1	3.4	11.3	-19.8
Industrials	0.3	10.8	9.4	4.3	4.3	11.4	-0.5	4.1	38.3	9.5	-2.1	0.4	32.1	16.0	-8.2
Cons. Discretionary	0.0	1.1	0.9	5.1	4.6	14.3	9.6	3.6	46.3	16.2	5.5	3.9	39.2	24.3	-4.7
Consumer Staples	-8.1	-1.0	0.9	2.6	4.2	10.0	4.3	7.5	26.0	13.0	6.4	7.3	21.3	13.4	8.6
Health Care	-4.3	-5.7	-3.8	0.4	6.8	14.9	4.8	20.8	38.8	18.6	6.6	18.1	36.3	17.5	9.5
Financials	9.5	7.5	6.5	2.0	3.2	12.6	-2.3	5.5	36.0	21.0	-3.4	3.2	27.3	29.4	-18.5
IT	-1.0	10.2	9.9	8.1	12.2	14.1	6.2	21.0	29.5	5.8	4.8	16.1	28.7	13.3	-2.5
Telecom. Services	-8.2	-1.5	-1.9	-1.7	0.6	6.9	-1.4	5.3	33.2	3.2	2.5	-1.9	31.2	6.4	0.8
Utilities	-7.8	0.8	2.3	-2.1	2.4	4.8	-6.3	11.8	19.9	-1.5	-6.6	15.3	12.6	1.8	-3.3

Fixed income & Cash

	Total Return Performance													
	QTD	YTD	1 Year	2 Yr Ann.	3 Yr Ann.	5 Yr Ann.	12m to 17.11.15	12m to 17.11.14	12m to 17.11.13	12m to 17.11.12	2015	2014	2013	2012	2011
Cash & short-mat. Bonds	0.0	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Developed gov. Bonds	-2.7	3.7	4.0	3.4	4.2	3.8	2.8	5.8	0.8	5.7	1.4	8.1	0.1	4.5	5.5
Investment grade	-2.6	5.7	5.4	3.2	4.3	4.9	1.0	6.6	0.4	11.3	-0.2	7.6	0.1	10.9	4.8
Financials	-1.6	4.1	4.3	3.1	4.0	5.7	2.0	5.9	2.8	14.0	1.4	6.7	2.0	14.4	1.6
Industrials	-3.1	6.6	6.0	3.0	4.3	4.1	0.2	6.8	-1.3	9.2	-1.4	7.8	-1.4	8.2	8.0
Utilities	-3.7	6.5	6.6	3.8	5.5	5.1	1.1	9.1	-0.8	10.0	-0.6	11.3	-0.8	9.2	6.1
High yield global	-1.3	13.0	10.1	5.0	5.3	8.2	0.1	5.8	8.7	16.9	-0.7	2.6	6.5	19.2	3.6
US	-0.7	14.3	10.7	3.6	4.2	7.2	-2.9	5.4	9.5	14.4	-4.5	2.5	7.4	15.8	5.0
Europe	0.1	8.1	6.6	5.2	5.7	10.7	3.8	6.8	13.2	24.4	2.0	5.8	10.5	28.8	-2.5
HY&EM Bonds	-3.9	9.5	7.7	1.9	2.8	5.0	-3.6	4.7	2.8	14.2	-3.1	2.0	0.2	17.6	3.4
US 10Y	-5.3	1.7	2.0	2.3	3.7	2.1	2.7	6.4	-6.9	6.8	1.0	10.9	-7.6	4.3	16.9
Euro 10Y	-3.5	5.0	4.1	3.9	6.4	5.3	3.6	11.8	-0.4	7.7	0.2	16.7	-2.6	7.6	13.9
UK 10Y	-5.4	7.6	8.1	5.9	7.1	4.6	3.7	9.5	-4.7	6.8	0.8	15.6	-6.1	3.8	18.4

Performance represents local currency/USD hedged returns.

Commodities & other diversifying asset classes

	Total Return Performance													
	QTD	YTD	1 Year	2 Yr Ann.	3 Yr Ann.	5 Yr Ann.	12m to 17.11.15	12m to 17.11.14	12m to 17.11.13	12m to 17.11.12	2015	2014	2013	2012	2011
Energy	-8.2	-3.5	-15.8	-35.7	-27.3	-20.2	-50.9	-7.1	-6.1	-10.1	-38.9	-39.3	5.2	-9.4	-16.0
Brent crude	-8.3	6.8	-10.9	-35.2	-32.1	-19.0	-52.8	-25.6	6.7	4.5	-45.6	-47.6	7.2	7.6	16.8
Industrial metals	7.4	21.3	22.8	-9.1	-4.9	-6.6	-32.8	4.1	-12.0	-6.1	-26.9	-6.9	-13.6	0.7	-24.2
Copper	12.8	15.5	16.8	-10.2	-8.3	-6.9	-31.0	-4.4	-9.8	0.5	-25.1	-16.6	-8.8	5.0	-24.4
Precious metals	-9.1	15.8	14.3	0.9	-3.7	-8.7	-10.9	-12.3	-28.4	-0.5	-11.5	-6.7	-30.8	6.3	4.6
Gold	-7.6	14.0	13.1	0.8	-2.3	-7.2	-10.2	-8.3	-25.4	-1.2	-10.9	-1.7	-28.7	6.1	9.6
Agriculture	0.0	4.2	4.2	-7.2	-7.6	-6.3	-17.4	-8.4	-14.9	7.9	-15.6	-9.2	-14.3	4.0	-14.4
Corn	1.3	-10.4	-12.6	-14.2	-14.9	-11.6	-15.8	-16.4	-32.1	29.2	-19.2	-13.3	-30.3	19.0	1.1
Commodities	-3.0	5.6	1.5	-15.9	-12.3	-10.6	-30.4	-4.6	-12.5	-3.0	-24.7	-17.0	-9.5	-1.1	-13.3
Real Estate	-9.8	-0.6	1.8	0.2	3.5	8.9	-1.4	10.4	13.9	21.4	-0.8	15.0	3.7	27.7	-6.5
ATS	-0.3	1.0	-0.3	-1.4	-0.7	1.2	-2.5	0.5	7.4	0.9	-3.6	-0.6	6.7	3.5	-8.9

Source for all figures on this page: FactSet, Datastream, Barclays.

All data as of close of business (COB) 17th November and in USD unless stated otherwise.

Barclays key macroeconomic projections

Figure 1: Real GDP and consumer prices (% y-o-y)

	Real GDP			Consumer prices		
	2016F	2017F	2018F	2016F	2017F	2018F
Global	3.1	3.5	3.8	1.7	2.3	2.5
Advanced	1.5	1.6	2.0	0.7	1.9	2.1
Emerging	4.3	4.8	5.1	3.2	3.0	3.1
United States	1.6	2.2	2.5	1.3	2.6	2.8
Euro area	1.6	1.2	↑ 1.6	0.2	1.2	1.4
Japan	0.6	1.1	0.7	-0.3	0.4	1.0
United Kingdom	2.0	0.5	1.5	0.6	2.4	2.1
China	6.7	6.3	6.1	2.0	2.2	↑ 2.3
Brazil	-3.6	↓ 0.5	1.8	8.8	5.9	5.9
India	7.6	7.9	8.0	5.1	4.8	↓ 5.3
Russia	-0.5	1.1	1.9	7.1	4.7	4.1

Source: Barclays Research, *Global Economics Weekly, 10 November 2016*

Note: Arrows appear next to numbers if current forecasts differ from previous week by 0.2pp or more. Weights used for real GDP are based on IMF PPP-based GDP (5yr centred moving averages). Weights used for consumer prices are based on IMF nominal GDP (5yr centred moving averages). Aggregates for CPI exclude Argentina and Venezuela. There can be no guarantees that these projections will be achieved.

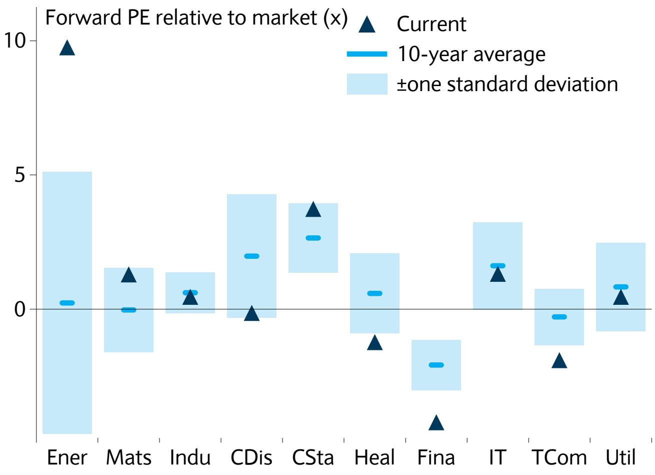
Wealth and Investment Management equity sector recommendations

Figure 1: Global sector strategy (% relative to GICS) – a zero indicates a neutral or GICS benchmark position

	US	Eu x UK	UK
Energy	1.5	1.5	1.5
Materials	0	0	0
Industrials	1.5	1.5	1.5
Consumer Discretionary	0	0	0
Consumer Staples	-3.0	-3.0	-3.0
Health Care	-1.5	1.5	1.5
Financials	1.5	1.5	1.5
Information Technology	1.5	0	0
Real Estate	0	0	0
Telecommunication Services	0	-1.5	-1.5
Utilities	-1.5	-1.5	-1.5

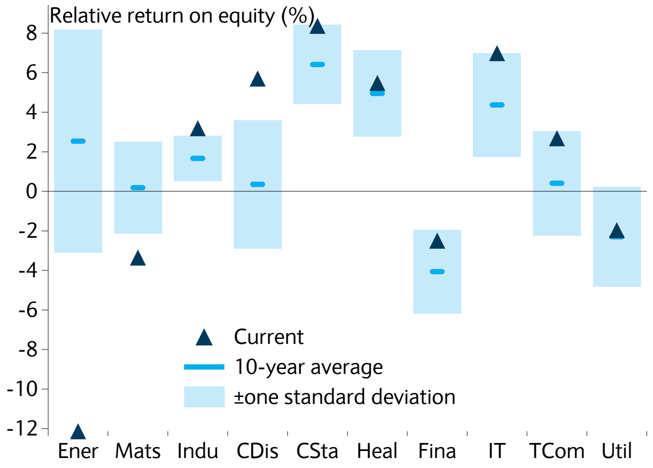
Source: Barclays

Figure 2: MSCI developed markets – sector forward PE ratios



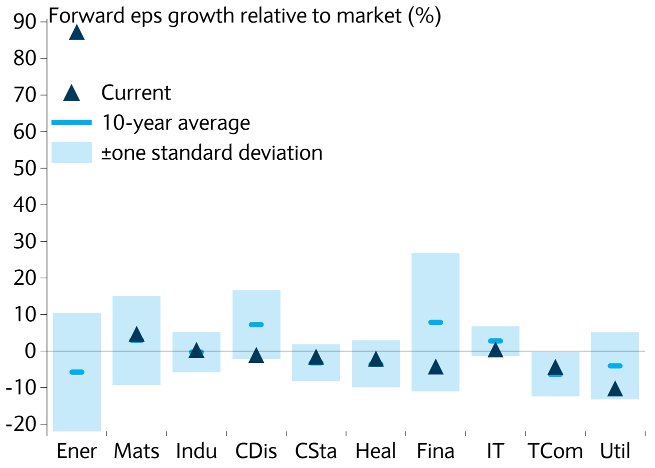
Source: MSCI, FactSet, Barclays

Figure 3: MSCI developed markets - sector return on equity



Source: MSCI, FactSet, Barclays

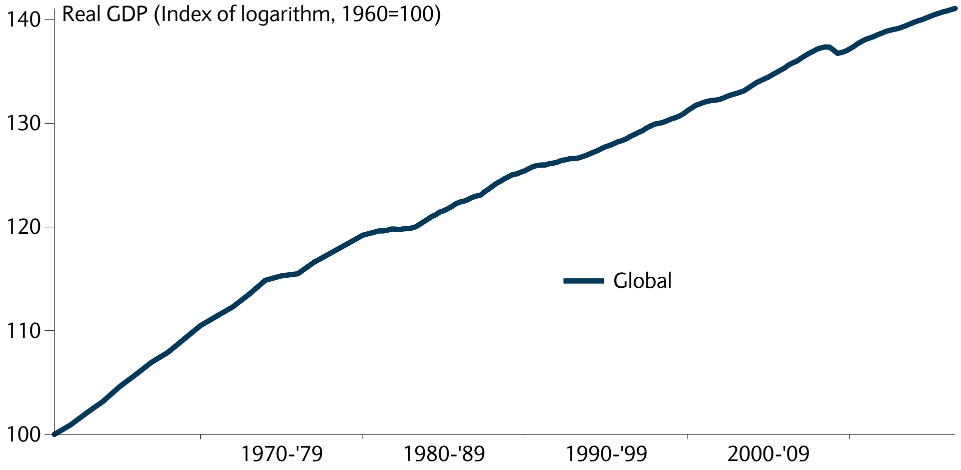
Figure 4: MSCI developed markets - sector forward EPS growth



Source: IBES, Datastream, Barclays

The case for investing

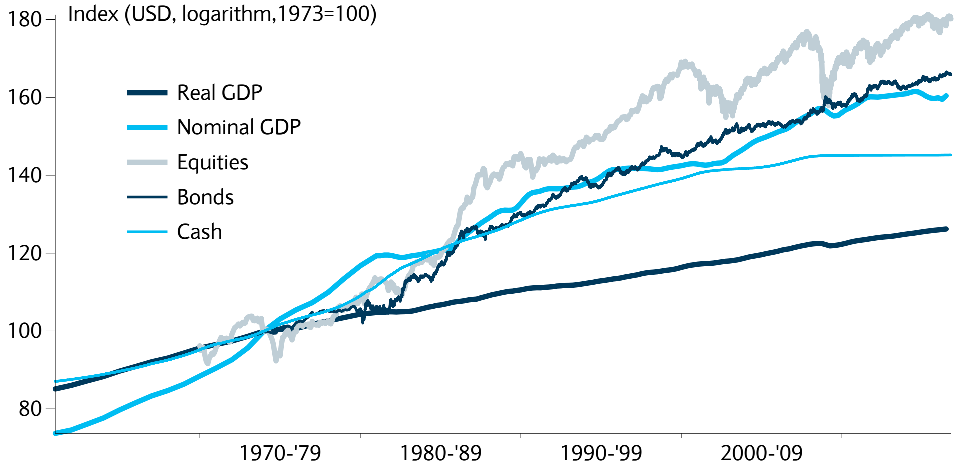
Global real GDP



Source: Datastream, Barclays

- Growth is the norm, not the exception.
- Most years, world output grows because of the simple interaction of new technology and the learning curve.
- The inference is that you have to find good reasons for betting against that trend and not with it, as has been the prevailing wisdom in the aftermath of the great financial crisis.

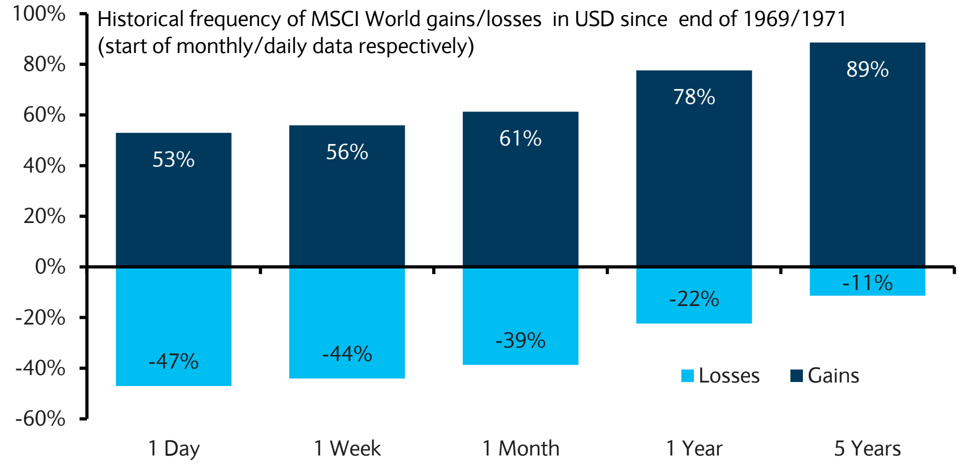
Growth of global GDP and asset classes



Source: Datastream, Barclays

- The future is of course unknowable. However, in addition to being able to suggest that it is more likely that the world will grow than not, we can also point to historic performance of the major asset classes relative to cash and both nominal and real GDP as an argument for both diversification and being invested in the first place.
- As our colleagues in Behavioural Finance are regularly at pains to point out, it is not so much about timing the market but time in the market.

Historical frequency of equity market gains/losses

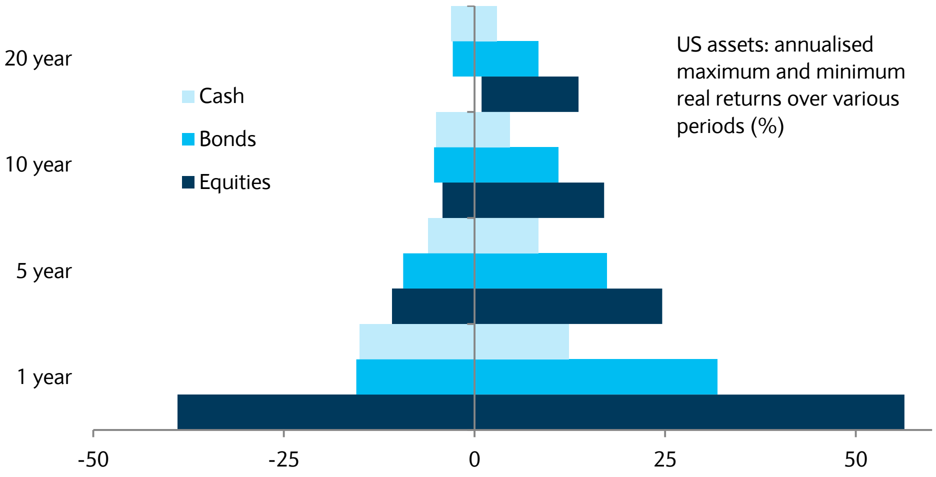


Source: Datastream, Barclays

- Historically, equity market returns have been positive a lot more than 50% of the time over the long term.
- Although equity markets are not the only source of investor returns, it is stocks that are going to provide the bulk of the long-term returns to investment portfolios.
- This ultimately means that an investor looking to grow assets above inflation will likely have to accept an investment portfolio that will be reasonably correlated to equity markets over time.

The case for investing

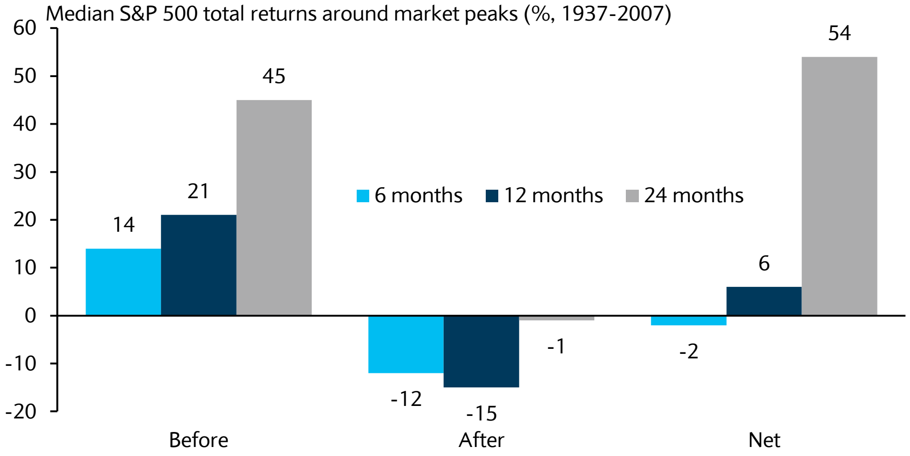
Minimum/maximum real return of US assets



Source: Datastream, Barclays

- Those able to buy and hold for longer periods may have a different perspective on the risks inherent in the major asset classes anyway.
- Deeper real annualised losses have come from bonds and cash when the holding period is extended to 10 years or more.
- The profile of real returns and losses is significantly more attractive for stocks over 10 and 20 year holding periods.

Median equity returns around market peaks



Source: BAML, Barclays

- Avoiding bear markets is an industry obsession. Understandably so – the work of Nobel laureate Daniel Kahneman and his colleague Amos Tversky tells us that 'losses loom larger than gains' for the average investor.
- However, the fact that most bear markets are preceded by a rush of blood that tends to outweigh the bloodletting that inevitably follows should temper how carefully we listen to the more persistent doomsayers.
- Being too early to call the end of the cycle tends to be more costly than missing the bear market altogether.

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Jersey Branch has its principal business address in Jersey at 13 Library Place, St Helier, Jersey JE4 8NE, Channel Islands. **Monaco** – Barclays Bank PLC – Monaco is a branch of Barclays Bank PLC with its offices in the Principality of Monaco at 31 Avenue de la Costa, MC 98000 Monaco – Tel. +377 93 15 35 35. Registered with the Monaco Chamber of Commerce and Industry under No° 68 S 01191. Registered VAT No° FR 40 00002674 9. **Nigeria** – Barclays offers wealth and investment management products and services to its clients through Barclays Bank PLC and its subsidiaries. Barclays Bank PLC is registered in England and authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Registered No.1026167. Registered Office: 1 Churchill Place, London E14 5HP. Barclays Group Representative Office (NIG) Ltd. Registered Company No: RC41757 and its mailing address is Barclays Group Representative Office (NIG) Ltd, Courier Department, 3rd Floor, 1 Churchill Place, London, E14 5HP **Portugal** – Barclays offers wealth and investment management products and services to its clients through Barclays Bank PLC and its subsidiary companies. Barclays Bank PLC is registered in England and authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Registered No. 1026167. Registered Office: 1 Churchill Place, London E14 5HP. Barclays Bank PLC activity in Portugal is supervised by Banco de Portugal (BoP) and Comissão de Mercado de Valores Mobiliários (CMVM). **Qatar** – Barclays offers wealth and investment management products and services to its clients through Barclays Bank PLC and its subsidiary companies. Barclays Bank PLC is registered in England and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Registered No. 1026167. Registered Office: 1 Churchill Place, London E14 5HP. Barclays Bank PLC in the Qatar Financial Centre (Registered No. 00018) is authorised by the Qatar Financial Centre Regulatory Authority. Barclays Bank PLC QFC Branch may only undertake the regulated activities that fall within the scope of its existing QFCRA authorisation. Principal place of business in Qatar: Qatar Financial Centre, Office 1002, 10th Floor, QFC Tower, Diplomatic Area, West Bay, PO Box 15891, Doha, Qatar. This information has been distributed by Barclays Bank PLC. Related financial products or services are only available to Business Customers as defined by the QFCRA. **Singapore and Hong Kong** – Barclays offers wealth and investment management products and services to its clients through Barclays Bank PLC and its subsidiaries. Barclays Bank PLC is registered and incorporated in England and authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Its members have limited liability. Registered No. 1026167. Registered Office: 1 Churchill Place, London E14 5HP. Barclays Bank PLC Singapore Branch is a licensed bank in Singapore and is regulated by the Monetary Authority of Singapore. Registered Address:10 Marina Boulevard, #24-01 Marina Bay Financial Centre Tower 2, Singapore 018983. Barclays Bank PLC Hong Kong Branch is registered with the Hong Kong Securities and Futures Commission (CE No. AAJ160) and is authorised and regulated by the Hong Kong Monetary Authority. Main business address in Hong Kong: 41/F Cheung Kong Center, 2 Queen's Road Central, Hong Kong. **Switzerland** – Barclays Bank (Suisse) SA is a Bank registered in Switzerland and regulated and supervised by FINMA. Registered No. CH-660.0.118.986-6. Registered Office: Chemin de Grange-Canal 18-20, P.O. Box 3941, 1211 Geneva 3, Switzerland. Registered branch: Beethovenstrasse 19, P.O. Box, 8027 Zurich. Registered VAT No. CHE-106.002.386. Barclays Bank (Suisse) SA is a subsidiary of Barclays Bank PLC registered in England, authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. It is registered under No. 1026167 and its registered office is 1 Churchill Place, London E14 5HP. **United Arab Emirates (Dubai)** – Barclays offers wealth and investment management products and services to its clients through Barclays Bank PLC and its subsidiary companies. Barclays Bank PLC is registered in England and authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Registered No. 1026167. Registered Office: 1 Churchill Place, London E14 5HP. Barclays Bank PLC in the Dubai International Financial Centre (Registered No. 0060) is regulated by the Dubai Financial Services Authority. Barclays Bank PLC DIFC Branch may only undertake the financial services activities that fall within the scope of its existing DFSA licence. Principal place of business: Wealth and investment management, Dubai International Financial Centre, The Gate Village Building No. 10, Level 6, PO Box 506674, Dubai, UAE. This information has been distributed by Barclays Bank PLC DIFC Branch. Related financial products or services are only available to Professional Clients as defined by the DFSA.