SOURCE

The Big Picture

Quarterly update

For professional investors only

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2017: market outlook

Forecasting is difficult at the best of times and the US election and Brexit have not helped. So, along with our central scenario we outline a set of possibilities for 2017, ranging from boom to bust and including supply-shock scenarios such as stagflation and benign deflation. We construct expected returns and optimal portfolios and assign a subjective probability to each outcome. We also outline our equity sector preferences. We expect the best returns to be earned on real estate and equities but an optimisation process highlights the attractiveness of cash and sovereign debt. We keep the faith with emerging markets.

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Multi-asset research

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Forecasting is difficult at the best of times and the US election and Brexit have not helped. So, along with our central scenario we outline a set of possibilities for 2017, ranging from boom to bust and including supply-shock scenarios such as stagflation and benign deflation. We construct expected returns and optimal portfolios and assign a subjective probability to each outcome. We also outline our equity sector preferences.

As our "central" scenario is one of continued low growth and low inflation (30% probability), it should be no surprise that we expect the best returns during 2017 to be achieved on equities and real estate. However, when putting together a multi-asset portfolio, those asset classes are penalised by their high volatility and high correlation with other assets: real estate is Overweighted within the Source Multi-Asset Portfolio (SMAP) but equities are reduced to a slight Underweighting. On the other hand, the low volatility and low correlation of cash and sovereign debt result in those assets being favoured (cash remains at the Maximum exposure allowed and sovereign debt is increased to Overweight). There is no room for high-yield within the SMAP and investment grade credit plays only a minor role (both are downgraded). We remain bearish on commodities and they remain Zero-weighted (both gold and industrial commodities). Within equities, we emphasise "value", banks, late cyclicals, healthcare and telecoms.

More broadly, as we move from scenarios that involve recession, such as "depression" (25% probability) and "stagflation" (5%) to those involving economic acceleration, such as "boom" (25%) or "benign deflation" (15%), our preferences switch from gold, government bonds and defensive sectors towards equity-like assets, cash, financials and cyclicals. Industrial commodities would be preferred in "stagflation" and "boom" scenarios but not in "depression" or "benign deflation". By the way, the US election result has not caused us to change the underlying scenarios but it has caused us to change the probabilities assigned to them (we have reduced the probability of the "central" scenario and boosted that of the extremes – "depression" and "boom").

A probability-weighted approach gives a broadly similar outcome to our "central" scenario; though expected returns are lower for most equity-like assets (we put a higher probability on positive outcomes but believe the amplitude of downside shocks would be greater). For example, the "central" S&P 500 target is 2100, while the probability weighted target is 1968, with a range from 900 ("depression") to 3100 ("boom").

Figure 1 gives a summary of our "central" scenario preferences: sovereign debt and cash are preferred, along with real estate. We mention certain equity regions (Europe and Japan) as the expected returns are high, with a preference for value stocks and banks. Though emerging market assets are currently under pressure as a result of the forthcoming Trump presidency, we suspect that during 2017 their massive long term fundamental advantages (healthy demographics, low debt burdens and attractive valuations) will see them rise again.

Figure 1 – Asset and sector preferences under the Source central scenario

	Asset categories	Equity sectors
Most favoured	Cash (USD)	Value stocks
	Equities: Europe, Japan	Banks
	Real estate: Global	Industrials
	Sovereign debt: EM	Telecoms
	USD, GBP	Healthcare
Least favoured	Gold	Growth stocks
	Industrial commodities	Utilities
	High yield	US: Oil & gas, technology
	EUR, CNY	Europe: autos, personal goods

Source: Source Research

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Figure 2 – Source Multi-Asset Portfolio (16/11/2016)

	Neutral	Policy Range		Allocation	Position vs Neutral	Hedged	Currency
Cash	**5%**	**0-10%**		**10%**			
Cash	2.5%			10%			
Gold	2.5%			0%			
Bonds	**45%**	**10-80%**	↑	**44%**			
Government	30%	10-50%	↑	40%			
US	10%		↑	18%			
Europe ex-UK (Eurozone)	8%		↑	10%			
UK	2%		↑	4%			
Japan	8%			4%			
Emerging Markets	2%			4%			
Corporate IG	10%	0-20%	↓	4%			
US Dollar	5%		↓	2%			
Euro	3%		↓	0%			
Sterling	1%		↑	2%			
Japanese Yen	1%			0%			
Corporate HY	5%	0-10%	↓	0%			
US Dollar	4%		↓	0%			
Euro	1%		↓	0%			
Equities	**45%**	**20-70%**	↓	**40%**			
US	25%		↓	12%			
Europe ex-UK	7%		↓	10%			
UK	4%		↑	6%			
Japan	4%		↓	6%			
Emerging Markets	5%			6%			
Real Estate	**3%**	**0-6%**	↑	**6%**			
US	1%			1%			
Europe ex-UK	1%		↑	2%			
UK	0.5%			0%			
Japan	0.5%			2%			
Emerging Markets	0%		↑	1%			
Commodities	**2%**	**0-4%**		**0%**			
Energy	1%			0%			
Industrial Metals	0.3%			0%			
Precious Metals	0.3%			0%			
Agriculture	0.3%			0%			
Total	**100%**			**100%**			

Currency Exposure (including effect of hedging)						
USD	49%		↓	37%		
EUR	21%		↓	24%		
GBP	8%		↑	13%		
JPY	14%		↓	13%		
EM	7%		↑	12%		
Total	**100%**			**100%**		

*This is a simulated portfolio. Cash is an equally weighted mix of USD, EUR,
GBP and JPY. See appendices for methodology and disclaimers.
Source: Source Research

Summary and conclusions

The outlook for 2017 has to some extent been clouded by the election of Donald Trump as President of the US. This has necessitated a re-think of the probabilities we assign to the five global scenarios that we consider. It has not, however, materially changed our conclusions.

Under our favoured "central" scenario we envisage continued moderate global GDP growth and inflation (3% for each). We believe this will be enough to allow two Fed rate hikes in the next 12 months but not enough to end the supportive policies of other central banks including the BOE, BOJ, ECB, PBOC and SNB. Political developments in the US, UK and Europe have the potential to alter the outlook and we allow for this when considering alternative scenarios.

The best returns under the "central" scenario are expected on equities and real estate (largely because the valuations on other asset groups are so stretched). Real estate is accorded a maximum allocation under our optimisation process. However, the projected return on equities is not enough to overcome the dual negatives of high volatility and high correlation with many other asset groups.

Conversely, the low volatility and low correlation of cash and government debt ensure they are allocated the maximum allowable (despite low expected returns). **Figure 3** shows a summary of the optimised allocations, with more detail available on pages 22-23 and in the appendices. **Figure 2** shows how this has impacted the Source Multi-Asset Portfolio (we have added to sovereign debt and real estate, while reducing equities and credit).

Figure 3 – Central scenario optimised allocations*

Source: Source Research
*See appendices for methodology and disclaimers.

The uncertainties brought by the election of Donald Trump have caused us to reduce the probability assigned to the central scenario to 30% (from 40%).

We consider a full range of possibilities around that central scenario: two that are driven by assumptions about demand and that suppose a linear relationship between growth and inflation ("depression" and "boom" scenarios) and two that consider the possibility of supply-shocks ("stagflation" and "benign deflation"). The election of Donald Trump has caused us to put more weight on both the depression and boom scenarios (both are now allocated 25% probabilities).

For each scenario we derive expected returns across a range of assets and regions and use them to build optimal portfolios. **Figure 4** illustrates the scenarios and outlines the favoured assets in each case.

As outlined in pages 18-27 and in the appendices, we make a full set of market forecasts for each scenario, including central bank actions, exchange rates, bond yields, credit spreads, default and recovery rates, dividend yield and dividend growth (for both equities and real estate) and commodity prices. For instance, the range of S&P 500 forecasts for end-2017 is 900 ("depression" scenario) to 3100 ("boom" scenario). Having assigned a probability to each of the five scenarios we are then able to calculate a probability weighted outcome (1968 in the case of the S&P 500).

Though we assign the highest probability to the central scenario (30%), the probabilities are now more evenly spread, reflecting the lower conviction with which we hold our views. For instance, the depression scenario (25%) of recession and deflation would become more likely if Donald Trump implements his anti-trade ideas but the same would apply to the boom scenario (25%) of high growth and high inflation if he successfully implements tax cuts and a meaningful fiscal boost and that this encourages more active fiscal policies around the world. Stagflation seems a remote possibility at the global level (5% probability), given the weakness of commodity prices over recent years, though countries such as Brazil and Russia have recently had their version, while the UK may be heading for a mild bout. We think there is more chance (15%) of benign deflation, whereby low commodity prices boost real incomes and spending in commodity consuming countries.

In all cases it must be remembered that the time horizon is 2017, which limits the extent to which economic outcomes can vary from current settings. It is our presumption that a negative scenario could develop more rapidly than a positive one (the economic crisis of 2008 unfolded very quickly), hence the downside scenarios are more severe than those on the upside, even if the probabilities are similar.

Figure 4 – Five scenarios for 2017 and favoured assets
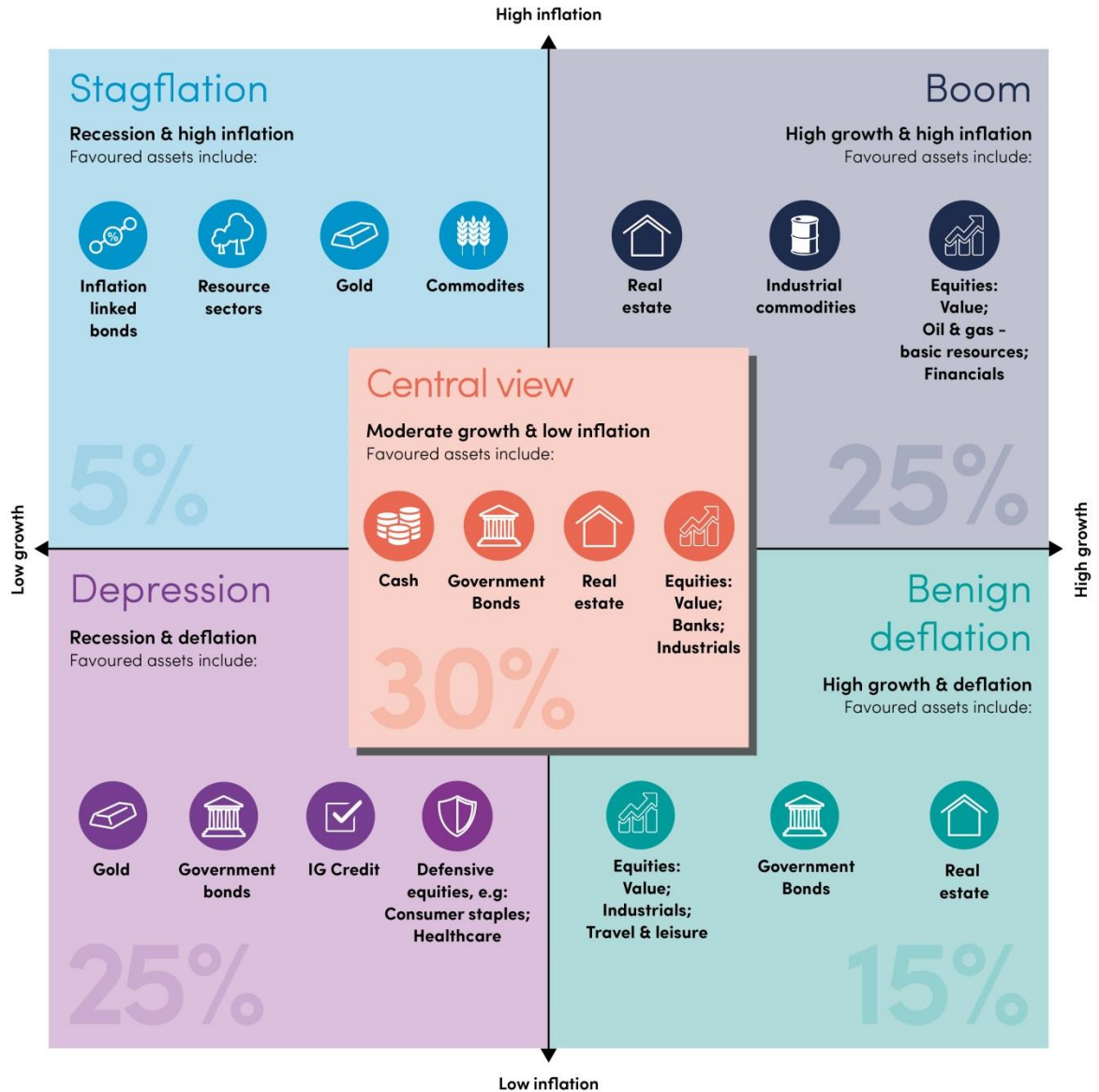
Source: Source Research

Figure 5 summarises the results for each scenario:
- The combination of cash and gold is always at the maximum allowed, though they never feature together.
- Gold, government bonds and corporate IG are favoured in scenarios 1 and 2 ("depression" and "stagflation"), while equities and real estate are preferred in the more bullish scenarios.
- More surprising is that cash is also preferred under those more bullish scenarios (for its low volatility and diversification characteristics).
- Equities are preferred to sovereign debt in only one scenario ("boom").
- HY credit is always zero weighted.

- A probability-weighted combination of all five scenarios gives a result similar to the "central" scenario. The only difference is the upgrading of equities at the expense of corporate investment grade.

Concerning currencies, we assume the so-called "safe havens" of CHF, EUR and JPY benefit during times of stress ("depression" and "stagflation") and that USD and GBP strengthen during other scenarios (Fed tightening and sterling rebound). Commodity prices and related currencies would strengthen in "stagflation" and "boom" scenarios. As we believe the CNY is still overvalued, we expect it to weaken in most scenarios, except for "benign deflation".

Figure 5 – Projected returns and optimal allocations by scenario (global asset groups)

	Neutral Portfolio	Range	Depression	Stagflation	Central	Benign Deflation	Boom	Prob-Weighted
Probabilities			25%	5%	30%	15%	25%	
Optimised allocations*								
Cash & Gold	5%	0-10%	10%	10%	10%	10%	10%	10%
Cash	*2.5%*	*0-10%*	*0%*	*0%*	*10%*	*10%*	*10%*	*10%*
Gold	*2.5%*	*0-10%*	*10%*	*10%*	*0%*	*0%*	*0%*	*0%*
Gov Bonds	30%	10-50%	50%	50%	50%	47%	26%	50%
Corp IG	10%	0-20%	20%	16%	3%	0%	0%	0%
Corp HY	5%	0-10%	0%	0%	0%	0%	0%	0%
Equities	45%	20-70%	20%	20%	31%	37%	54%	34%
Real Estate	3%	0-6%	0%	0%	6%	6%	6%	6%
Commodities	2%	0-4%	0%	4%	0%	0%	4%	0%
Projected returns in local currency to end-2017								
Cash & Gold	-	-	8.9%	6.1%	-6.8%	-11.6%	-17.5%	-5.6%
Cash	*-*	*-*	*0.0%*	*0.0%*	*0.1%*	*0.2%*	*0.3%*	*0.1%*
Gold	*-*	*-*	*17.8%*	*12.3%*	*-13.6%*	*-23.5%*	*-35.2%*	*-11.4%*
Gov Bonds	-	-	4.8%	2.9%	0.3%	0.3%	-4.3%	0.4%
Corp IG	-	-	-10.1%	0.0%	0.9%	2.0%	0.5%	-1.9%
Corp HY	-	-	-35.1%	-17.9%	-0.9%	8.2%	9.6%	-6.3%
Equities	-	-	-52.4%	-37.6%	4.9%	20.3%	56.5%	3.7%
Real Estate	-	-	-45.9%	-36.1%	11.3%	36.9%	74.2%	14.2%
Commodities	-	-	-41.2%	75.8%	-27.0%	-42.7%	74.0%	-2.5%

Source: Source Research. *Based on maximisation of Sharpe Ratios subject to the policy ranges ("Range") shown in the table. The "prob-weighted" allocations are based on probability weighted returns. See appendices for methodology & disclaimers.

As for equity sectors, we find it surprisingly difficult to extract robust detailed conclusions from previous economic cycles. We therefore rely on a number of basic beliefs (the conclusions are shown in **Figure 6**):

- Defensive (low beta) sectors will outperform during periods of recession (consumer staples, healthcare, for example). Cyclicals will do the opposite (industrials, say).
- Growth stocks will do better when bond yields fall (consumer staples, healthcare, technology); value stocks should do better when yields rise.
- Raw material producers will do better when commodities rise (oil & gas, basic resources); heavy users of such materials outperform when prices are falling (travel & leisure, industrials etc.).
- Given current sentiment, we suppose that financials will do better when economies are strong, despite rising interest rates.
- Heavily indebted companies (utilities and telecoms, say) will not enjoy benign deflation (falling prices and rising interest rates).

Figure 6 – Sector preferences for each scenario

	Depression	Stagflation	Central	Benign Deflation	Boom
Overweight	Growth stocks Consumer staples Healthcare Telecoms	Oil & gas Basic resources	Value stocks Late-cyclicals Telecoms Healthcare Banks	Consumer discretionary Industrials Financials	Value stocks Oil & gas Basic resources Industrials Financials
Underweight	Value stocks Financials Oil & gas Basic resources Industrials	Travel & leisure Industrials Financials	Growth stocks Oil & gas Utilities	Oil & gas Basic resources Personal goods Utilities Telecoms	Growth stocks Consumer staples Healthcare Telecoms

Source: Source Research.
See appendices for methodology and disclaimers

Beyond the crowd

Before moving on to the scenarios we can imagine for 2017, it is worth making a general point about the pay-offs to investment based on positioning relative to the consensus.

Everybody likes to think they are different from the crowd but, as most of us base our decisions on the same sets of information, views tend to congregate in the same areas. The real problem is to identify the consensus view and to know when we differ from it.

This is not just a matter of curiosity – the payoffs on our investments are likely to be impacted by such considerations. As illustrated by **Figure 7**, there are four main cases to consider with respect to our positioning:

- Correct but consensus – there will be a positive payoff but it will be limited because everybody else has done the same.
- Correct and non-consensus – the positive payoff will be large because the market is surprised.
- Wrong and consensus – the negative payoff will be large because everybody is positioned wrongly.

- Wrong but non-consensus – the negative payoff will be limited (just as will be the positive payoff to those with the consensus view).

On this basis, out-of-consensus views should be preferred, as the positive implications of being correct outweigh the negative consequences of being wrong. Of course, if we feel strongly that the consensus view is correct, we should stick with it. However, any positive payoff will be small (and losses large), so the position should be scaled accordingly.

In what follows, it is safe to say that our "central" scenario is broadly in line with consensus views. However, where we might differ is in the probabilities we assign to non-central outcomes: in our view, we place a higher probability on positive outcomes ("benign deflation" or "boom") than does the average investor, though the election of Donald Trump could shift views about the likelihood of a boom (inspired by infrastructure spending and tax reform, say).

Figure 7 – Positioning relative to consensus and related payoffs
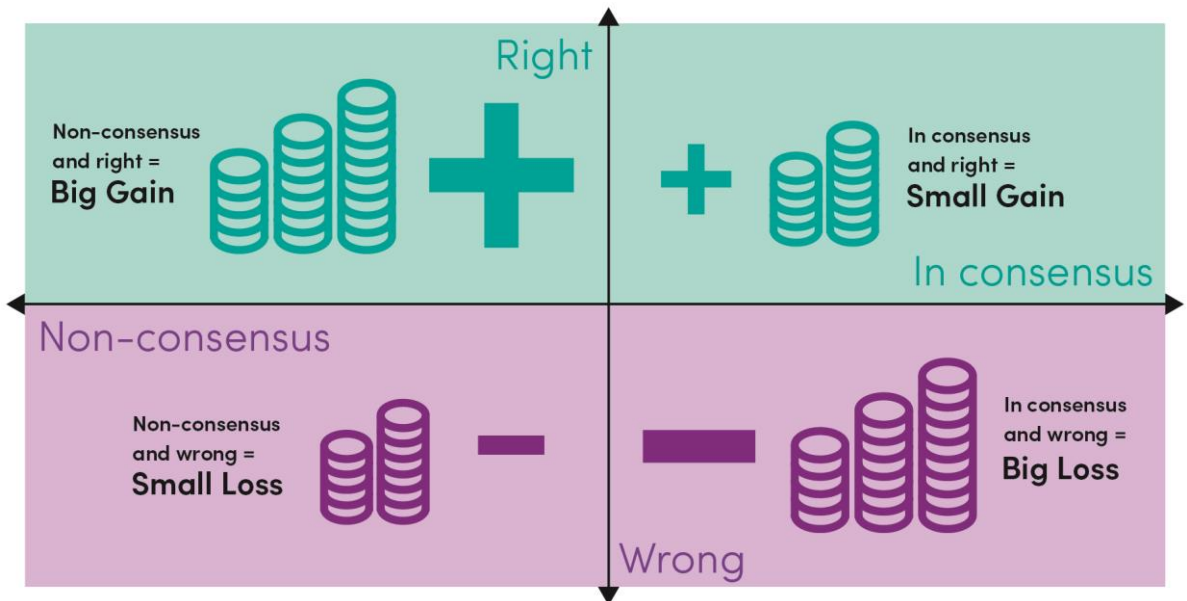
Source: Source Research

Source 2017 outlook

The Economic Roller Coaster is a neat way to describe our views (see **Figure 8**). Broadly speaking, our outlook for 2017 is for more of the same:

- Divergent economic performance resulting in moderate global growth and low inflation (around 3% for both global GDP growth and CPI inflation). A Trump presidency could boost fiscal spending (good for growth) but may dampen global trade (bad for growth).
- The US continues to expand (around 2% GDP growth), China remains in steady-state (6%-7% growth), while Brexit and political uncertainty could be a drag on Europe.
- The Fed remains the only central bank of note to tighten.
- The US dollar squeezes higher.
- Commodity prices continue lower after consolidating during 2016.

A lot will happen during 2017 (see 2017 timeline) but markets are likely to be preoccupied by:

- Whether the US is tipping into recession or growing enough to allow the Fed to tighten (we think the latter).
- Whether Trump's fiscal activism will spread (we hope so but doubt it).
- Whether China is accelerating or decelerating (we expect steady state).
- The scope for further BOJ and ECB easing (we think it serves no purpose but believe that both may do more).
- Whether rising headline inflation signals a pick-up in inflation pressures (we think not).
- The direction of oil and other industrial commodities (we think lower).
- The mechanics of Brexit and the impact on the UK economy (we see problems ahead and expect the UK to dabble with recession)
- Whether the upcoming Italian referendum (December 4) and elections in the Netherlands (March 15), France (April and May) and Germany (September or October) provoke a re-run of the Eurozone crisis (we think it is possible but not probable).
- Whether presidential elections in Iran (May 19) bring global uncertainty (hard to say with a new US president but we doubt it).

In the language of Donald Rumsfeld, the above list features the known-unknowns, whereas the real problems are often those we didn't think about at the start of the year (the unknown-unknowns). Later in this document we will run through a number of alternative scenarios but for now will focus on the central view.

Figure 8 – The economic roller coaster
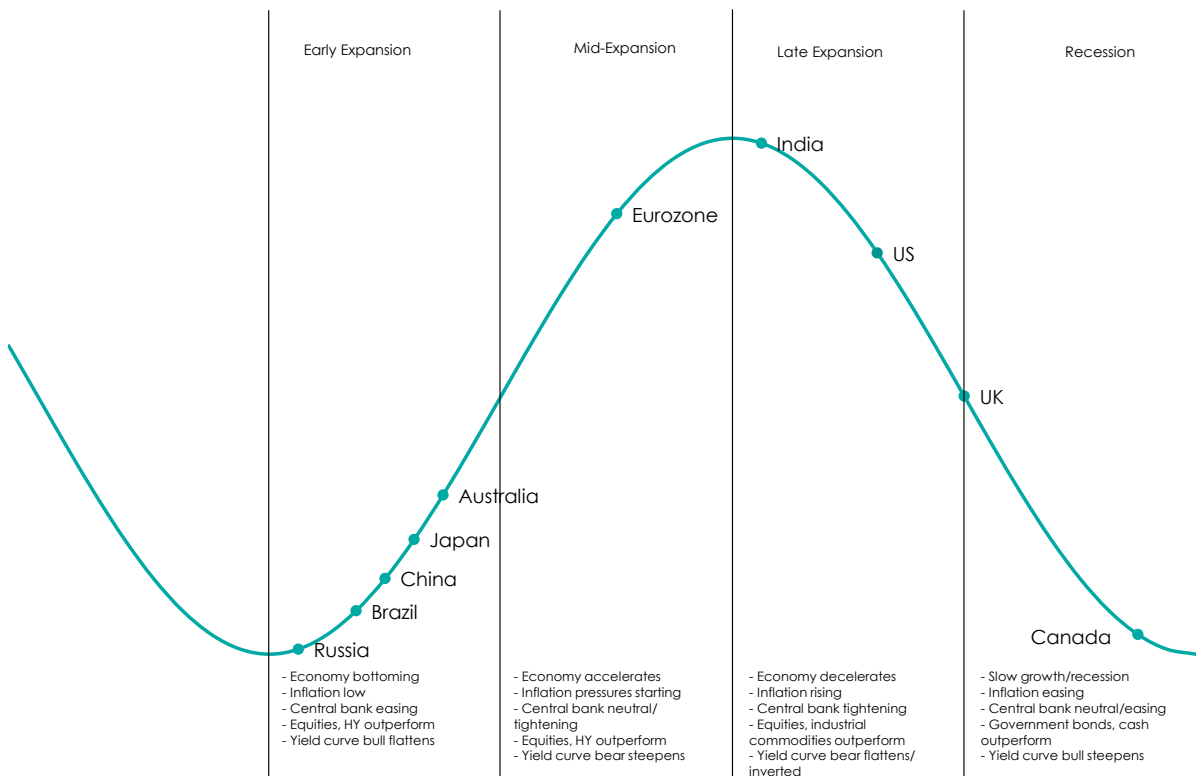
Source: Source Research

Figure 9 – Market forecasts for central scenario*

|	Current (31/10/16)	Forecast End-2017
Central Bank Rates		
US	0.50	1.00
Eurozone	-0.40	-0.40
China	4.35	3.50
Japan	-0.05	-0.20
UK	0.25	0.25
10yr Bond Yields		
US	1.83	2.00
Eurozone	0.08	0.20
China	2.74	2.50
Japan	-0.05	-0.05
UK	1.24	1.00
Exchange Rates/US$		
EUR/USD	1.10	1.05
USD/CNY	6.78	7.25
USD/JPY	104.82	108.00
GBP/USD	1.22	1.30
USD/CHF	0.99	1.00
Equity Indices		
S&P 500	2126	2100
Euro Stoxx 50	3055	3250
FTSE A50	9852	10800
Nikkei 225	17425	20000
FTSE 100	6954	7300
Commodities		
Oil (Brent)	47	30
Gold	1274	1100
Copper	4841	4000

*See Appendices for methodology and disclaimers.
Source: Datastream and Source Research

Figure 9 shows our end-2017 forecasts for a range of variables. The associated expected returns are shown in **Appendix 2** and summarised in **Figure 10**. One difference versus a year ago is the lower bond yield forecasts (when we did this exercise a year ago, we expected US treasury yields to be at 2.80% by end-2016, whereas we now suggest 2.00% for end-2017). This is not because we are any less optimistic about this cycle, rather it is because our analysis of long term demographic trends has led to a re-assessment of the long term outlook for inflation and interest rates – see Pictures of distress.

In our view, the best returns during 2017 will be had on equities and real estate, the result of a slight dip in yields in some regions and modest dividend growth. The worst returns are expected in the commodity space, assuming that global growth is insufficient to rebalance supply and demand for industrial commodities.

The low starting yield explains the poor returns that are projected on sovereign debt and corporate IG credit. The big exception is in the emerging markets, where yields are expected to decline, though anticipated currency losses eliminate those gains when translated into dollars (see **Appendix 2**).

**Figure 10 – Projected global returns to end-2017**
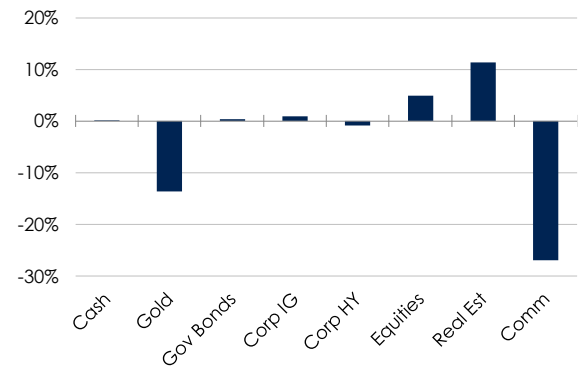
Source: Source Research. Notes: All returns are in local currency terms. See appendices for methodology and disclaimers.

Corporate high-yield spreads are expected to reverse the narrowing seen during 2016 and the anticipated rise in US default rates (to 7% due to our negative view on oil) further handicaps the return potential.

Though the Fed raised rates in December 2015, it feels as if the widely anticipated December 2016 hike will be the first of this cycle (if it is not December, we think it will be shortly thereafter). Fortunately, beyond some initial hesitation, the markets are usually able to shrug off the early stages of Fed tightening (see **Figure 11**).

Figure 11 – Total returns when the Fed first hikes
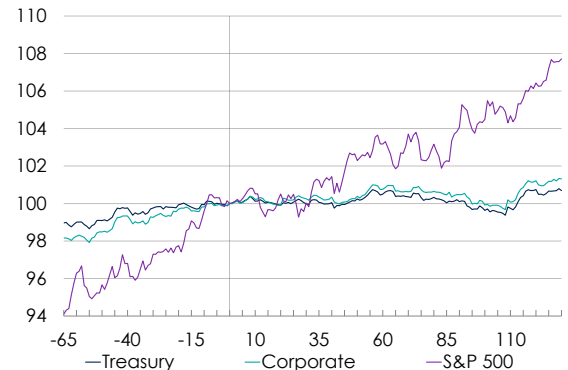
Source: BAML, Datastream and Source Research. The chart shows total return indices from 3 months before the first Fed rate hike to 6 months after (rebased to 100 on the day of the hike; the x-axis shows the number of days before and after the hike). The chart represents the average performance of each asset class across the six rate hike cycles that started in January 1983, the last being that of 2004. Past performance is no guide to future performance.

Figure 12 – Aggregate assets of the QE5
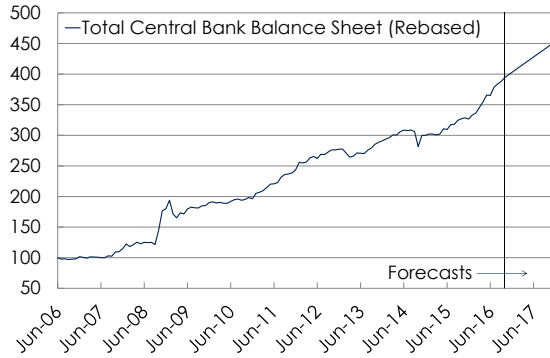
Notes: The QE5 comprises the Fed, BOE, ECB, SNB and BOJ.
Source: Datastream, Bank of England, Source Research

We expect one further rate hike from the Fed during 2017 and do not expect that to trouble markets, especially as other central banks remain supportive (see **Figure 12**). Though we doubt the efficacy of ECB, BOJ and SNB asset purchases, we expect them to continue. The BOE also appears set to remain vigilant against a slowing economy during 2017. Elsewhere, the central banks of China, Russia and Brazil will continue on a loosening trend, in our opinion.

The most important multi-asset decision is the allocation to cash and sovereign debt (given their low correlation to other assets). Based on our 2017 projections, the optimal allocations to both are the maximum allowed, as is also the case for real estate (see **Figure 13**). It would appear that the returns available on other assets, such as equities, are not sufficient to outweigh the desirable properties of cash and sovereign debt (low volatility and low correlation).

By the same token, the superior returns expected on equities are not enough to overcome the volatility of that asset class and its relatively high correlation to many other groups (see **Figure 14**).

Figure 13 – Central scenario optimised allocations
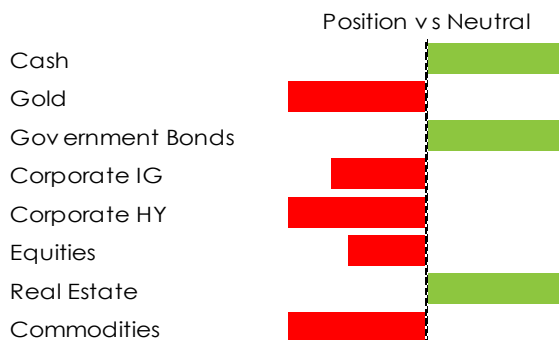
Source: Source Research. See appendices for methodology.

Figure 14 – Average pairwise correlations between global asset classes
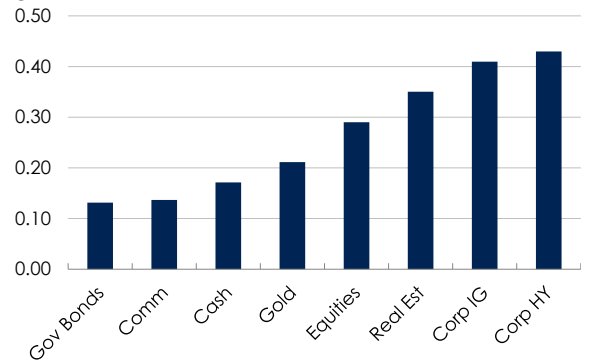
Notes: We calculate correlations using monthly local currency total returns in the last 5 years for global assets. We take an average of all pairs across each asset class.
Source: BAML, MSCI, GSCI, FTSE, Datastream, Source Research

Favoured assets for 2017

Based on the expected returns shown in **Appendix 2**, our preferred areas of focus are:

- Sovereign debt: emerging markets
- Equities: Japan and Europe
- Real estate: Global
- Cash: USD

Favoured equity sectors for 2017

The Source Sector Selector was published in October 2016 and was based on the following premises:

- The Fed will be tightening during 2017
- The dollar is expected to strengthen
- Commodities will continue to weaken
- The Eurozone economy will continue to improve

We place a lot of emphasis on valuations (see The role of valuations in sector selection) and compare current values to our model-predicted ratios (see **Figure 15**).

Putting the above assumptions together with valuations, leads to the following preferences:

Most favoured sectors

- US: banks, telecoms
- Europe: banks, construction, telecoms

Least favoured sectors

- US: oil & gas, technology, utilities
- Europe: autos, personal goods, real estate

Figure 15 – Sector premium/discount to model-predicted cyclically adjusted ratios
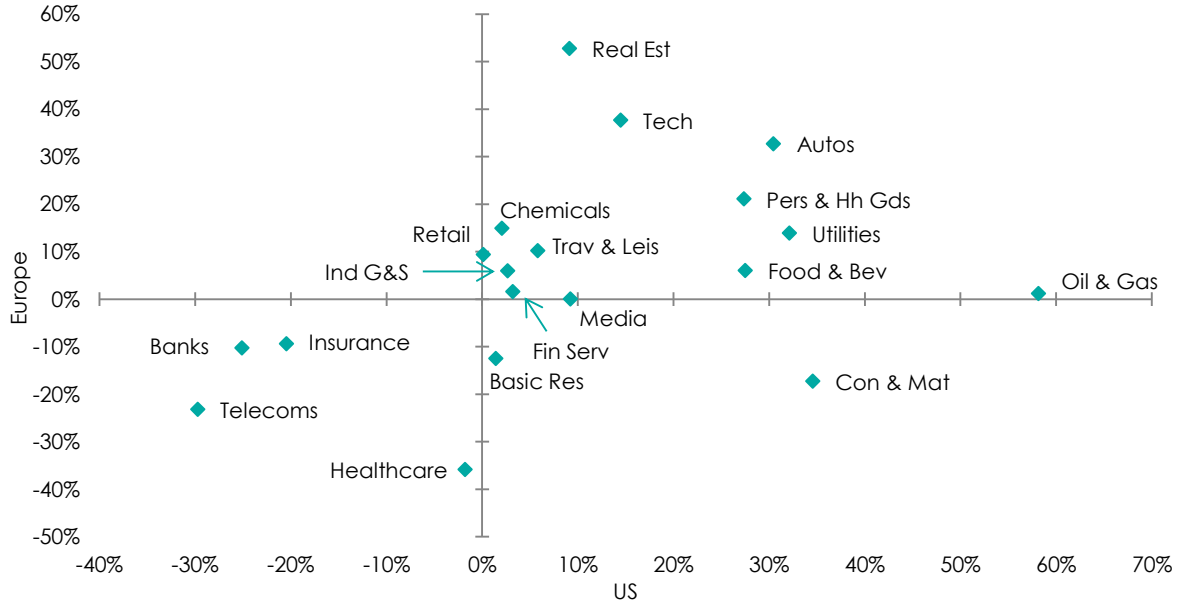
Note: Based on cyclically adjusted price/cash-earnings ratio for US sectors and cyclically adjusted dividend yield for European sectors (the current ratios are compared to model predicted ratios). The models are based on a multiple regression analysis of the factors that explain changes in valuation (such as exchange rates, slope of the yield curve, consumer sentiment, employment, sector ROE, sector debt/EBITDA etc). Cyclical adjustment is done by using a 10 year moving average of cash-earnings or dividends. Data as at 30th September 2015 close. See appendices for methodology and disclaimers.

Source: Datastream and Source Research.

Five scenarios for 2017

Rather than limiting ourselves to one scenario for 2017, we prefer to discuss a range of possible outcomes for the global economy, especially given the political uncertainties. This hopefully broadens the usefulness of the document (not everybody will agree with our central scenario) and helps us to think more carefully about our investment choices. The US election result does not change the underlying scenarios but has caused us to re-think the assigned probabilities.

Though a large number of scenarios can be imagined, we have narrowed it down to five broad categories: three of which are consistent with the idea that more growth leads to more inflation (including the central view) and the other two of which deviate from that linear relationship (stagflation and benign deflation).

Figure 16 gives a quick overview of the five scenarios in growth/inflation space:
- Depression – recession and deflation
- Stagflation – recession and high inflation
- Central scenario – low growth and low inflation (in line with the consensus view)
- Benign deflation – high growth and deflation
- Economic boom – high growth and high inflation

As mentioned above, the "depression", "central" and "boom" scenarios are part of a Philips Curve type continuum, where more economic growth is associated with more inflation. However, "stagflation"

and "benign deflation" are off that beaten track and in our minds would be the result of a supply shock to commodity or labour prices ("stagflation" would result from an upward shock to input costs, whereas "benign deflation" would result from a downward shock). "Benign deflation" could also be the result of a technology inspired boost to productivity.

A complicating factor is that the scenarios are not mutually exclusive and a number could be playing out at the same time. For instance, "stagflation" seems a distant prospect at the moment but commodity producing countries such as Brazil and Russia currently show symptoms (low raw material prices depress the economy and the exchange rate, the latter of which boosts inflation). At the same time a commodity consuming country (China, say) may be experiencing "benign deflation" (low input costs depress inflation and boost spending power). Also, a given scenario may simply be a stepping stone to another. For instance, "benign deflation" could pave the way to "boom".

As the analysis is limited to 2017, there is a certain asymmetry – it is easier to imagine a rapid descent into deep recession within a year (as in 2008) than a rapid move to overheating. Though upside surprises are possible, their amplitude is likely to be less than for downside shocks, in our opinion.

Figure 16 – Five scenarios for the global economy (with assigned probabilities)
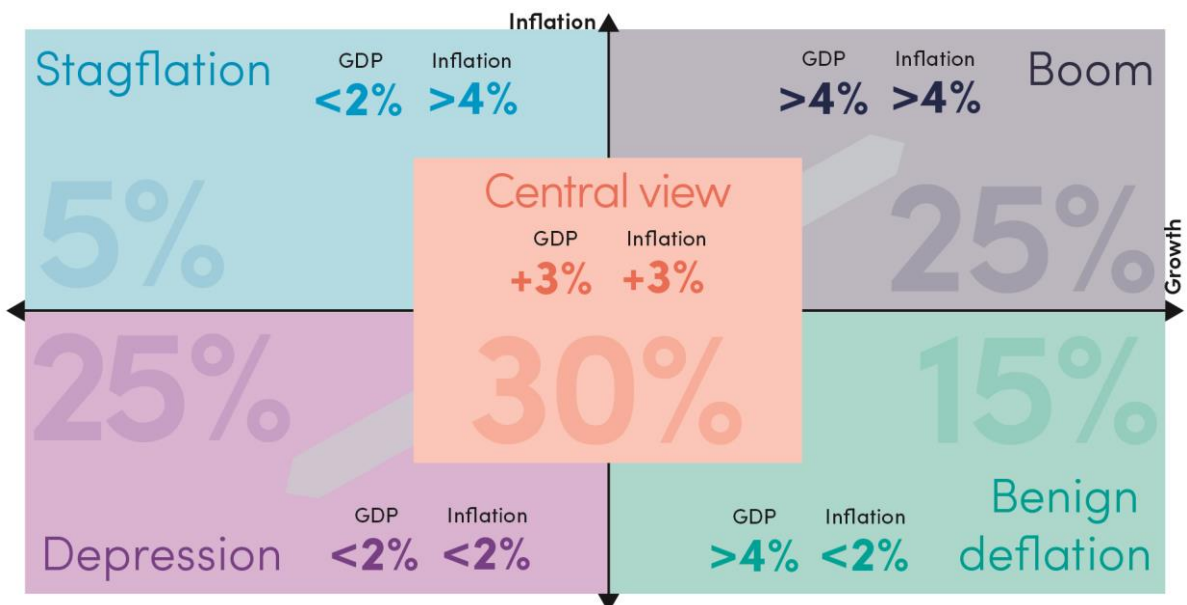
Source: Source Research

In each scenario section, we outline the following:

- Description
- Causes
- Early signs
- Policy reaction
- Historical precedents
- Current examples
- Expected returns across assets/regions
- Currency implications
- Favoured assets and sectors
- Probability

The full set of assumptions and expected returns are contained in the appendices. Expected returns are a function of projected movements in yields and default and recovery rates (for high yield), dividend growth (for equities and real estate), the dollar (for gold), historical real price norms (for other commodities) and real exchange rates for currencies. A good starting point is the existing valuation of t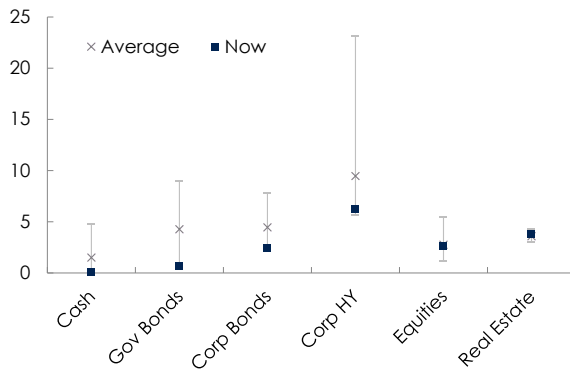he various asset classes and **Figure 17** puts current yields in a historical context (regional detail is shown in **Appendix 4**). This shows how challenging it has become to generate consistent high returns.

Figure 17 – Global yields by asset class (%)

Source: Datastream and Source Research

The most difficult part of the analysis was to decide how central banks would react in the two supply-shock scenarios ("stagflation" and "benign deflation"). Though inflation may rise during 2017, it is unlikely to explode and we suspect the Fed would take more notice of the economic deceleration in a "stagflation" scenario, thus causing it to reduce rates, rather than increase them as imagined in the "central" scenario. We also predict lower rates under "stagflation" in both China and the UK but assume no difference for the ECB and the BOJ.

In the case of "benign deflation" (high growth, deflation), we presume the Fed, BOE and PBOC would again take their cue from growth which implies rates higher than in the "central" scenario (even though inflation is lower). Again, we assume no change from the ECB and the BOJ, both of whom we expect to remain committed to their accommodative polices (though they would adjust under the "depression" and "boom" scenarios).

Figure 18 – Optimal allocations by scenario
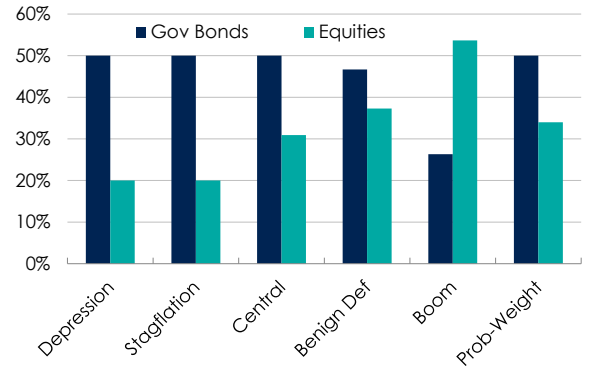
Notes: The chart shows optimal allocations for global equities and government bonds for each of the scenarios we consider in this report (based on maximizing the Sharpe Ratio). We also include an optimization using probability-weighted expected returns. The policy ranges are 10%-50% for sovereign debt and 20%-70% for equities.
Source: Datastream and Source Research

Figure 18 gives a flavor of the conclusions, showing the optimal allocations for sovereign debt and equities under each scenario. We also show the optimal weightings when using probability weighted expected returns.

Detailed forecasts are shown in the scenario sections that follow (with regional expected returns outlined in **Appendix 2**). A summary of the global asset class returns is shown in **Figure 19**, along with the full set of optimised allocations (the same covariance matrix is used in all cases, based on monthly data from the last five years). The Sharpe Ratio is maximised subject to the policy range constraints shown in the table.

In general, as we move across the table from left ("depression") to right ("boom"), the preferences switch from the so-called "safe havens" of gold, government bonds and investment grade credit to cash and "equity-like" assets (equities and real estate). Other commodities eventually get into the portfolio under the "boom" scenario.

Figure 19 – Projected returns and optimal allocations by scenario (global asset groups)

	Neutral Portfolio	Range	Depression	Stagflation	Central	Benign Deflation	Boom	Prob-Weighted
Probabilities			25%	5%	30%	15%	25%	
Optimised allocations*								
Cash & Gold	5%	0-10%	10%	10%	10%	10%	10%	10%
Cash	*2.5%*	*0-10%*	*0%*	*0%*	*10%*	*10%*	*10%*	*10%*
Gold	*2.5%*	*0-10%*	*10%*	*10%*	*0%*	*0%*	*0%*	*0%*
Gov Bonds	30%	10-50%	50%	50%	50%	47%	26%	50%
Corp IG	10%	0-20%	20%	16%	3%	0%	0%	0%
Corp HY	5%	0-10%	0%	0%	0%	0%	0%	0%
Equities	45%	20-70%	20%	20%	31%	37%	54%	34%
Real Estate	3%	0-6%	0%	0%	6%	6%	6%	6%
Commodities	2%	0-4%	0%	4%	0%	0%	4%	0%
Projected returns in local currency to end-2017								
Cash & Gold	-	-	8.9%	6.1%	-6.8%	-11.6%	-17.5%	-5.6%
Cash	*-*	*-*	*0.0%*	*0.0%*	*0.1%*	*0.2%*	*0.3%*	*0.1%*
Gold	*-*	*-*	*17.8%*	*12.3%*	*-13.6%*	*-23.5%*	*-35.2%*	*-11.4%*
Gov Bonds	-	-	4.8%	2.9%	0.3%	0.3%	-4.3%	0.4%
Corp IG	-	-	-10.1%	0.0%	0.9%	2.0%	0.5%	-1.9%
Corp HY	-	-	-35.1%	-17.9%	-0.9%	8.2%	9.6%	-6.3%
Equities	-	-	-52.4%	-37.6%	4.9%	20.3%	56.5%	3.7%
Real Estate	-	-	-45.9%	-36.1%	11.3%	36.9%	74.2%	14.2%
Commodities	-	-	-41.2%	75.8%	-27.0%	-42.7%	74.0%	-2.5%

Source: Source Research. *Based on maximisation of Sharpe Ratios subject to the policy ranges ("Range") shown in the table. The "prob-weighted" allocations are based on probability weighted returns. See appendices for methodology & disclaimers.

Moving in the other dimension (from "stagflation" to "benign deflation"), brings about not only the above listed changes involved when we switch from recession to growth, it also changes the way we look at commodities. A "stagflation" environment will likely be caused by high commodity prices, hence the maximum allocation to that asset class. The opposite applies to a scenario of "benign deflation" – commodity prices would be falling.

One of the interesting features of the optimal portfolios is that the allocation to currency (cash and gold) is always at the maximum allowed, though the two never appear together – it is one or the other. Gold is very useful in recessionary environments (when risks are high and real bond yields are falling), particularly when the banking system is under threat (when we fear for bank deposits). Cash seemingly has a role to play when times are better (even in the boom scenario), with its limited return potential outweighed by the advantages of low volatility and low correlation to other asset classes.

Given our long standing preference for high yield, it is interesting to note that its allocation is zero in all scenarios. The detailed expected return data and assumptions shown in **Appendices 2 & 3** suggest the main problem comes from our belief that yields are unlikely to fall greatly from current low levels, which

therefore limits potential capital gains, even in the bullish scenarios. Also, the oil price weakness assumed in a range of scenarios results in a bearish outlook for US default rates. Though decent returns are anticipated on high yield under certain scenarios, they are not sufficient compared to those on equities and real estate.

Based on the subjective probabilities we have assigned to the various scenarios, we have calculated probability-weighted expected returns and run those through the optimiser. As can be seen from **Figure 19** the optimal allocations are broadly similar to those in the "central" scenario, the only difference being that the IG Credit position is reduced in favour of equities.

Figures 20 helps to explain why cash and sovereign debt feature in many of the scenarios. When looking at the range of possible outcomes, it can be seen that the projected returns on those assets are low but there is not much variation from one scenario to another (the risks are limited). Further, we have already seen from **Figure 14** that those assets are relatively uncorrelated to all other assets, so offer good diversification. The reverse applies to high yield.

Figure 20 – Range of projected local currency returns across scenarios to end-2017 (%)
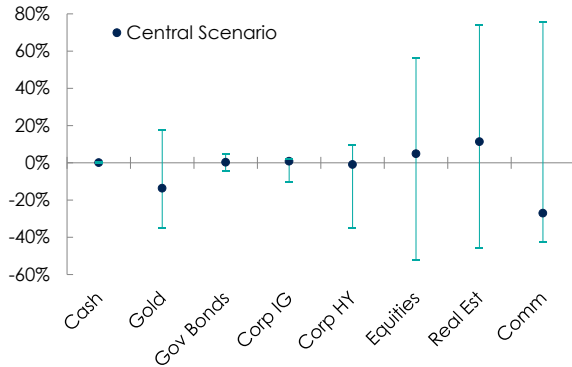
Notes: We show the range of projected returns. The ranges go from the lowest returns to the highest we expect across all scenarios.
Source: Source Research

Figure 21 is our best guess about how equity sectors perform at various stages of the economic cycle (based on US history) but the outcomes are patchy.

We therefore limit ourselves to some basic concepts, which are summarised in **Figure 22**:

- The performance of resource-related sectors (oil & gas and basic resources) is driven by

movements in commodity prices, so they feature in every scenario (positively or negatively). The reverse applies to resource intensive cyclical sectors such as travel & leisure and industrials.

- Certain defensive (low beta) sectors such as consumer staples and healthcare tend to outperform during recessions and lag during booms.

- The premium paid for growth should increase as bond yields fall (they are long duration assets). We include technology in the growth category.

- It could be argued that financials should suffer as interest rates rise (and the yield curve flattens) but the current lack of confidence in the sector suggests to us that economic and property cycles will be key (hence we would be Overweight in scenarios where the economy does well).

- Utilities and telecoms could be placed in the "value" category but we also name them in the Underweight category for the benign deflation scenario as their heavy debt loads would be penalised by the combination of deflation and higher bond yields.

Figure 21: The economic cycle and sector preferences
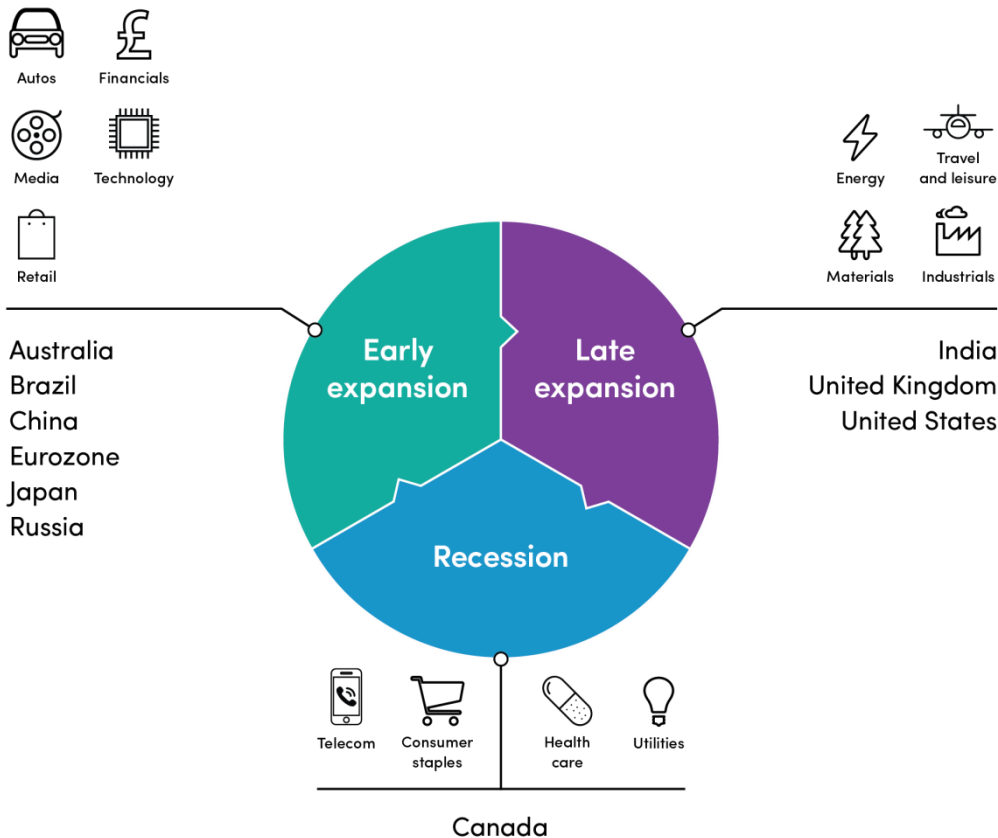
Source: Source Research

Figure 22 – Sector preferences for each scenario

	Depression	Stagflation	Central	Benign Deflation	Boom
Overweight	Growth stocks Consumer staples Healthcare Telecoms	Oil & gas Basic resources	Value stocks Late-cyclicals Telecoms Healthcare Banks	Consumer discretionary Industrials Financials	Value stocks Oil & gas Basic resources Industrials Financials
Underweight	Value stocks Financials Oil & gas Basic resources Industrials	Travel & leisure Industrials Financials	Growth stocks Oil & gas Utilities	Oil & gas Basic resources Personal goods Utilities Telecoms	Growth stocks Consumer staples Healthcare Telecoms

Source: Source Research. See appendices for methodology and disclaimers

Before moving on to the individual scenarios, it is interesting to consider where to place each of the ten largest economies. We show our opinions in **Figure 23** but it is not an easy process.

If in this case, the origin is considered to be "trend" growth and inflation, the UK and the US are deemed closest to achieving that during 2017. Their direction of movement from here is hard to say (a fiscal boost should help the US but the Fed will tighten and Brexit complicates the outlook for the UK).

A range of economies are in what we would call mild recession/low growth territory (including China) but the combination of policy easing and low commodity prices could push them into the benign deflation area. Brazil and Russia exhibit stagflation symptoms and the likely direction of travel is toward straightforward recession/recovery. India is the one most likely to be enjoying benign deflation and is perhaps the best candidate for a switch to boom.

Figure 23 – The ten largest economies in growth/inflation space (arrows indicate expected move in 2017)
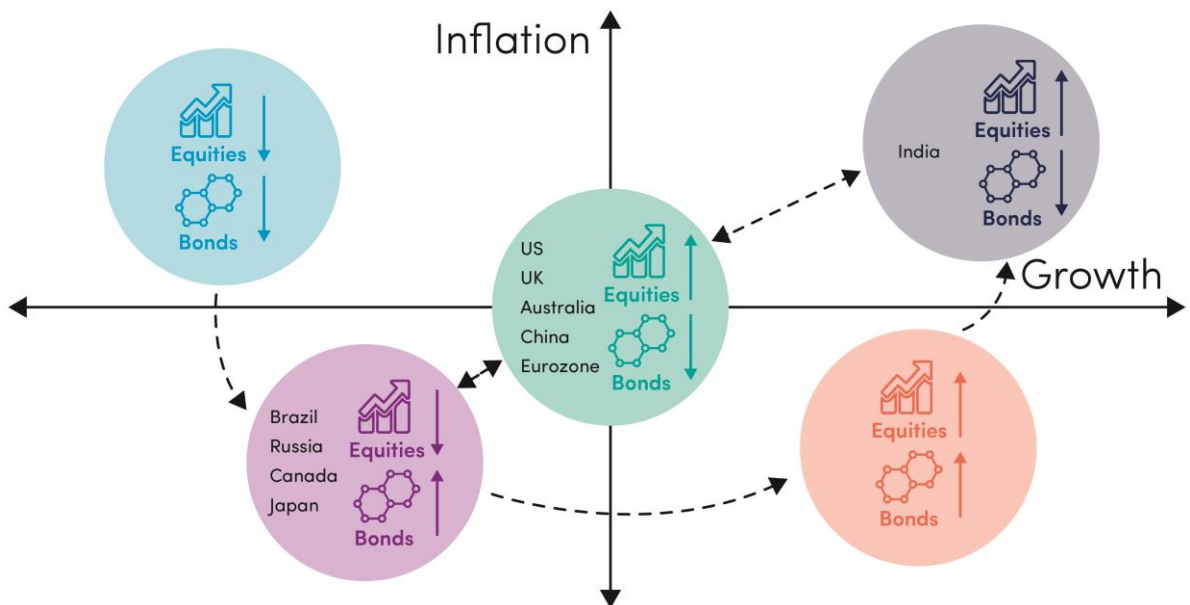
Source: Source Research

Scenario 1: Depression (recession & deflation)

Causes	Lack of demand for goods/services (savings exceed investment), perhaps due to excessive debt or premature policy tightening
	Lack of demand for credit (liquidity trap renders monetary policy ineffective)
Early signs	Bursting of debt-fuelled bubble, banking crisis, falling core inflation and lowering of inflation expectations
	Ineffective central bank policy and fiscal policy mistakes (austerity)
Policy reaction	Easing (rates and asset purchases) with switch to expansive fiscal policy
Currencies	CHF, EUR and JPY strengthen; GBP, CNY weak
Historical precedents	Great Depression, 2008/9 financial crisis (US and UK), Eurozone crisis
Current examples	Canada and Japan (late stage)

⬆ Government bonds, IG Credit, gold, defensive sectors (consumer staples, healthcare)

⬇ Equities, real estate, corporate HY, banks and cyclical sectors (resource-related, industrials)

Probability*		Source*	Consensus*
		High	High
25%		Moderate	Moderate
		Low	Low

*This shows the view of Source Research about the likelihood of such an outcome (including a view about what the consensus thinks).
Source: Source Research

Scenario 1: Depression

This is perhaps the most commonly feared outcome. With growth and inflation currently at moderate levels in many economies, any slip into recession could easily result in this sort of scenario, especially with fiscal and monetary tools exhausted in many countries. With monetary policy proving ineffective in many places, the final resort would perhaps be fiscal policy (financed by central banks). We see a non-negligible probability (25%). Markets seem less concerned than a year ago.

Elevated debt levels heighten the risk that slowdowns could build on themselves, causing a re-run of the 2008/9 crisis. China did relatively well during that crisis but has since joined the club of countries with a worrying level of debt (though it has more tools than most to deal with such a problem).

Up to a certain point, cash would be one of the favoured assets. However, if the banking sector again becomes embroiled in such a crisis, the safety of bank deposits could be called into question, hence the preference for government bonds and gold. The latter is assumed to benefit from worries about banks and from the sharp drop in real bond yields (which represent the opportunity cost of holding it).

Among equities we would favour growth and defensive stocks. This pushes us naturally into areas such as consumer staples, healthcare and telecoms. On the assumption that commodity prices would be weak, we would want to avoid oil & gas and basic resources. We would also avoid other cyclicals and financials (based on the experience of 2008/9).

Figure 24 – Market forecasts for depression*

	Current (31/10/16)	Forecast End-2017
Central Bank Rates		
US	0.50	0.10
Eurozone	-0.40	-0.50
China	4.35	2.50
Japan	-0.05	-0.40
UK	0.25	0.00
10yr Bond Yields		
US	1.83	1.00
Eurozone	0.08	-0.10
China	2.74	2.00
Japan	-0.05	-0.60
UK	1.24	0.50
Exchange Rates/US$		
EUR/USD	1.10	1.40
USD/CNY	6.78	7.50
USD/JPY	104.82	80.00
GBP/USD	1.22	1.10
USD/CHF	0.99	0.80
Equity Indices		
S&P 500	2126	900
Euro Stoxx 50	3055	1350
FTSE A50	9852	5500
Nikkei 225	17425	9250
FTSE 100	6954	3250
Commodities		
Oil (Brent)	47	20
Gold	1274	1500
Copper	4841	3000

*See Appendices for methodology and disclaimers.
Source: GSCI, Datastream and Source Research

Figure 25 – Projected local currency global returns to end-2017
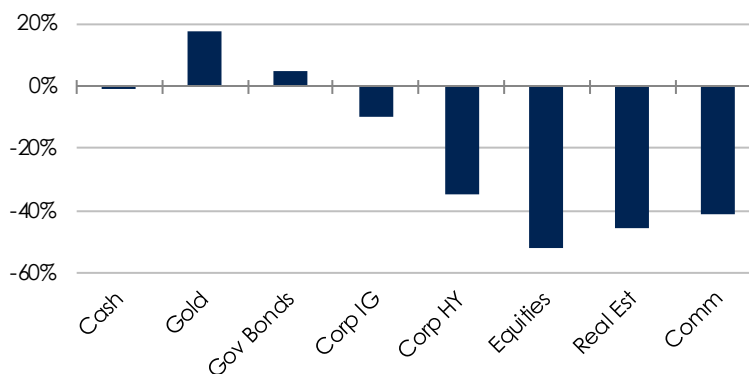
Figure 26 – Optimised allocations

Source: Source Research. See appendices for methodology and disclaimers

Scenario 2: Stagflation (recession & high inflation)

Causes	Supply shock which boosts inflation, while depressing output
	Likely commodity related but could also originate in labour market
	Alternatively, economic slump weakens currency and boosts inflation
Early signs	Rising input costs, profit margins under pressure, central bank tightening
Policy reaction	Finely balanced but major central banks would probably loosen
Currencies	CHF, EUR, JPY and CTY producing EM currencies strong; CNY weak
Historical precedents	1970s oil price shocks
Current examples	Brazil and Russia (late stage)

↑ Gold, commodites, inflation-linked bonds, oil & gas, basic resources

↓ Equities, bonds (especially HY), travel & leisure, industrials, financials

Probability*	**Source***	**Consensus***
5%	High	High
	Moderate	Moderate
	Low	Low

*This shows the view of Source Research about the likelihood of such an outcome (including a view about what the consensus thinks).
Source: Source Research

Scenario 2: Stagflation

An old favourite from the 1970s and 1980s is the combination of recession and high inflation. We assign it a low probability at the global level (5%), though some countries (notably Brazil and Russia) exhibit the symptoms, with commodity-induced currency weakness feeding through into inflation. Post-Brexit Britain could display some of these symptoms.

Most financial assets offer little protection, with both equities and bonds suffering, especially in real terms (resource-related stocks are the obvious exception). Inflation-protected bonds would be the choice in the fixed income space.

Commodities themselves are the obvious place to hide, with gold coming into its own (witness the sharp rise in the yellow metal during the late 1970s).

Central banks would face a tough choice – do they tighten in response to higher inflation or loosen in response to recession? We suspect the Fed, BOE and PBOC would reduce rates (the BOJ and ECB would make no change versus the "central" scenario). Though bond yields would be expected to follow central bank rates lower, we presume financial sectors would not enjoy this scenario (they underperformed during the oil price hikes of the 1970s and 1980s).

Just as resource-related stocks would benefit from the rise in commodity prices (oil & gas and basic resources, say); those that are large consumers of raw materials would suffer (travel & leisure, industrials etc.).

Figure 27 – Market forecasts for Stagflation*

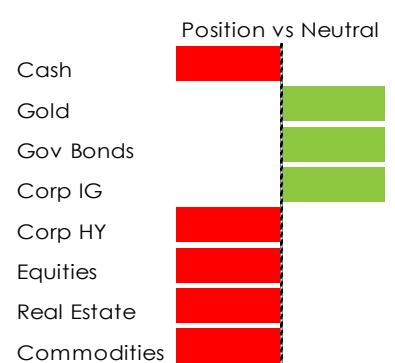|	Current (31/10/16)	Forecast End-2017
Central Bank Rates		
US	0.50	0.25
Eurozone	-0.40	-0.40
China	4.35	3.00
Japan	-0.05	-0.20
UK	0.25	0.10
10yr Bond Yields		
US	1.83	1.20
Eurozone	0.08	0.10
China	2.74	2.20
Japan	-0.05	-0.20
UK	1.24	0.75
Exchange Rates/US$		
EUR/USD	1.10	1.30
USD/CNY	6.78	7.75
USD/JPY	104.82	90.00
GBP/USD	1.22	1.15
USD/CHF	0.99	0.90
Equity Indices		
S&P 500	2126	1200
Euro Stoxx 50	3055	1700
FTSE A50	9852	6050
Nikkei 225	17425	11500
FTSE 100	6954	4250
Commodities		
Oil (Brent)	47	100
Gold	1274	1430
Copper	4841	8000

*See Appendices for methodology and disclaimers.
Source: GSCI, Datastream and Source Research

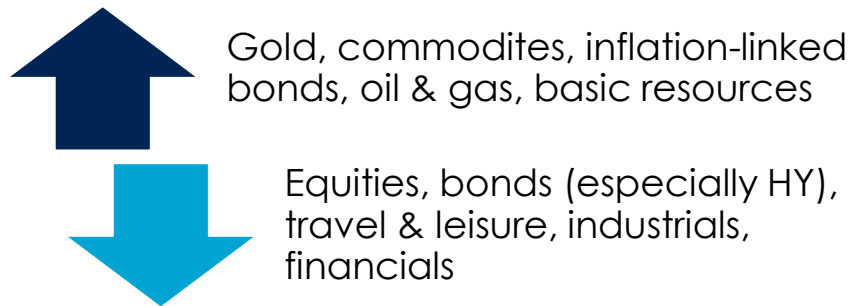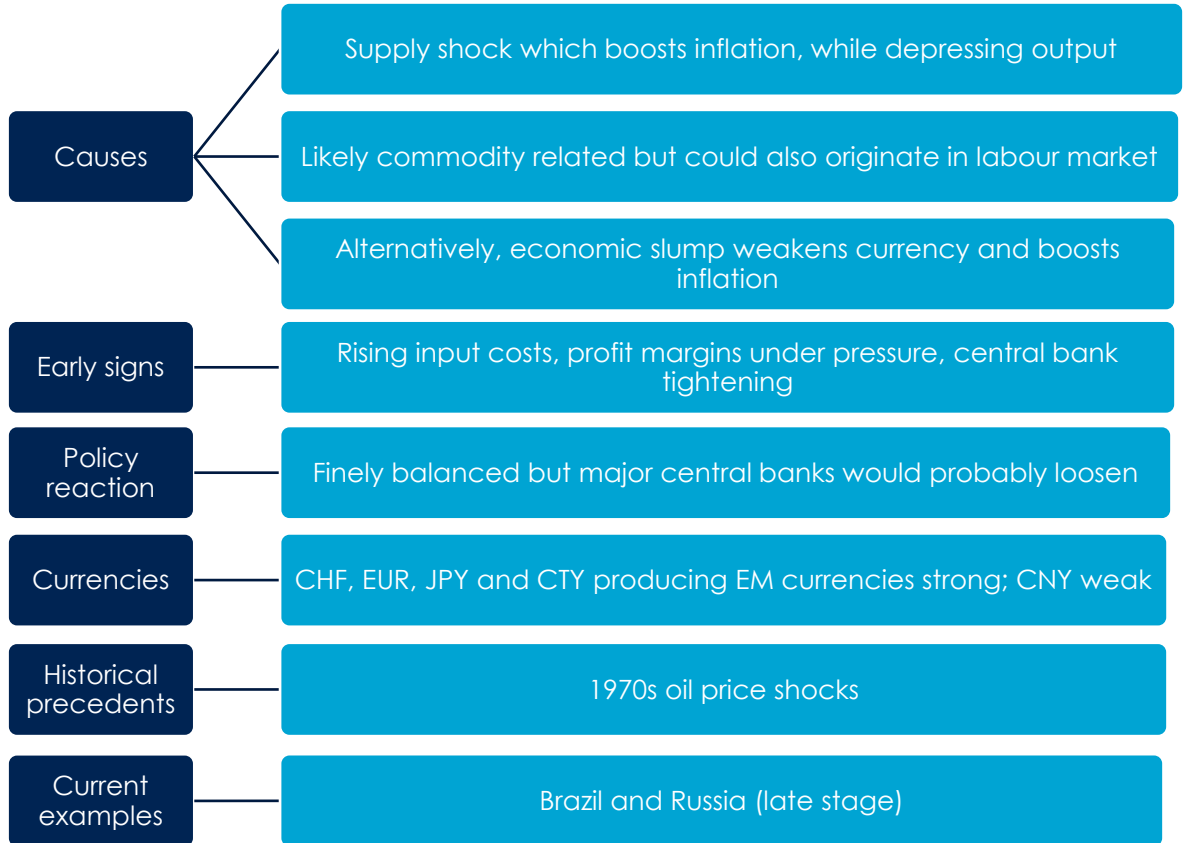**Figure 28 – Projected local currency global returns to end-2017**
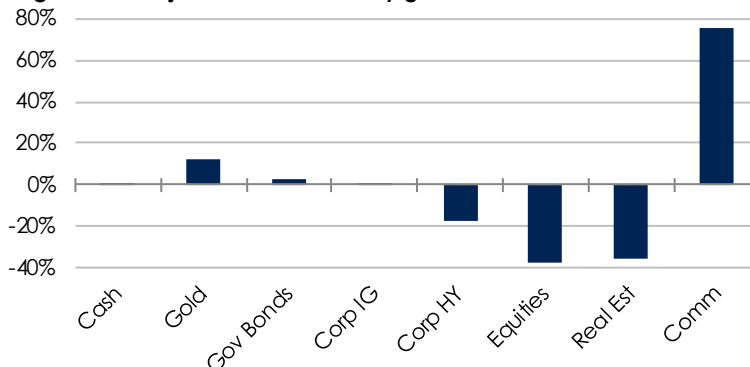
Figure 29 – Optimised allocations

Source: Source Research. See appendices for methodology and disclaimers

Scenario 3: Central scenario (moderate growth & low inflation)

Causes	Excess debt and deleveraging
	Poor demographics

Early signs	Flattening debt/GDP ratios, muted response to monetary stimulus
	Reduced labour force, stable core inflation

Policy reaction	Gradual tightening after long period of accommodation/inaction

Currencies	EUR and CNY weakness on central bank easing

Historical precedents	US since 2012

Current examples	US, Eurozone and UK (late stage)

↑ Cash, govt bonds, real estate, equities, banks, value stocks, late-cyclicals

↓ Corporate HY, gold, commodities, growth stocks, oil & gas, utilities

Probability*

30%

Source*	Consensus*
High	High
Moderate	**Moderate**
Low	Low

*This shows the view of Source Research about the likelihood of such an outcome (including a view about what the consensus thinks).
Source: Source Research

Scenario 3: Central

This assumes a continuation of recent history: low global growth and low inflation (consensus forecasts for 2017 are 3.2% GDP growth and 3.2% CPI inflation). The presumption is that the leverage cycle has flattened out and perhaps turned lower (with the notable exception of China). The commodity super-cycle is still unwinding.

Central banks will remain overall supportive and are more likely to loosen than to tighten (with the notable exception of the Fed). Hence, central bank rates and bond yields will remain low. The assumption of mild growth suggests equity-like assets can continue to outperform, though the margins of outperformance will become finer.

Across fixed income groups, we suspect EM bonds will provide the best returns (though EM currencies may continue to struggle if commodities remain weak). After EM debt, US HY bonds have the highest yield but we fear a continued high default rate on the back of renewed energy price weakness. Though expected returns on sovereign debt are moderate, the low volatility and low correlation with other assets are qualities that cannot be ignored. The US yield curve should flatten (as the Fed tightens) but history suggests that short duration instruments will outperform.

Likewise, within equities, growth stocks (which are long duration in nature) should suffer relative to others. For this reason we would avoid growth sectors such as consumer staples, healthcare and technology. We prefer banks, late-cyclicals and value sectors in general.

Figure 30 – Market forecasts for central scenario*

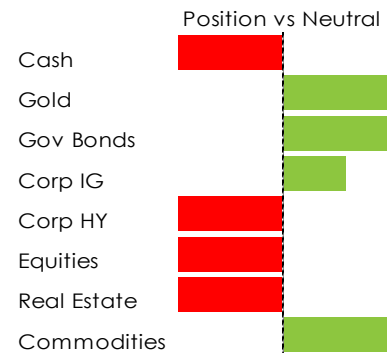|	Current (31/10/16)	Forecast End-2017
Central Bank Rates		
US	0.50	1.00
Eurozone	-0.40	-0.40
China	4.35	3.50
Japan	-0.05	-0.20
UK	0.25	0.25
10yr Bond Yields		
US	1.83	2.00
Eurozone	0.08	0.20
China	2.74	2.50
Japan	-0.05	-0.05
UK	1.24	1.00
Exchange Rates/US$		
EUR/USD	1.10	1.05
USD/CNY	6.78	7.25
USD/JPY	104.82	108.00
GBP/USD	1.22	1.30
USD/CHF	0.99	1.00
Equity Indices		
S&P 500	2126	2100
Euro Stoxx 50	3055	3250
FTSE A50	9852	10800
Nikkei 225	17425	20000
FTSE 100	6954	7300
Commodities		
Oil (Brent)	47	30
Gold	1274	1100
Copper	4841	4000

*See Appendices for methodology and disclaimers.
Source: GSCI, Datastream and Source Research

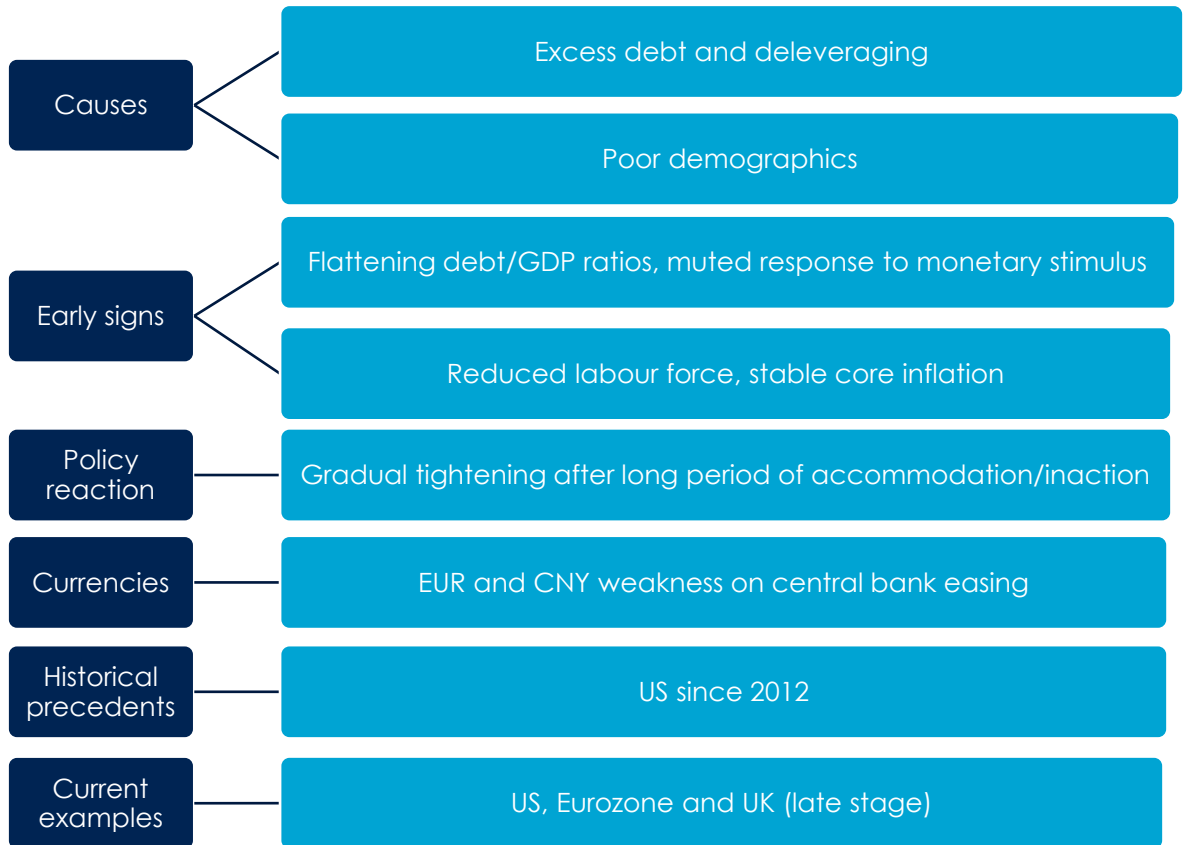**Figure 31 – Projected local currency global returns to end-2017**
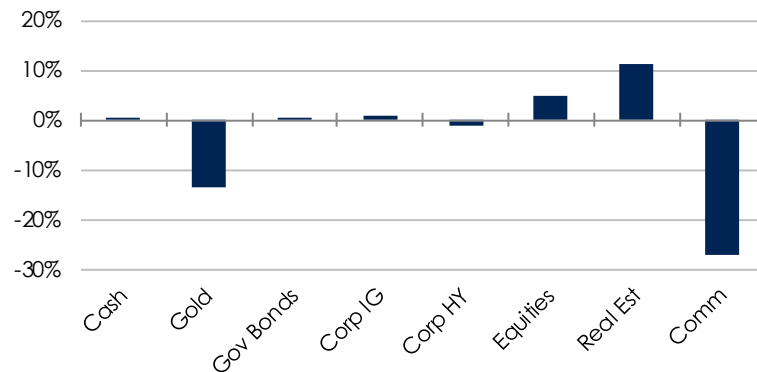
Figure 32 – Optimised allocations

Source: Source Research. See appendices for methodology and disclaimers

Scenario 4: Benign deflation (high growth & deflation)

Causes	Falling commodity prices
	Rising productivity
	Rising real incomes and demand
Early signs	Input/producer prices falling faster than CPI, widening profit margins, accelerating consumer spending
Policy reaction	Central banks marginally tighter than under central scenario
Currencies	CHF, EUR and JPY weak; USD, GBP and CNY strong
Historical precedents	Disinflationary period of 1990s
Current examples	India and China

Equities, real estate, consumer discretionary, industrials, financials

Inflation-protected bonds, gold, oil & gas, basic resources, utilities, telecoms

Probability*	Source*	Consensus*
15%	High	High
	Moderate	Moderate
	Low	Low

Scenario 4: Benign deflation

Though a problem for commodity producers, falling raw material prices imply gains in spending power for consumers and wider profit margins for the bulk of corporates. This could boost growth.

Given the decline in commodity prices over recent years, we consider this a far more likely outcome in 2017 than stagflation and suspect a number of economies have already benefitted (including China and India).

Some central banks may focus on the lower inflation implicit in this scenario but we suspect stronger growth would imply Fed, BOE and PBOC rates above those in the "central" scenario. The same would apply to bond yields: inflation protected bonds would suffer more than most, as real yields rise and implied inflation falls (also a bad scenario for gold). High-yield credit would benefit from the healthy economic environment but the energy sector would continue to be a problem.

Real estate would do well, in our opinion, and we believe most equities would sail through the rise in bond yields, helped by the combination of high growth and widening margins. Resource hungry cyclicals would be the obvious beneficiaries (travel & leisure, chemicals, industrials). Sectors to be avoided would be those related to raw materials (oil & gas, basic resources), personal goods (too defensive and too expensive), utilities and telecoms (both of which are indebted, so the combination of deflation and higher yields would hurt).

Figure 33 – Market forecasts for benign deflation*

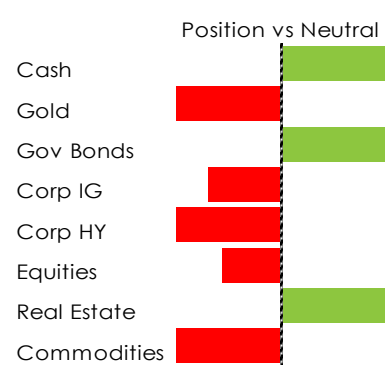|	Current (31/10/16)	Forecast End-2017
Central Bank Rates		
US	0.50	1.25
Eurozone	-0.40	-0.40
China	4.35	4.00
Japan	-0.05	-0.20
UK	0.25	0.50
10yr Bond Yields		
US	1.83	2.20
Eurozone	0.08	0.10
China	2.74	2.75
Japan	-0.05	-0.20
UK	1.24	1.10
Exchange Rates/US$		
EUR/USD	1.10	1.00
USD/CNY	6.78	6.75
USD/JPY	104.82	115.00
GBP/USD	1.22	1.35
USD/CHF	0.99	1.10
Equity Indices		
S&P 500	2126	2350
Euro Stoxx 50	3055	4000
FTSE A50	9852	16700
Nikkei 225	17425	25500
FTSE 100	6954	8350
Commodities		
Oil (Brent)	47	20
Gold	1274	975
Copper	4841	3000

*See Appendices for methodology and disclaimers.
Source: GSCI, Datastream and Source Research

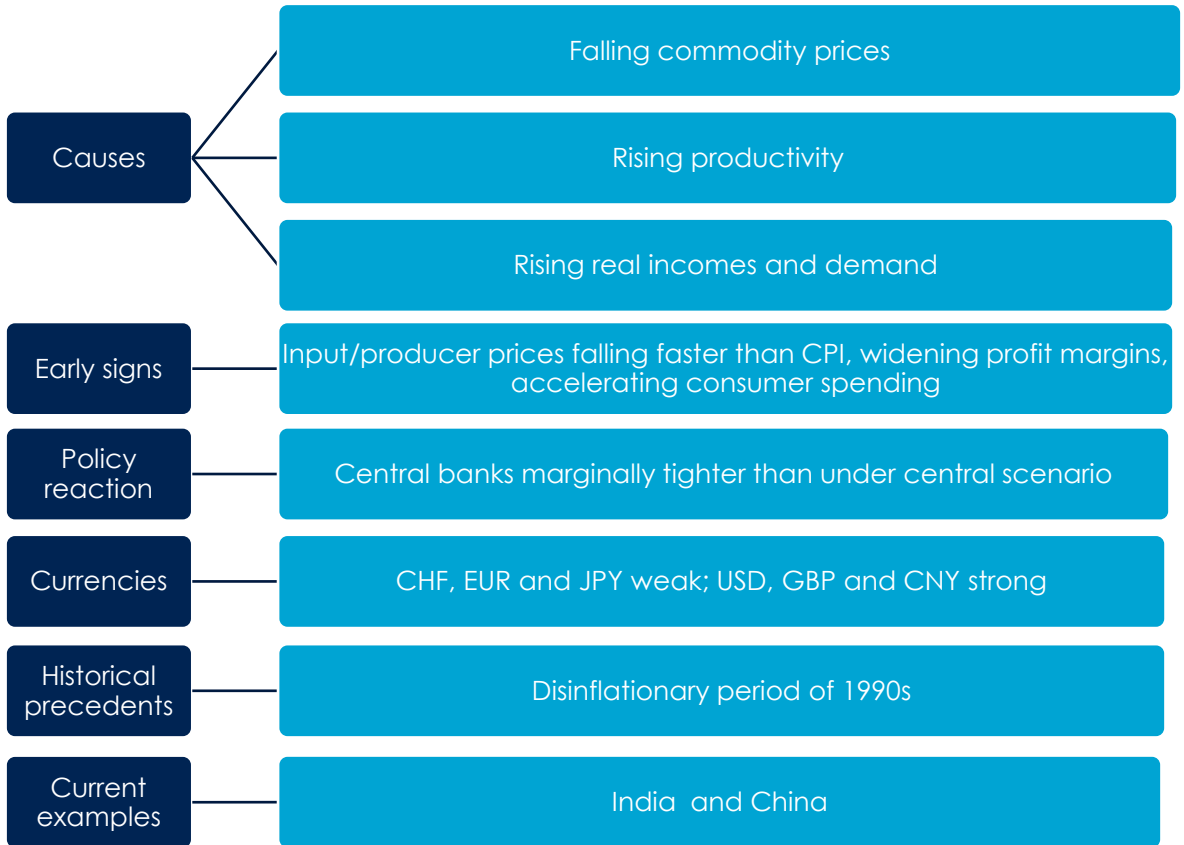**Figure 34 – Projected local currency global returns to end-2017**
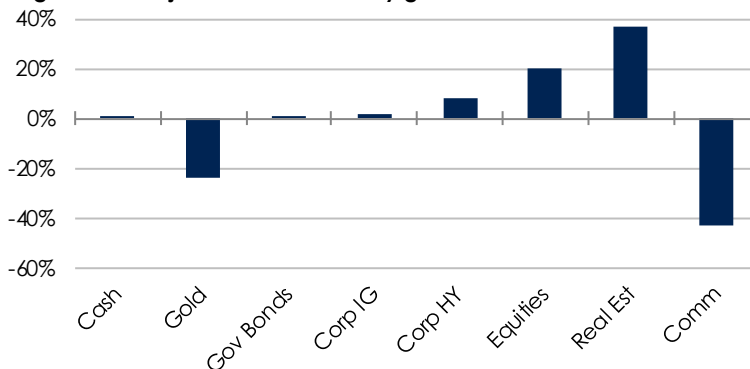
Figure 35 – Optimised allocations

Source: Source Research. See appendices for methodology and disclaimers

Scenario 5: Boom (high growth & high inflation)

Causes	Fiscal boost replaces austerity
	Demand for credit normalises and money multipliers return to historical norms
	Recent large central bank stimulus starts to have an effect
Early signs	Accelerating loan growth, improving activity data, falling unemployment, wages and prices accelerate
Policy reaction	Central banks tighten
Currencies	USD, GBP and commodity linked EM currencies strong
Historical precedents	1965-70, 1987-90, 2005-08
Current examples	Hard to identify (perhaps India or Trump's America in 2017)

⬆ Equities, real estate, value sectors (oil & gas, basic resources, financials), EM assets

⬇ Gold, sovereign bonds, corporate IG, growth sectors (consumer staples, healthcare)

Probability*	Source*	Consensus*
25%	High	High
	Moderate	Moderate
	Low	**Low**

*This shows the view of Source Research about the likelihood of such an outcome (including a view about what the consensus thinks).
Source: Source Research

Scenario 5: Boom

This would signify a return to the peak conditions of previous cycles, with global growth and inflation both going above 4%. As such it was a long way from the thoughts of most investors but a Trump fiscal boost is now reviving hopes (we have boosted the probability to 25%).

It would require the removal of those factors that seem to be limiting growth in many areas. The removal of fiscal austerity is one potential catalyst. Others could be: PBOC easing or normalisation of the demand for credit (and money multipliers) in many western economies.

We doubt that inflation would develop into a problem over the time horizon considered. Hence, gold would be more likely to suffer from the rise in bond yields than benefit from a sharp rise in inflation.

We suspect the best performing assets would be industrial commodities, equities, real estate and corporate high-yield. The best performing sectors would be resource related (oil & gas, basic resources), financials and other cyclicals such as industrials. Low yielding assets would perform poorly (developed world sovereign debt and investment grade credit, for example), as would growth sectors that have benefitted from low bond yields (consumer staples and healthcare) and sectors with high levels of debt (utilities and telecoms).

Emerging market assets would perform well, in our opinion, under the influence of stronger global growth and a rebound in commodity prices, though the Trump effect is causing short term problems.

Figure 36 – Market forecasts for boom scenario*

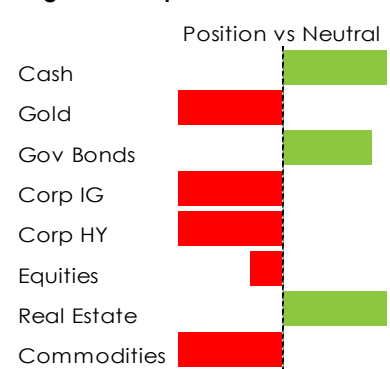|	Current (31/10/16)	Forecast End-2017
Central Bank Rates		
US	0.50	1.50
Eurozone	-0.40	0.00
China	4.35	4.50
Japan	-0.05	0.00
UK	0.25	1.00
10yr Bond Yields		
US	1.83	2.80
Eurozone	0.08	0.90
China	2.74	3.50
Japan	-0.05	0.50
UK	1.24	2.10
Exchange Rates/US$		
EUR/USD	1.10	0.95
USD/CNY	6.78	7.00
USD/JPY	104.82	120.00
GBP/USD	1.22	1.40
USD/CHF	0.99	1.20
Equity Indices		
S&P 500	2126	3100
Euro Stoxx 50	3055	5300
FTSE A50	9852	27000
Nikkei 225	17425	32000
FTSE 100	6954	10500
Commodities		
Oil (Brent)	47	100
Gold	1274	825
Copper	4841	8000

*See Appendices for methodology and disclaimers.
Source: GSCI, Datastream and Source Research

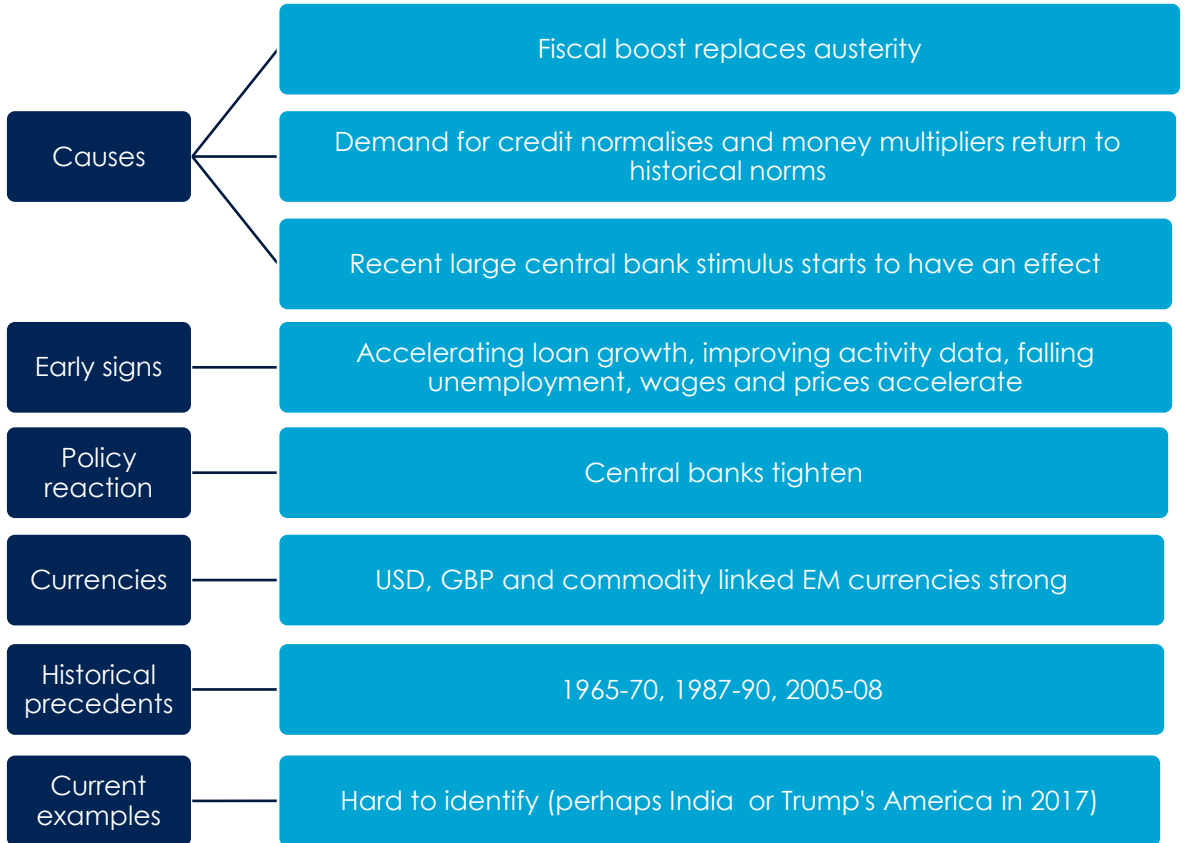**Figure 37 – Projected local currency global returns to end-2017**
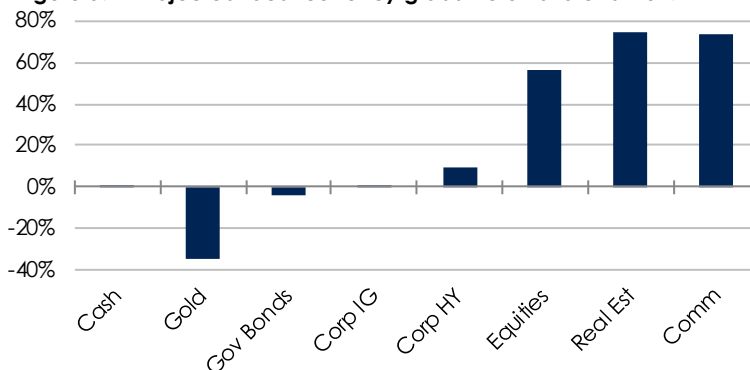
Figure 38 – Optimised allocations

Source: Source Research. See appendices for methodology and disclaimers
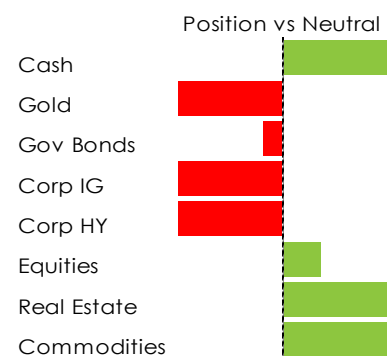
Appendices

Appendix 1: Consensus economic forecasts

Figure 39 – Consensus economic forecasts

GDP Growth (%)				
	2015	**2016**	**2017**	**2018**
World	3.2	2.9	3.2	3.3
US	2.6	1.5	2.1	2.1
Eurozone	2.0	1.5	1.3	1.5
China	6.9	6.7	6.4	6.0
Japan	0.6	0.6	0.8	0.7
UK	2.2	1.8	0.9	1.5
Brazil	-3.8	-3.3	1.0	2.0
Russia	-3.7	-0.6	1.2	1.5
India	7.2	7.5	7.2	7.0
Canada	1.1	1.2	1.8	1.9
Australia	2.4	2.9	2.8	2.9
CPI Change (%)				
	2013	**2014**	**2015**	**2016**
World	2.8	3.0	3.2	3.1
US	0.1	1.2	2.2	2.2
Eurozone	0.0	0.2	1.3	1.5
China	1.4	2.0	2.0	2.1
Japan	0.8	-0.2	0.5	0.9
UK	0.0	0.7	2.3	2.3
Brazil	9.0	8.8	5.4	4.7
Russia	15.6	7.1	5.5	5.0
India	5.9	5.5	5.3	5.3
Canada	1.1	1.6	2.0	2.0
Australia	1.5	1.2	2.0	2.3
Nominal GDP (%)				
	2013	**2014**	**2015**	**2016**
World	6.1	6.0	6.5	6.5
US	2.7	2.7	4.3	4.3
Eurozone	2.0	1.7	2.6	3.0
China	8.4	8.8	8.5	8.2
Japan	1.4	0.4	1.3	1.6
UK	2.2	2.5	3.2	3.8
Brazil	4.9	5.2	6.5	6.8
Russia	11.3	6.5	6.8	6.6
India	13.5	13.5	12.9	12.6
Canada	2.2	2.8	3.8	3.9
Australia	3.9	4.1	4.9	5.3

Source: Bloomberg, except for India (provided by Oxford Economics)

Appendix 2: Yields and returns

Figure 40 – Scenario projected yields and total returns (local currency) to end-2017

| | Current | Projected | | | | | | | | | |
| | | Depression | | Stagflation | | Central | | Benign Deflation | | Boom | |
	Yield	Yield	Return	Yield	Return	Yield	Return	Yield	Return	Yield	Return
Cash	**0.1%**	**-0.2%**	**0.0%**	**-0.1%**	**0.0%**	**0.1%**	**0.1%**	**0.3%**	**0.2%**	**0.6%**	**0.3%**
USD	0.4%	0.0%	0.3%	0.2%	0.4%	0.9%	0.7%	1.2%	0.8%	1.4%	0.9%
EUR	-0.4%	-0.5%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	0.0%	-0.3%
GBP	0.2%	0.0%	0.1%	0.1%	0.2%	0.2%	0.2%	0.5%	0.3%	1.0%	0.5%
JPY	0.0%	-0.4%	-0.2%	-0.2%	-0.1%	-0.2%	-0.1%	-0.2%	-0.1%	0.0%	0.0%
Gov bonds	**0.7%**	**0.1%**	**4.8%**	**0.4%**	**2.9%**	**0.8%**	**0.3%**	**0.8%**	**0.3%**	**1.5%**	**-4.3%**
US	1.4%	0.5%	7.3%	0.8%	5.6%	1.6%	0.2%	1.8%	-0.8%	2.4%	-4.6%
Eurozone	0.4%	0.2%	1.8%	0.4%	0.4%	0.5%	-0.2%	0.4%	0.4%	1.2%	-4.6%
UK	1.2%	0.5%	5.9%	0.7%	4.5%	1.0%	2.6%	1.1%	1.9%	2.1%	-4.2%
Japan	0.0%	-0.6%	3.8%	-0.2%	1.1%	0.0%	0.1%	-0.2%	1.1%	0.5%	-3.5%
EM	6.9%	6.0%	11.9%	6.5%	9.1%	6.5%	9.1%	6.5%	9.1%	8.0%	1.4%
Corp IG	**2.4%**	**5.1%**	**-10.1%**	**2.9%**	**0.0%**	**2.7%**	**0.9%**	**2.5%**	**2.0%**	**2.8%**	**0.5%**
US Dollar	3.0%	5.5%	-8.8%	3.3%	1.5%	3.4%	0.8%	3.3%	1.5%	3.4%	0.8%
Euro	0.8%	4.2%	-15.1%	1.9%	-4.6%	1.0%	0.0%	0.6%	2.0%	1.2%	-1.0%
Sterling	2.9%	5.5%	-9.4%	3.2%	1.2%	2.8%	3.3%	2.6%	4.3%	3.1%	1.7%
Japanese Yen	0.2%	0.4%	-0.8%	0.3%	-0.3%	0.2%	0.3%	-0.2%	2.5%	0.3%	-0.3%
Corp HY	**6.2%**	**16.9%**	**-35.1%**	**11.5%**	**-17.9%**	**7.2%**	**-0.9%**	**5.5%**	**8.2%**	**5.3%**	**9.6%**
US Dollar	6.6%	15.5%	-30.9%	10.8%	-14.2%	7.6%	-1.7%	5.8%	8.7%	5.4%	10.9%
Euro	3.8%	20.2%	-48.2%	12.4%	-30.3%	4.5%	0.1%	3.4%	5.4%	3.7%	4.5%
Equities	**2.6%**	**4.4%**	**-52.4%**	**4.0%**	**-37.6%**	**2.6%**	**4.9%**	**2.4%**	**20.3%**	**2.1%**	**56.5%**
US	2.1%	4.0%	-56.5%	3.5%	-41.3%	2.2%	0.4%	2.0%	12.5%	1.7%	50.9%
Europe ex-UK	3.2%	5.0%	-53.0%	4.5%	-40.7%	3.1%	9.7%	2.8%	35.2%	2.4%	77.8%
UK	3.5%	6.0%	-50.8%	5.5%	-36.6%	3.5%	8.7%	3.2%	24.3%	2.8%	54.4%
Japan	2.0%	3.0%	-45.2%	2.7%	-31.6%	1.8%	16.6%	1.5%	49.1%	1.3%	87.4%
EM	2.9%	5.0%	-51.5%	4.5%	-33.0%	3.0%	4.5%	2.7%	10.4%	2.0%	92.7%
Real Estate	**3.8%**	**5.7%**	**-45.9%**	**5.2%**	**-36.1%**	**3.7%**	**11.3%**	**3.3%**	**36.9%**	**2.7%**	**74.2%**
US	4.0%	6.0%	-47.1%	5.5%	-38.7%	4.0%	11.3%	3.5%	36.2%	3.0%	65.2%
Europe ex-UK	3.5%	6.0%	-47.7%	5.5%	-39.9%	3.4%	12.9%	3.0%	38.3%	2.5%	72.7%
UK	3.7%	6.0%	-54.4%	5.5%	-43.4%	3.7%	8.9%	3.2%	37.4%	2.5%	82.7%
Japan	2.2%	4.0%	-54.4%	3.5%	-44.9%	2.1%	12.3%	1.7%	51.6%	1.0%	167.7%
EM	3.8%	4.5%	-29.4%	4.0%	-6.1%	3.7%	11.9%	3.2%	35.0%	2.5%	103.2%
Commodities	**-**	**-**	**-41.2%**	**-**	**75.8%**	**-**	**-27.0%**	**-**	**-42.7%**	**-**	**74.0%**
Energy	-	-	-57.2%	-	114.1%	-	-35.8%	-	-57.2%	-	114.1%
Ind Metals	-	-	-38.0%	-	65.3%	-	-17.4%	-	-38.0%	-	65.3%
Prec Metals	-	-	17.8%	-	12.3%	-	-13.6%	-	-23.5%	-	-35.2%
Agriculture	-	-	-10.0%	-	-10.0%	-	-10.0%	-	-10.0%	-	-10.0%

Source: Datastream and Source Research. See appendices for methodology and disclaimers.

Figure 41 – Scenario projected yields and total returns (USD) to end-2017

	Current	Projected									
		Depression		Stagflation		Central		Benign Deflation		Boom	
	Yield	Yield	Return	Yield	Return	Yield	Return	Yield	Return	Yield	Return
Cash	**0.1%**	**-0.2%**	**11.0%**	**-0.1%**	**6.8%**	**0.1%**	**-0.2%**	**0.3%**	**-2.0%**	**0.6%**	**-3.2%**
USD	0.4%	0.0%	0.3%	0.2%	0.4%	0.9%	0.7%	1.2%	0.8%	1.4%	0.9%
EUR	-0.4%	-0.5%	26.9%	-0.4%	17.9%	-0.4%	-4.8%	-0.4%	-9.3%	0.0%	-13.7%
GBP	0.2%	0.0%	-10.0%	0.1%	-5.9%	0.2%	6.4%	0.5%	10.6%	1.0%	14.9%
JPY	0.0%	-0.4%	30.8%	-0.2%	16.3%	-0.2%	-3.0%	-0.2%	-8.9%	0.0%	-12.7%
Gov bonds	**0.7%**	**0.1%**	**19.2%**	**0.4%**	**12.0%**	**0.8%**	**-1.5%**	**0.8%**	**-3.8%**	**1.5%**	**-9.6%**
US	1.4%	0.5%	7.3%	0.8%	5.6%	1.6%	0.2%	1.8%	-0.8%	2.4%	-4.6%
Eurozone	0.4%	0.2%	29.7%	0.4%	18.9%	0.5%	-4.6%	0.4%	-8.5%	1.2%	-17.5%
UK	1.2%	0.5%	-4.9%	0.7%	-1.8%	1.0%	8.9%	1.1%	12.4%	2.1%	9.5%
Japan	0.0%	-0.6%	36.0%	-0.2%	17.7%	0.0%	-2.9%	-0.2%	-7.9%	0.5%	-15.7%
EM	6.9%	6.0%	-10.5%	6.5%	9.1%	6.5%	-1.8%	6.5%	9.1%	8.0%	21.7%
Corp IG	**2.4%**	**5.1%**	**-4.6%**	**2.9%**	**4.1%**	**2.7%**	**0.2%**	**2.5%**	**0.2%**	**2.8%**	**-2.3%**
US Dollar	3.0%	5.5%	-8.8%	3.3%	1.5%	3.4%	0.8%	3.3%	1.5%	3.4%	0.8%
Euro	0.8%	4.2%	8.2%	1.9%	12.9%	1.0%	-4.3%	0.6%	-7.1%	1.2%	-14.4%
Sterling	2.9%	5.5%	-18.6%	3.2%	-4.9%	2.8%	9.6%	2.6%	15.0%	3.1%	16.3%
Japanese Yen	0.2%	0.4%	29.9%	0.3%	16.1%	0.2%	-2.7%	-0.2%	-6.5%	0.3%	-12.9%
Corp HY	**6.2%**	**16.9%**	**-31.0%**	**11.5%**	**-14.7%**	**7.2%**	**-2.3%**	**5.5%**	**5.5%**	**5.3%**	**5.6%**
US Dollar	6.6%	15.5%	-30.9%	10.8%	-14.2%	7.6%	-1.7%	5.8%	8.7%	5.4%	10.9%
Euro	3.8%	20.2%	-31.5%	12.4%	-16.3%	4.5%	-4.4%	3.4%	-4.1%	3.7%	-9.6%
Equities	**2.6%**	**4.4%**	**-51.0%**	**4.0%**	**-37.1%**	**2.6%**	**3.5%**	**2.4%**	**18.4%**	**2.1%**	**54.4%**
US	2.1%	4.0%	-56.5%	3.5%	-41.3%	2.2%	0.4%	2.0%	12.5%	1.7%	50.9%
Europe ex-UK	3.2%	5.0%	-40.1%	4.5%	-29.7%	3.1%	4.9%	2.8%	23.1%	2.4%	53.8%
UK	3.5%	6.0%	-55.8%	5.5%	-40.4%	3.5%	15.4%	3.2%	37.0%	2.8%	76.6%
Japan	2.0%	3.0%	-28.2%	2.7%	-20.4%	1.8%	13.2%	1.5%	35.9%	1.3%	63.7%
EM	2.9%	5.0%	-61.2%	4.5%	-33.0%	3.0%	-5.9%	2.7%	10.4%	2.0%	131.2%
Real Estate	**3.8%**	**5.7%**	**-45.0%**	**5.2%**	**-34.4%**	**3.7%**	**9.5%**	**3.3%**	**35.7%**	**2.7%**	**81.0%**
US	4.0%	6.0%	-47.1%	5.5%	-38.7%	4.0%	11.3%	3.5%	36.2%	3.0%	65.2%
Europe ex-UK	3.5%	6.0%	-33.4%	5.5%	-28.8%	3.4%	7.9%	3.0%	26.0%	2.5%	49.4%
UK	3.7%	6.0%	-59.0%	5.5%	-46.8%	3.7%	15.6%	3.2%	51.5%	2.5%	108.9%
Japan	2.2%	4.0%	-40.3%	3.5%	-35.8%	2.1%	9.0%	1.7%	38.1%	1.0%	133.8%
EM	3.8%	4.5%	-43.5%	4.0%	-6.1%	3.7%	0.7%	3.2%	35.0%	2.5%	143.8%
Commodities	**-**	**-**	**-41.2%**	**-**	**75.8%**	**-**	**-27.0%**	**-**	**-42.7%**	**-**	**74.0%**
Energy	-	-	-57.2%	-	114.1%	-	-35.8%	-	-57.2%	-	114.1%
Ind Metals	-	-	-38.0%	-	65.3%	-	-17.4%	-	-38.0%	-	65.3%
Prec Metals	-	-	17.8%	-	12.3%	-	-13.6%	-	-23.5%	-	-35.2%
Agriculture	-	-	-10.0%	-	-10.0%	-	-10.0%	-	-10.0%	-	-10.0%

Source: Datastream and Source Research. See appendices for methodology and disclaimers.

Appendix 3: Assumptions

Figure 42 – Fixed income assumptions (end-2017)

	US	Eurozone	UK	Japan	China
Central bank rates					
Depression	0.10	-0.50	0.00	-0.40	2.50
Stagflation	0.25	-0.40	0.10	-0.20	3.00
Central	1.00	-0.40	0.25	-0.20	3.50
Benign Deflation	1.25	-0.40	0.50	-0.20	4.00
Boom	1.50	0.00	1.00	0.00	4.50
Sovereign spreads vs rates					
Depression	50	70	50	-20	-
Stagflation	60	80	60	0	-
Central	70	90	75	15	-
Benign Deflation	60	80	60	0	-
Boom	100	120	110	50	-
Corporate IG spreads vs sovereign					
Depression	500	400	500	100	-
Stagflation	250	150	250	50	-
Central	180	50	180	25	-
Benign Deflation	150	25	150	0	-
Boom	100	0	100	-20	-
Corporate HY spreads vs sovereign					
Depression	1500	2000	-	-	-
Stagflation	1000	1200	-	-	-
Central	600	400	-	-	-
Benign Deflation	400	300	-	-	-
Boom	300	250	-	-	-
HY default rates					
Depression	14%	12%	-	-	-
Stagflation	10%	10%	-	-	-
Central	7%	2%	-	-	-
Benign Deflation	3%	1%	-	-	-
Boom	2%	0%	-	-	-
HY recovery rates					
Depression	25%	25%	-	-	-
Stagflation	35%	35%	-	-	-
Central	35%	45%	-	-	-
Benign Deflation	50%	60%	-	-	-
Boom	60%	70%	-	-	-

Source: Source Research

Figure 43 – Equities and real estate assumptions (to end-2017)

	US	Europe ex-UK	UK	Japan	EM
Equities dividend growth					
Depression	-20%	-30%	-20%	-20%	-20%
Stagflation	-5%	-20%	-5%	-10%	0%
Central	3%	3%	5%	3%	5%
Benign Deflation	5%	15%	10%	10%	0%
Boom	20%	30%	20%	20%	30%
Equities dividend yield					
Depression	4.0%	5.0%	6.0%	3.0%	5.0%
Stagflation	3.5%	4.5%	5.5%	2.7%	4.5%
Central	2.2%	3.1%	3.5%	1.8%	3.0%
Benign Deflation	2.0%	2.8%	3.2%	1.5%	2.7%
Boom	1.7%	2.4%	2.8%	1.3%	2.0%
Real estate dividend growth					
Depression	-25%	-15%	-30%	-20%	-20%
Stagflation	-20%	-10%	-20%	-15%	-5%
Central	7%	6%	5%	5%	5%
Benign Deflation	15%	15%	15%	15%	10%
Boom	20%	20%	20%	20%	30%
Real estate dividend yield					
Depression	6.0%	6.0%	6.0%	4.0%	4.5%
Stagflation	5.5%	5.5%	5.5%	3.5%	4.0%
Central	4.0%	3.4%	3.7%	2.1%	3.7%
Benign Deflation	3.5%	3.0%	3.2%	1.7%	3.2%
Boom	3.0%	2.5%	2.5%	1.0%	2.5%

Source: Source Research

Appendix 4: Global valuations vs history

Figure 44 – Regional yields within historical ranges
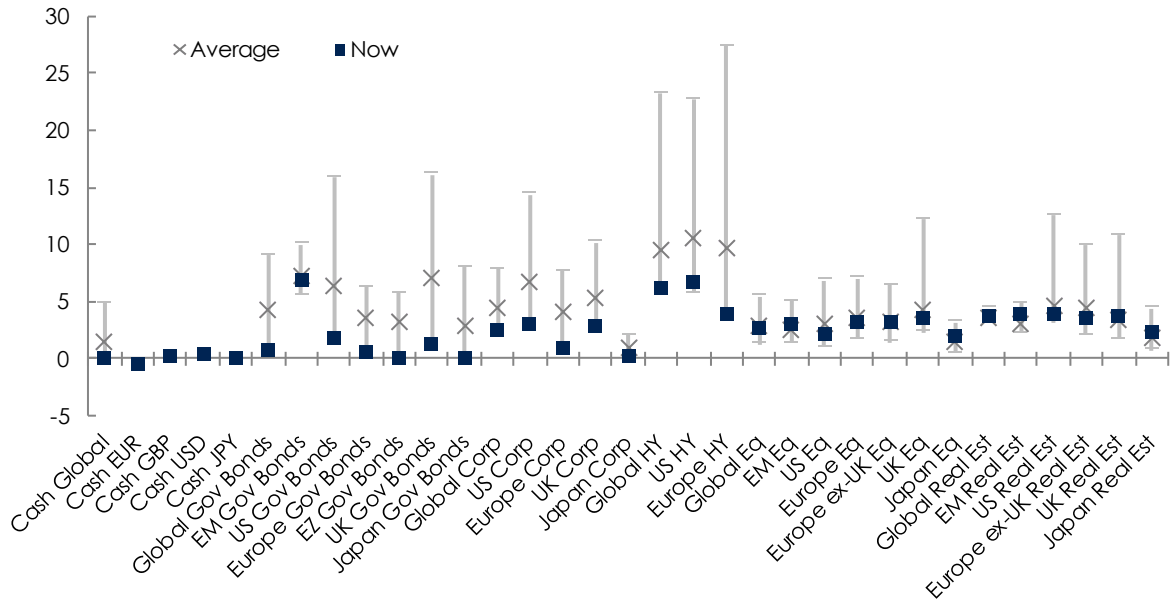
Source: BAML, FTSE, Datastream, Source Research

Appendix 5: Methodology for asset allocation, expected returns and optimal portfolios

Portfolio construction process

The optimal portfolios are simulated and not real. We use optimisation processes to guide our allocations around "neutral" and within prescribed policy ranges based on our estimations of expected returns and using historical covariance information. This guides the allocation to global asset groups (equities, government bonds etc), which is the most important level of decisions. For the purposes of this document the optimal portfolios are constructed with a horizon to end-2017. This scenario approach should not be mistaken with the Source Multi Asset Portfolio which is published on a quarterly basis in The Big Picture (see here for the most recent edition).

Which asset classes?

We look for investibility, size and liquidity. With that in mind, we have chosen to include: equities, bonds (government, corporate investment grade and corporate high-yield), REITs to represent real estate, commodities and cash (all across a range of geographies). We use cross-asset correlations to determine which decisions are the most important.

Neutral allocations and policy ranges

We use market capitalisation in USD for major benchmark indices to calculate neutral allocations. For commodities, we use industry estimates for total ETP market cap + assets under management in hedge funds + direct investments. We use an arbitrary 5% for the combination of cash and gold. We impose diversification by using policy ranges for each asset category (the range is usually symmetric around neutral).

Expected returns

The process for estimating expected returns is based upon yield (except commodities, of course). After analysing how yields vary with the economic cycle, and where they are situated within historical ranges, we forecast the direction and amplitude of moves during 2017. Cash returns are calculated assuming a straight-line move in short term rates towards our targets (with, of course, no capital gain or loss). Bond returns assume a straight-line progression in yields, with capital gains/losses predicated upon constant maturity (effectively supposing constant turnover to achieve that). Forecasts of corporate and high yield spreads are based upon our view of the economic cycle. Coupon payments are added to give total returns. Equity and REIT returns are based on dividend growth assumptions. We calculate total returns by applying those growth assumptions and adding the forecast dividend yield. No such metrics exist for commodities; therefore we base our projections on US CPI-adjusted real prices relative to their long-term averages and views on the economic cycle.

Optimising the portfolio

Using a covariance matrix based on monthly local currency total returns for the last 5 years and we run an optimisation process that maximises the Sharpe Ratio. The optimiser is based on the Markowitz model.

Currency hedging

We adopt a cautious approach when it comes to currency hedging as currency movements are notoriously difficult to accurately predict and sometimes hedging can be costly. Also, some of our asset allocation choices are based on currency forecasts. We use an amalgam of central bank rate forecasts, policy expectations and real exchange rates relative to their historical averages to predict the direction and amplitude of currency moves.

Appendix 5: Methodology for sector classifications, valuations, momentum and weighting

Multiple regression analysis

We have run a multiple regression analysis in both regions to examine how macroeconomic factors influence sector valuations. We have used the valuation ratio relative to market (cyclically-adjusted price/cash flow in the US and cyclically-adjusted dividend yield in Europe) as the dependent variable and have run the regressions with the following independent variables:

- **US (monthly series since 31/01/1990):**
    - **1-year change in:** consumer price index, average hourly earnings
    - **The level of:** real oil price (US CPI adjusted), real copper price (US CPI adjusted), ISM manufacturing index, consumer confidence index (conference board), real USD index (US CPI adjusted), unemployment rate, yield curve (10y-2y yields), net debt/EBITDA (only for non-financial sectors), EBITDA margin
- **Europe (monthly series since 31/01/1991):**
    - **1-year change in:** German and UK consumer price indices (average change across both)
    - **The level of:** real oil price (US CPI adjusted), real copper price (US CPI adjusted), IFO business climate index, European Union consumer sentiment index, average of the German and UK yield curves (10y-2y yields), average of the German and UK unemployment rates, net debt/EBITDA (only for non-financial sectors), return on equity

This analysis shows us which independent variables have a statistically significant relationship with sector valuation ratios. In addition, the regression coefficients tell us how much each independent variable influences those ratios. Finally, we use those coefficients to calculate what the valuation ratios should be, based on the model, and compare them to currently observed valuations. In theory, this allows us to determine whether a sector is undervalued or overvalued based on the macroeconomic factors we have used.

Sector classification

We use a sector classification created by merging the two main systems used by Standard & Poors (S&P) for the US and Stoxx for Europe. We have decided to classify our 10 top level industries using categories that most closely resemble the Global Industry Classification Standard (GICS) and at the level below that (super sectors) we are using the Industry Classification Benchmark (ICB). The former is used for the S&P 500 index and the latter for the Stoxx 600, our benchmark indices for this document. The two systems overlap in most cases and the only material difference seems to be in the consumer sectors. Therefore, we define consumer staples as the aggregate of personal & household goods and food & beverage, while consumer discretionary includes automobiles & parts, media, retail and travel & leisure. For the rest, we assume 100% overlap for the corresponding top level sectors.

Cyclically-adjusted valuation ratios

This consists of using a 10-year moving average to construct valuation ratios, rather than the most recently available data. Price/earnings is usually calculated as the most recent price divided by the most recent year's earnings. The cyclically-adjusted price/earnings (CAPE) is calculated as the latest price divided by the average of earnings during the last 10 years. We estimate sector-level earnings per share (EPS) by dividing the price index by the sector price/earnings ratio. The same process is used to calculate cyclically-adjusted versions of price/book value, price/cash flow and dividend yield. The advantage of such an approach is that it eliminates cyclical swings in earnings. We use ratios calculated by Datastream for price/earnings, dividend yield, price/book value, price/cash flow and return on equity.

We use the same methodology to construct cyclically-adjusted ratios for every day that our data history allows. Earnings and dividend series start in 1973, so CAPE and CADY series begin in 1983. Cash flow and book value data start in 1980, so CAPCF and CAPBV start in 1990. Comparisons with historical norms are expressed as standard deviations from historical means.

Sector allocations

For the purposes of this 2017 Outlook document we describe allocations to a number of sectors depending upon the scenario being considered. These should not be viewed as the official Source sector selections (these are outlined on a quarterly basis in Source Sector Selector) but rather an expression of certain preferences under different scenarios, as described in the main body of this document.

"Overweight" suggests that we prefer to hold more of the given sector than suggested by the market capitalisation weighted "neutral" position. "Underweight" suggests we prefer to hold less of the given sector than suggested by the market capitalisation weighted "neutral" position. "Neutral" suggests a holding in line with the market capitalisation weighted benchmark.

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