

# Schroders

## Seven-year asset class forecast returns, 2015 update

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### Introduction

Our seven-year returns forecast builds on the same methodology which has been applied in previous years, as explained in the appendix to this document; and have been updated in line with current market conditions and changes to the forecasts provided by the Global Economics team. This document compares our current return forecasts to those last published in July 2014.

### Summary

The table below summarises our asset class forecasts for the next seven years. Note the generally negative real returns for cash and bonds, against (in some cases extremely) positive real equity returns. Most credit and alternative investments should also provide positive returns after inflation. Pacific ex Japan equities offer the highest real returns of any asset.

**Table 1: Seven-year asset class forecasts (2015 – 2022)**

	Currency	Nominal	Inflation	Real
<b>Cash</b>			% p.a.	
US	USD	1.8	2.0	-0.2
UK	GBP	2.2	2.2	0.0
Euro	EUR	1.2	1.4	-0.2
Japan	JPY	0.3	1.2	-0.9
<b>Bonds</b>				
US	USD	2.9	2.0	0.9
UK	GBP	1.4	2.2	-0.8
Euro	EUR	-1.1	1.4	-2.5
<b>Equity</b>				
US (S&P 500)	USD	3.0	2.0	1.0
UK (FT all share)	GBP	5.1	2.2	2.8
Europe ex. UK (Datastream)	EUR	5.2	1.4	3.8
Japan (Datastream)	JPY	3.0	1.2	1.8
Pacific ex. Japan (Datastream)	Local	13.9	3.4	10.2
Emerging Markets (Datastream)	Local	13.5	5.1	8.1
MSCI World	Local	4.2	1.9	2.3
<b>Credit</b>				
US HY	USD	4.2	2.0	2.1
US IG	USD	4.9	2.0	2.9
UK IG	GBP	3.7	2.2	1.5
EU IG	EUR	0.7	1.4	-0.7



**Alternatives**

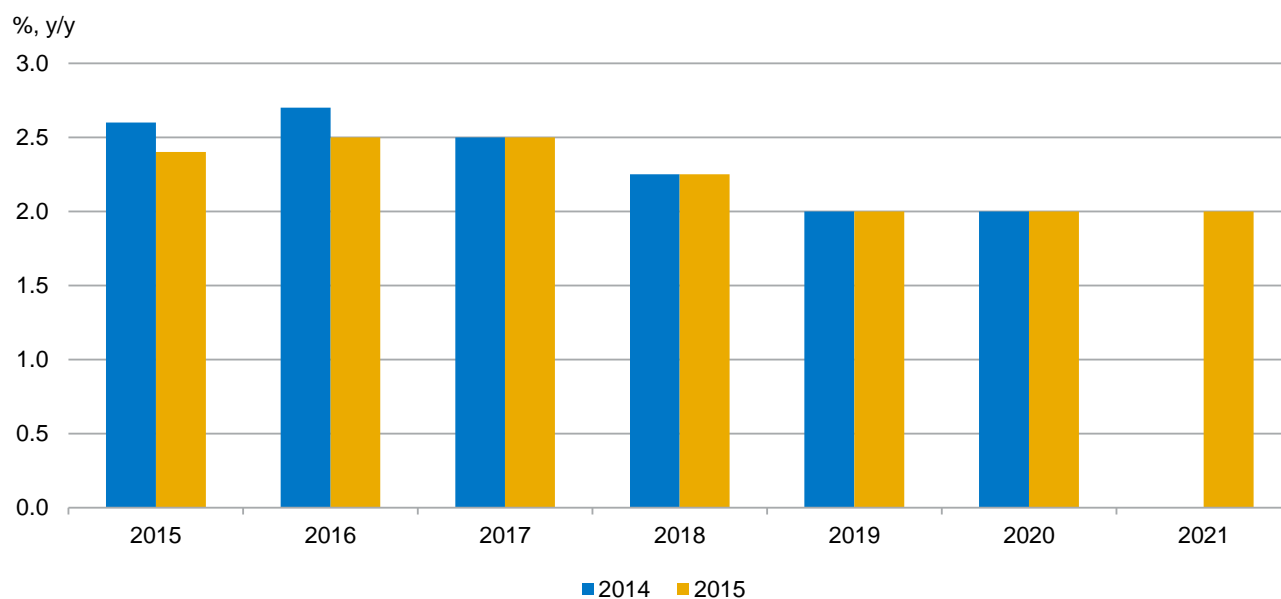
EMD\$	USD	6.4	2.0	4.3
Commodities	USD	3.3	2.0	1.3
Private Equity	GBP	9.2	2.0	7.1
Hedge Funds	USD	4.2	2.0	2.2

Source: Schroders Economics Group, July 2015.

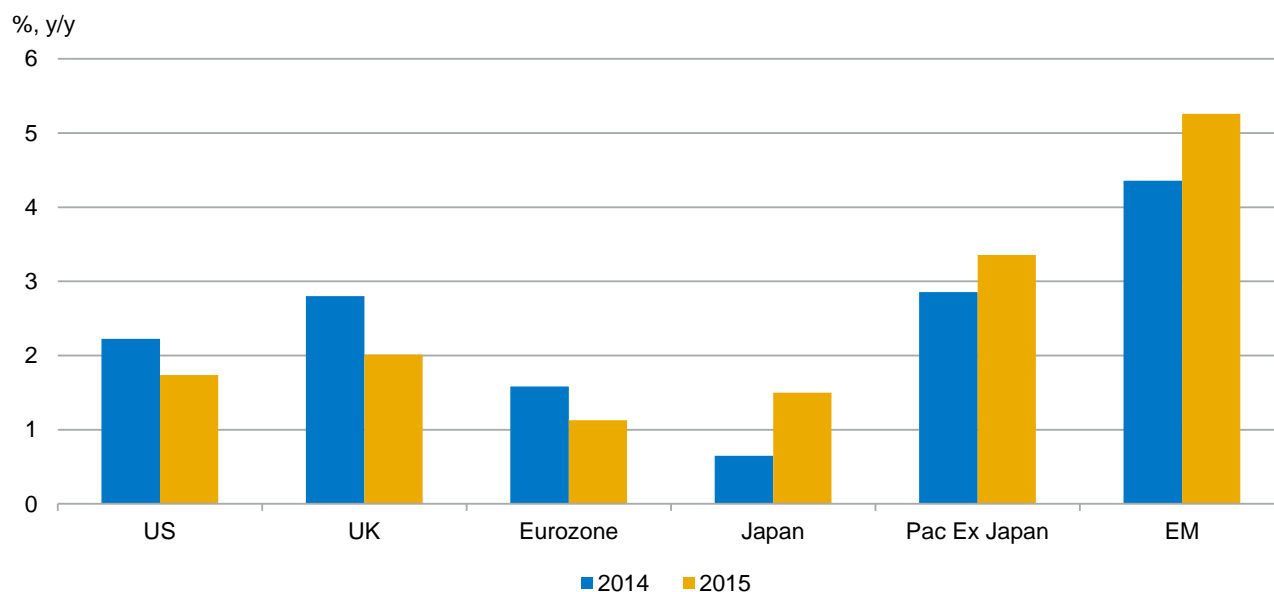
**Macro outlook**

Our overall growth forecast for the next seven years shows a recovery in the world economy, although one which is sub-par by past standards. We have downgraded our short-term growth forecasts for the US (chart 1) to reflect a more pessimistic outlook for labour force and productivity growth. Demographics are expected to weigh on the participation rate, and we do not see productivity growth returning to pre-crisis rates.

After deflationary pressure from a slowing Chinese economy and softer commodity prices, a lack of reform in a number of major emerging market economies has created supply side bottlenecks and contributed to a persistence of inflation. Emerging markets (EM) economies will have to implement structural reform to tackle their inflation problem, notably Brazil. Japanese inflation has been revised up on the impact of Abenomics, while cheaper oil and commodities have led to downward revisions in the rest of developed markets (DM) (chart 2).

**Chart 1: US growth forecast (2015 – 20 vs. 2014 – 2021)**

Source: Schroders Economics Group, July 2015.

**Chart 2: Inflation forecast (2015 – 20 vs. 2014 – 2021)**

Source: Schroders Economics Group July 2015.

## Cash

Our forecasts for cash and bonds are based on the projected path of rates and yields over the next seven years. Real returns are improved compared to those forecasts made in 2013, with the largest upgrades in the eurozone and Japan, driven chiefly by lower inflation, though higher rates in Europe also contribute. Nonetheless, overall real cash returns remain negative in all regions bar the UK.

**Table 2: Cash return forecasts**

	2015 – 2022			Change from 2014		
	Nominal Return	CPI	Real Return	Nominal Return	CPI	Real Return
<b>Cash</b>						
US	1.8	2.0	-0.2	-0.4	-0.6	0.2
UK	2.2	2.2	0.0	-0.1	-0.3	0.2
Euro	1.2	1.4	-0.2	0.2	-0.4	0.5
Japan	0.3	1.2	-0.9	-0.2	-0.5	0.4

Source: Schroders Economics Group, July 2015.

## Government bonds

We expect real returns on US Treasuries to rise from our previous forecast levels, partly due to lower inflation, though nominal returns are also higher thanks to the recent rise in yields and our expectations of a lower terminal rate in the US. Lower returns are forecast for the UK for the opposite reason; yields have fallen markedly since last year and the rate hike has been pushed out. The same is true for the eurozone in the wake of quantitative easing (QE) by the European Central bank (ECB). Expectations of divergent monetary policy have resulted in divergent real returns; US bonds are forecast to generate a positive real return, against negative returns in the UK and Europe.

**Table 3: Government bond return forecasts**

% p.a.	2015 – 2025			Change from 2015		
	Nominal	Inflation	Real	Nominal	Inflation	Real
<b>Bonds</b>						
US	2.9	2.0	0.9	0.4	-0.6	1.0

UK	1.4	2.2	-0.8	-1.0	-0.3	-0.7
Euro	-1.1	1.4	-2.5	-0.7	-0.4	-0.3

Source: Schroders Economics Group, July 2015.

## Equities

**Table 4: Equity assumptions**

Equity Market	Trend growth of real EPS (p.a.)	PE (t)	Terminal PE
US (S&P 500)	2.4%	20.4	18.5
Japan (DS)	5.1%	18.4	19.5
Pacific ex. Japan (DS)	4.3%	13.6	16.0
Emerging markets (DS)	4.0%	14.6	13.5

Source: Schroders Economics Group, July 2015.

We model equity returns by assuming that real earnings per share (EPS) returns to its long-run trend level by the end of the seven-year period, whilst the valuation metric (price/earnings) returns to a long-run fair value. Four years ago, we considered the effect of a world in which growth is structurally lower, reducing the trend rate of real EPS growth by between 33% (US and EM) and 24% (Pacific ex Japan). We have also reduced trend EPS growth for EM to 4.0%, as China begins to transition away from its investment-led growth model, with negative implications for commodity exporters. China's economy is now slowing, despite government stimulus efforts, and a return to past growth rates seems unlikely. A more recent structural change has been in Japan, where Abenomics and quantitative and qualitative easing (QQE) have driven EPS higher. We have applied a Christiano-Fitzgerald filter in an effort to extract the new terminal growth rate. A fuller discussion can be found in the appendix.

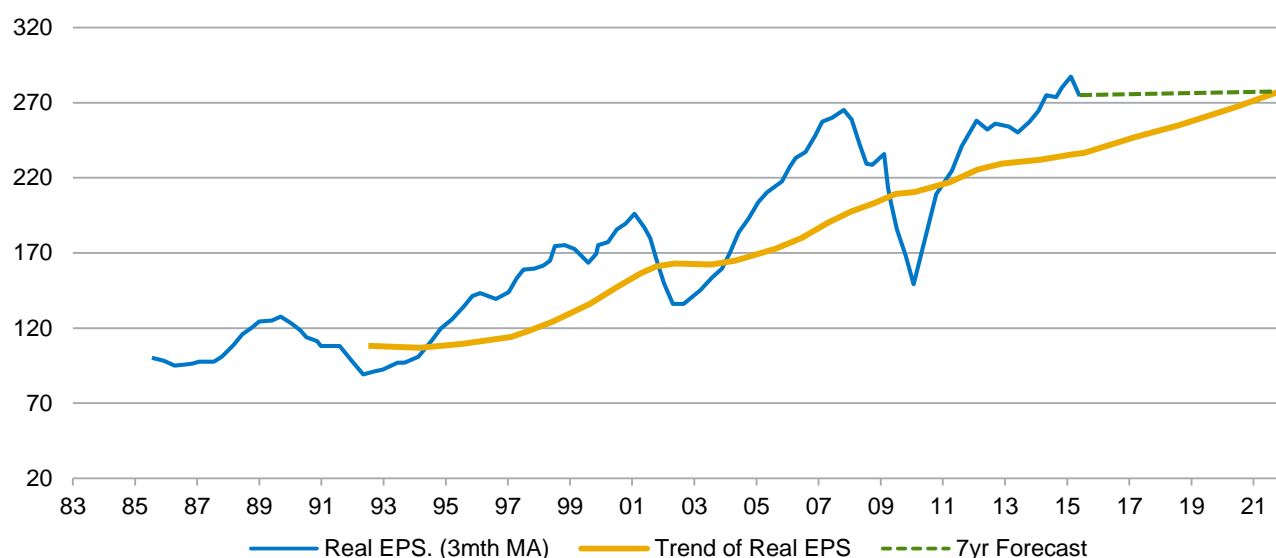
**Table 5: Equity market return forecasts**

% p.a.	2015 – 2022			Change from 2014		
	Nominal	Inflation	Real	Nominal	Inflation	Real
<b>Equity</b>						
US (S&P500)	3.0	2.0	1.0	-0.8	-0.6	-0.2
UK (FT all share)	5.1	2.2	2.8	-0.4	-0.3	-0.1
Europe ex.UK (DS)	5.2	1.4	3.8	-0.5	-0.4	-0.1
Japan (DS)	3.0	1.2	1.8	-0.4	-0.5	0.1
Pacific ex.Japan (DS)	13.9	3.4	10.2	1.0	0.0	1.0
Emerging markets (DS)	13.5	5.1	8.1	-1.0	-0.2	-0.7
MSCI World	4.2	1.9	2.3	-0.6	-0.5	-0.1

Source: Schroders Economics Group, July 2015.

With EPS significantly above trend, we expect almost zero EPS growth in the US (chart 3). US valuations, measured by the price-to-earnings (PE) ratio of the market relative to its history, have become more elevated since 2014. In general, market valuations are up from this time last year, the US recovery appears to be on track, growth has picked up in the UK, policy has turned more supportive in Europe and Abenomics has spurred a rally in Japan – a very similar environment to last year. While a below trend PE is positive for future equity returns due to the implied re-rating, the improvement in PE ratios brings them closer to their trend levels, which is less positive for equity returns. Nonetheless, equity returns remain positive, and are set to continue to outperform government bonds and cash – though in the US, equities only just maintain their edge.

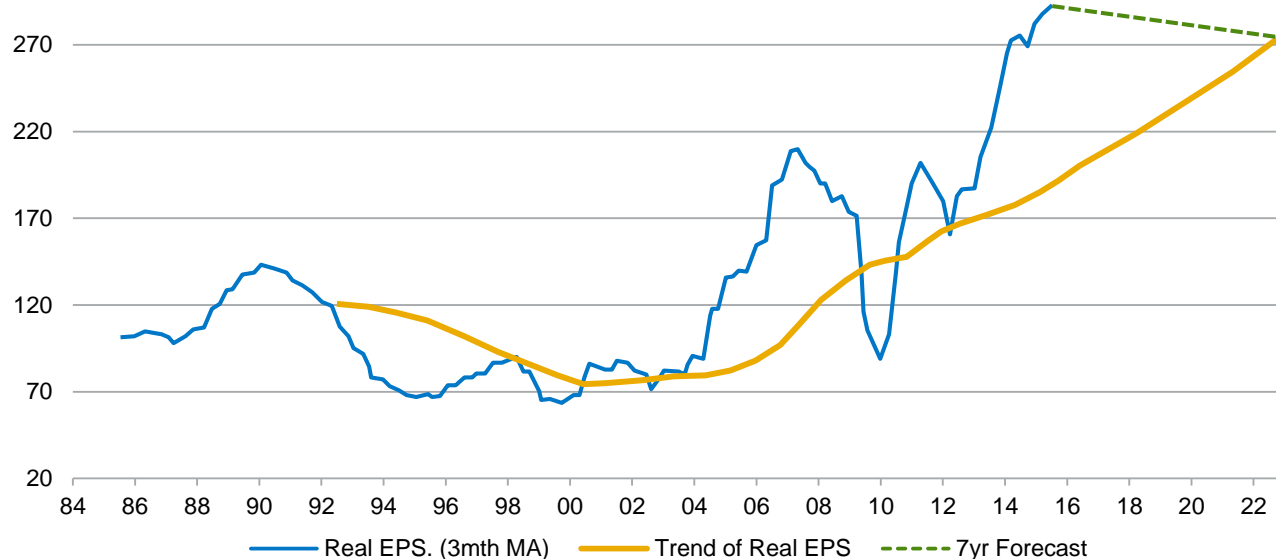
**Chart 3: US earnings relative to trend**



Source: Thomson Datastream, Schroders Economics Group, July 2015.

In Japan, equity valuations are much closer to trend and so have less scope for further gains. In addition, we have seen a sharp increase in real EPS (chart 4), implying a greater decline as it returns to trend. However, as we have upwardly revised our estimate of long-run EPS growth, we end up with a slightly higher return to Japanese equities than in 2014.

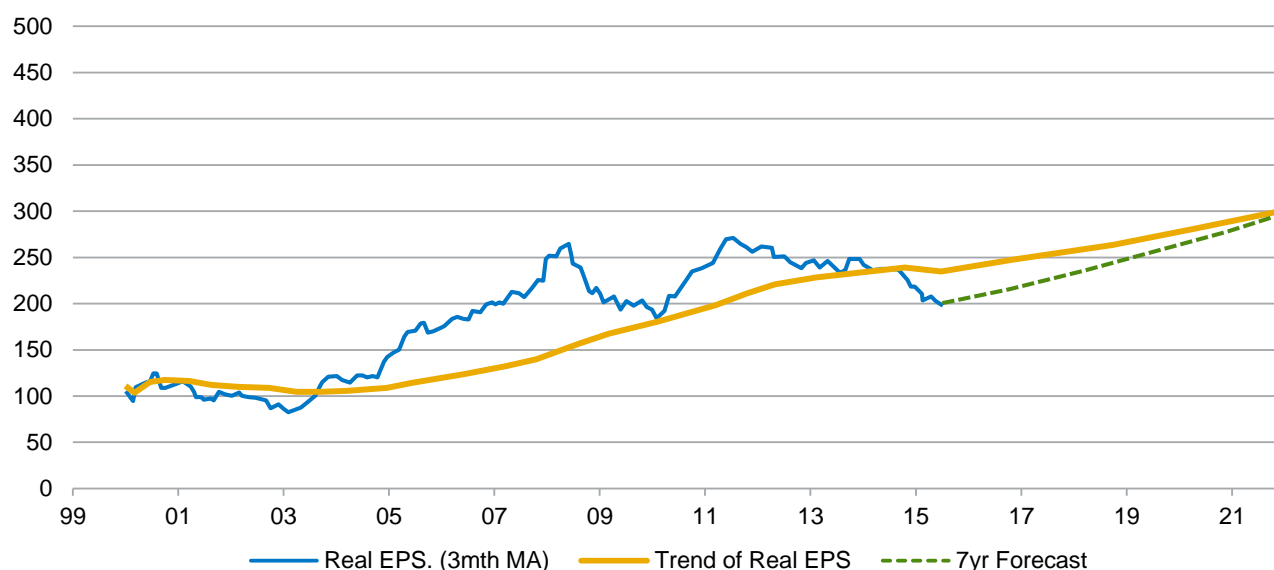
**Chart 4: Japan earnings relative to trend**



Source: Thomson Datastream, Schroders Economics Group, July 2015.

Our downgrade of trend EPS growth for EM in 2013 was based on the belief that the EM growth story is structurally weaker now that China’s investment-led model is reaching the limits of its ability to generate growth. Demand for commodities, which had supported growth in many EM markets, will be much slower in the future. Sure enough, this has played out as expected since the adjustments were made. Meanwhile, EPS looks to be slightly below current trend levels, so a return to trend EPS growth implies accelerated EPS growth over the medium term (chart 5). Valuations, based on PE, are above trend, which weighs on returns over the forecast period.

### Chart 5: Emerging market earnings relative to trend



Source: Thomson Datastream, Schroders Economics Group, July 2015.

### Credit

Credit return forecasts are calculated as a spread over a relevant government bond, and so our assumptions for Treasury yields have increased our credit return assumptions for US investment grade credit. US credit now offers a higher return than US equities as a result. Similarly, downgrades to the outlook for UK and eurozone bonds have a knock-on effect for investment grade credit in those markets.

**Table 6: Credit market return forecasts**

% p.a.	2015 – 2022			Change from 2014		
	Nominal	Inflation	Real	Nominal	Inflation	Real
<b>Credit</b>						
US HY	4.2	2.0	2.1	0.4	-0.6	1.0
US IG	4.9	2.0	2.9	0.4	-0.6	1.0
UK IG	3.7	2.2	1.5	-0.9	-0.3	-0.7
EU IG	0.7	1.4	-0.7	-0.7	-0.4	-0.3

Source: Schroders Economics Group, July 2015.

### Alternatives

Assumed emerging markets dollar debt (EMD\$) returns (table 7) have risen since last July, thanks to higher forecast returns on US Treasuries. The forecast return on commodities has edged lower due to lower US inflation. Our methodology assumes that hedge funds and private equity generate equity-like returns, which we proxy with the MSCI World return. So with equity returns lower, private equity and hedge fund nominal returns fall by the same amount, but real returns are supported by lower inflation.

**Table 7: Alternative asset class return forecasts**

% p.a.	2015 – 2022			Change from 2014		
	Nominal	Inflation	Real	Nominal	Inflation	Real
<b>Alternatives</b>						
EMD\$	6.5	2.0	4.3	0.4	-0.6	1.0
Commodities	3.3	2.0	1.3	-1.0	-0.6	-0.4
Private Equity	9.2	2.0	7.1	-0.6	-0.6	0.1

Hedge Funds	4.2	2.0	2.2	-0.6	-0.6	0.0
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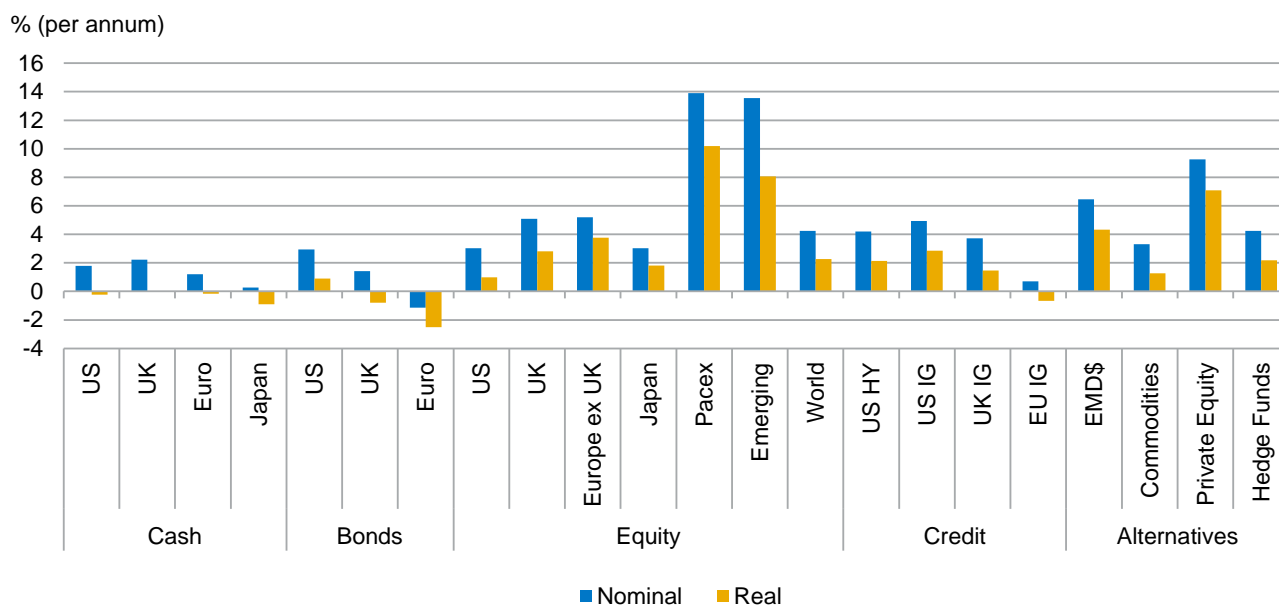
Source: Schroders Economics Group, July 2015.

## Conclusions

As in previous years, investors looking for positive real returns should look to equity, credit and alternatives, with Pacific ex Japan equities promising the highest real returns, and EM not far behind. However, an important caveat is the higher level of volatility associated with EM equities when compared to the S&P or FTSE. As always, there is a risk-reward trade-off. Cash and government bonds would act as a hedge against equity market volatility, but are likely to deliver returns below inflation over the medium term.

## Appendix 1 – Forecast overview

Chart 7: 7 year return forecasts (2015 – 2022)



Source: Schroders Economics Group, July 2015.

Table 8: Change from last update

Change (2015 – 2014)			
	Nominal	Inflation	Real
<b>Cash</b>			
US	-0.4	-0.6	0.2
UK	-0.1	-0.3	0.2
Euro	0.2	-0.4	0.5
Japan	-0.2	-0.5	0.4
<b>Bonds</b>			
US	0.4	-0.6	1.0
UK	-1.0	-0.3	-0.7
Euro	-0.7	-0.4	-0.3
<b>Equity</b>			
US (S&P 500)	-0.8	-0.6	-0.2
UK (FT all share)	-0.4	-0.3	-0.1
Europe ex. UK (DS)	-0.5	-0.4	-0.1
Japan (DS)	-0.4	-0.5	0.1
Pacific ex. Japan (DS)	1.0	0.0	1.0
Emerging Markets (DS)	-1.0	-0.2	-0.7
MSCI World	-0.6	-0.5	-0.1
<b>Credit</b>			
US HY	0.4	-0.6	1.0
US IG	0.4	-0.6	1.0
UK IG	-0.9	-0.3	-0.7



EU IG	-0.7	-0.4	-0.3
<b>Alternatives</b>			
EMD\$	0.4	-0.6	1.0
Commodities	-1.0	-0.6	-0.4
Private Equity	-0.6	-0.6	0.1
Hedge Funds	-0.6	-0.6	0.0

Source: Schroders Economics Group, July 2015.

## Appendix 2 – Forecast methodology

### Cash

Cash returns represent the annualised cash return anticipated over the next seven years based on an explicit interest rate profile.

### Government Bonds

Government bond represent the annualised return anticipated over the next seven years based on explicit year-end government bond yields.

### Credit

#### High yield

Credit returns are based on our seven-year US growth forecast. There is a good relationship between US growth and high yield spreads. We use this relationship to forecast the evolution of spreads over seven years. We combine this with our government bond forecasts to provide an estimate of high yield returns.

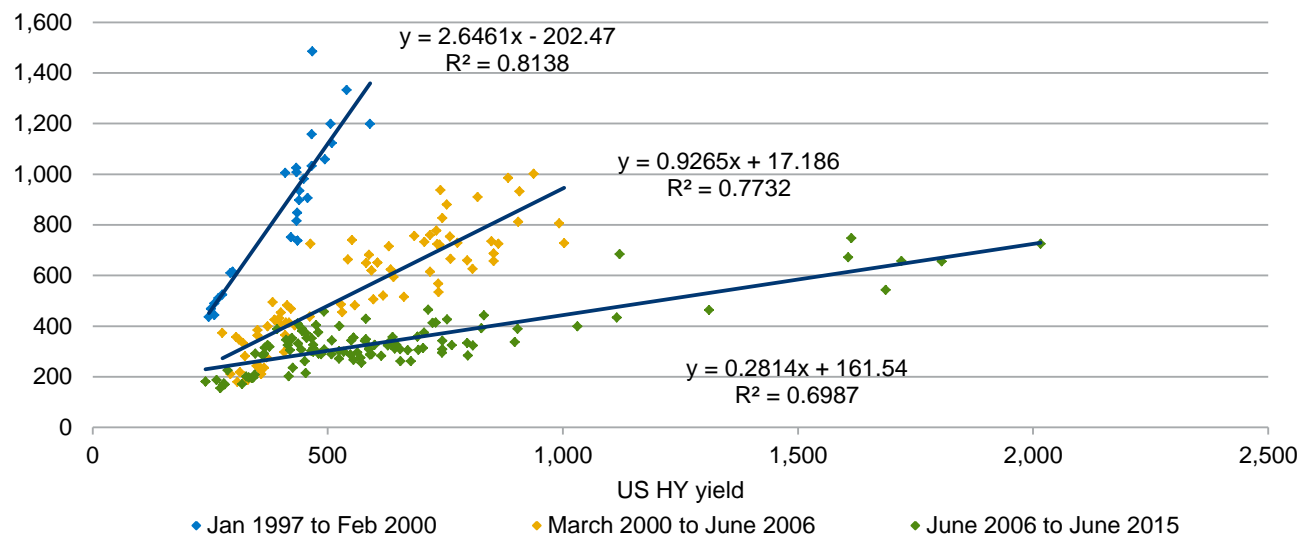
#### Investment grade

Investment grade spreads track high yield spreads closely. We use this relationship to forecast investment grade spreads. We combine this with our government bond forecasts to provide an estimate of investment grade returns.

### EMD\$

Emerging market debt also has a close relationship with high yield spreads. However this relationship has gone through three distinct phases:

1. 1997 – 2000 where there were problems in the EMD market as several countries went through a restructure or default
2. 2000 – 2006 where both high yield and EMD markets functioned normally
3. 2006 – 2014 where high yield spreads went from being very tight to an historic wide, whereas EMD spreads remained reasonably well supported



Source: Thomson Datastream, Schroders Economics Group, July 2015.

We believe that with the increasing quality of EMD debt (countries are gradually being upgrade to investment grade) we will see the relationship between EMD spreads and high yield spreads settle between phases two and three outlined above.

## Commodities

We break our commodity forecast into 4 components.

Commodity Returns = US inflation + Index rebalancing – Roll yield + US cash.

We assume that

- In aggregate commodity prices broadly track US inflation
- That commodity prices mean revert over time, as capacity will be increased where there is a production shortage. Rebalancing the index therefore generates excess return by booking temporary price gains
- The roll yield will be negative due to synthetic storage costs
- Investors receive the return on the collateral which backs the synthetic commodity investment

## Equities

Equity returns consist of two components income and capital returns.

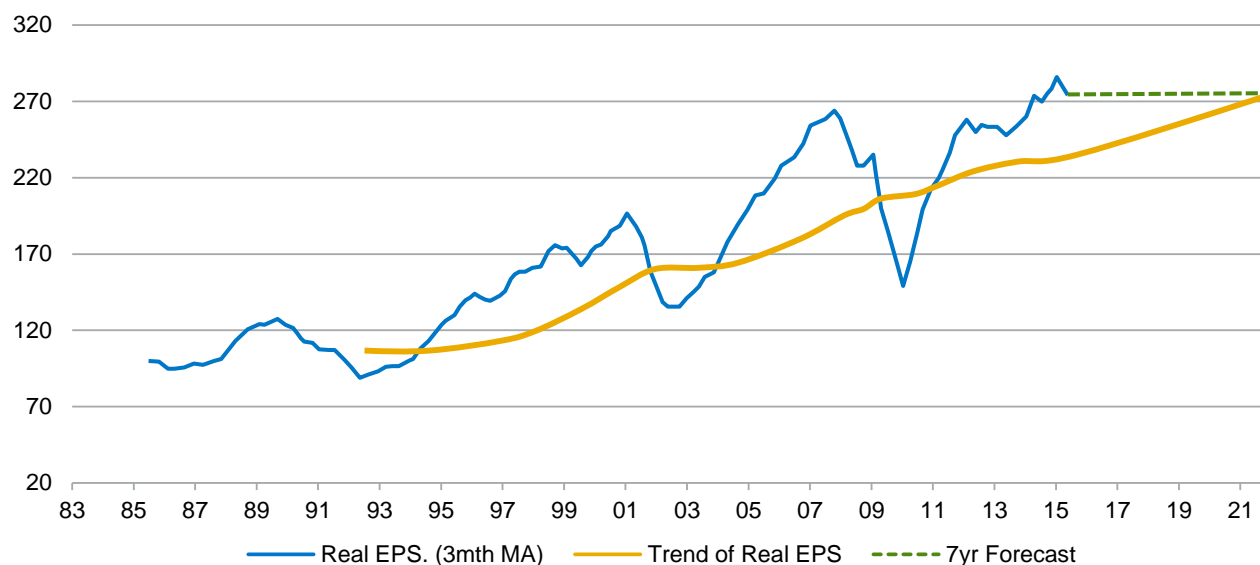
### Income

The income component is determined by the initial dividend yield and growth in dividends. The dividend growth rate is determined by a combination of future earnings growth and the equilibrium payout ratio.

The US terminal earnings growth rate is based on the 30 year exponential trend in earnings, and the current trend level is estimated using a seven year moving average. Earnings are assumed to revert to trend over the forecast period.

### S&P 500 real earnings

US – S&P 500



Source: Schroders Economics Group, July 2015.

The earnings growth rate is then adjusted to give the dividend growth rate. We assume that the payout ratio will revert to trend over this time period

**S&P 500 payout ratio**

Source: Thomson Datastream, Schroders Economics Group, July 2015.

**Capital growth**

Computing capital returns require two assumptions, the rate of earnings growth and the terminal PE.

The terminal PE ratio is assumed to equal the 30-year trimmed mean. The method for calculating the earnings growth rate is described above.

**Other markets**

The European, UK and US market returns have historically tracked each other closely. We use this historic relationship to generate our return forecasts for Europe and the UK.

For Asian and emerging markets there is not a close relationship with US market performance. We therefore use the same method as outlined above for the US economy, making adjustments to account for our expectations of lower structural growth rates in EM from this point on.

**2015 change to methodology**

This year, we have also altered our methodology for Japanese earnings. We judged that our previous estimates of the terminal EPS growth rate were too low because the exponential trend could not take account of the structural shift implied by Abenomics and QQE. We looked at a range of options before settling on using a Christiano-Fitzgerald filter, with a 5-30 year cycle component, to de-trend the data. This provided a modestly higher terminal EPS growth rate consistent with other evidence on the Japanese economy. In future iterations of this work we will consider extending this approach to all markets.

The Christiano Fitzgerald filter is a band pass filter which aims to decompose a data series into three components: trend, cyclical, and noise. It is a more forward looking filter than the Hodrick Prescott filter often used.

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