Schroders

Seven-year asset class forecast returns

2017 Update

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Introduction

Our seven-year returns forecast largely builds on the same methodology that has been applied in previous years, as explained in the appendix to this document; and has 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 2016. One key change this year has been a change to our methodology for forecasting credit returns, to incorporate the effects of quantitative easing (QE). A full description can be found in the appendix.

Summary

Returns face further compression after another strong year

Table 1 below shows our forecast returns for the 2017–24 period. Cash and bond returns are largely expected to be negative in real terms, unsurprising perhaps given the continued low rate environment. Investors seeking positive real returns would be advised to look at riskier assets: credit, equities and alternatives. However, even here it seems positive returns are not assured. European credit and equities, for example, are both expected to yield negative real returns over the forecast horizon.

Table 1: Seven-year asset class forecasts (2017–2024), % per annum

		Nominal	Inflation	Real
Cash				
US	USD	1.7	2.1	-0.4
UK	GBP	1.3	2.4	-1.0
Euro	EUR	1.2	1.6	-0.4
Japan	JPY	0.1	1.0	-0.9
Bonds				
US	USD	2.4	2.1	0.3
UK	GBP	0.5	2.4	-1.8
Euro	EUR	-0.2	1.6	-1.8
Equity				
US (S&P 500)	USD	3.7	2.1	1.6
UK (FTSE All Share)	GBP	5.4	2.4	3.0
Europe ex UK*	USD	1.5	1.6	-0.1
Japan*	JPY	5.9	1.0	4.9
Pacific ex Japan*	USD	8.2	2.3	5.8
Emerging Markets*	USD	7.9	3.6	4.2
MSCI World	USD	4.2	2.0	2.1
Credit				
US HY	USD	4.6	2.1	2.4
US IG	USD	3.5	2.1	1.4
UK IG	GBP	1.7	2.4	-0.7
EU IG	EUR	0.9	1.6	-0.7

		Nominal	Inflation	Real
Alternatives				
Emerging Market Dollar Debt (EMD USD)	USD	5.8	2.1	3.6
Commodities	USD	3.3	2.1	1.2
Private equity	GBP	7.7	2.1	5.4
Hedge funds	USD	4.2	2.1	2.0

Note: *Thomson Datastream's indices. Source: Schroders Economics Group, Schroders Property Group, July 2017.

Macroeconomic outlook

Short term US growth outlook improves

Our overall growth forecast for the next seven years shows a recovery in the world economy, although one that is sub-par by past standards. We have upgraded our short-term growth forecasts for the US (chart 1) after repeated downgrades in past editions, though longer term growth is revised down as we expect demographics and productivity disappointments to weigh on trend growth.
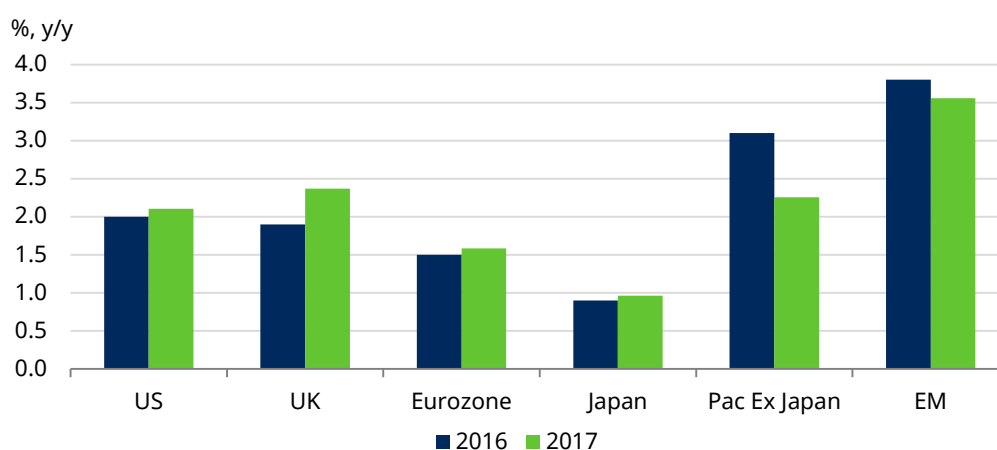
Chart 1: US growth forecast (2017–2024 vs. 2016–2023)
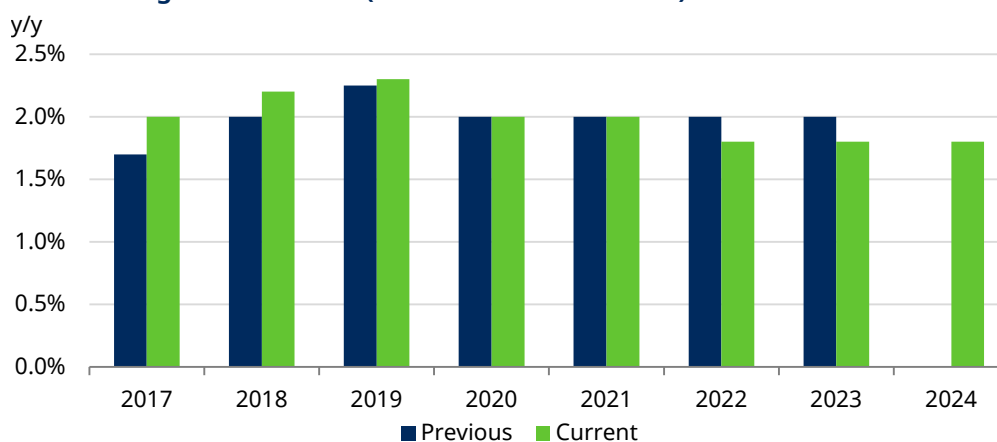
Source: Schroders Economics Group, July 2017.

Inflation revisions are more mixed. We expect marginally higher inflation over the seven years in developed markets (DM), in part simply because the very low inflation of 2016 is behind us. The biggest upward revision, in the UK, can also be attributed partially to the impact of currency weakness linked to the Brexit vote in June 2016. Meanwhile, inflation expectations in Pacific Ex Japan and emerging markets (EM) are revised down thanks to lower oil prices and structural changes in key high inflation EM markets like Brazil, India and Russia.

DM inflation rises as we exit deflation, oil and reform helps EM lower

Chart 2: Inflation forecast (2017–2024 vs. 2016–2023)

Source: Schroders Economics Group, July 2017.

Cash

Our forecasts for cash and bonds are based on the projected path of rates and yields over the next seven years. All cash markets remain in negative real return territory as policy rates remain subdued. The worst returns come in the UK thanks to higher inflation and a central bank response constrained by the weaker growth outlook.

Table 2: Cash return forecasts

	2017–2024 (% per annum)			Change from 2016 (percentage points)		
	Nominal	Inflation	Real	Nominal	Inflation	Real
Cash						
US	1.7	2.1	-0.4	0.2	0.1	0.0
UK	1.3	2.4	-1.0	0.2	0.5	-0.2
Euro	1.2	1.6	-0.4	-0.1	0.1	-0.2
Japan	0.1	1.0	-0.9	0.1	0.1	0.1

Source: Schroders Economics Group, July 2017.

Government bonds

We forecast significant increases in returns across the board for government bonds as a result of recent moves towards normalisation. The recovery in yields since 2016 in Europe and the US helps drive higher returns by improving capital returns. For the UK and Europe, we also expect lower terminal bond yields than in 2016, which again increases returns via the capital gains channel. All the same, real returns remain negative in the UK and Eurozone, with only the US offering weakly positive real returns.

Table 3: Bond return forecasts

	2017–2024 (% per annum)			Change from 2016 (percentage points)		
	Nominal	Inflation	Real	Nominal	Inflation	Real
Bonds						
US	2.4	2.1	0.3	0.8	0.1	0.7
UK	0.5	2.4	-1.8	1.7	0.5	1.2
Euro	-0.2	1.6	-1.8	2.2	0.1	2.1

Source: Schroders Economics Group, July 2017.

Equities

Unlike cash or bonds, most equity markets are forecast to deliver a positive real return, particularly Pacific ex Japan, EM, and Japan (Table 4). Europe is an exception in delivering negative returns over the forecast horizon, thanks to above trend price to earnings ratios which are expected to revert to a lower trend level over time, and a weak forecast for earnings growth.

Table 4: Equity return forecasts

	2017–2024 (% per annum)			Change from 2016 (percentage points)		
Equity	**Nominal**	**Inflation**	**Real**	**Nominal**	**Inflation**	**Real**
US (S&P 500)	3.7	2.1	1.6	-2.3	0.1	-2.3
UK (FTSE All Share)	5.4	2.4	3.0	5.6	0.5	5.1
Europe ex UK*	1.5	1.6	-0.1	-2.4	0.1	-2.5
Japan*	5.9	1.0	4.9	-3.0	0.1	-3.0
Pacific ex Japan*	8.2	2.3	5.8	-3.7	-0.8	-2.7
Emerging markets*	7.9	3.6	4.2	-3.3	-0.2	-3.0
MSCI World	4.2	2.0	2.1	-1.9	0.0	-1.9

Note: *Thomson Datastream's indices. Source: Schroders Economics Group, July 2017.

We model equity returns by assuming that real earnings-per-share (EPS) growth returns to its long-run trend level by the end of the seven-year period. Meanwhile the valuation metric (PE) returns to a long-run fair value based on a trimmed mean of historic data. Trend growth rates, and terminal PE ratios, are shown in Table.

Last year, in response to challenges posed by abnormal UK equity valuations following the Brexit vote, we changed our method used for determining the trend value of real EPS growth. For the year ahead, we used consensus expectations, adjusted for any historical bias. Beyond the first year, we used a Christiano Fitzgerald filter to extract the trend EPS growth rate. This year we revert to our original methodology, dropping the use of consensus forecasts for earnings (which typically proved to be well wide of the mark) as we judged it to complicate the methodology without ultimately adding much predictive power.

We have adopted an alternative approach to tackle the challenge posed by UK valuations, however, linking earnings expectations to the oil price. This is explained in more detail below.

These changes in methodology mean that a comparison of equity forecasts shows some significant changes compared to last year, but these should not be overinterpreted.

Table 5: Equity assumptions

| Regions	Trend EPS growth per annum	PE (t)	PE (t+7)
US	1.7%	22.6	18.7
UK	2.4%	28.6	16.7
Europe	-2.6%	17.2	15.3
Japan	3.5%	16.0	15.6
Pacific ex Japan	0.1%	14.8	15.7
EM	2.4%	13.8	13.5
World	-3.5%	19.1	19.0

Source: Schroders Economics Group, July 2017.

Negative real returns in Europe – the only market where we expect this outcome – are the result of a downturn in trend earnings (chart 3) which leads to negative earnings growth, as well as stretched valuations. We recognise that this forecast is contentious, but currently have no fundamental reason to override the statistical filter applied to EPS. We recognise risks to this forecast in the form of the potential

for significant reform in Europe following the election of President Macron in France, but it is difficult to model hope.

Trend in European earnings weighs on returns

**Chart 3: Europe ex UK earnings relative to trend**
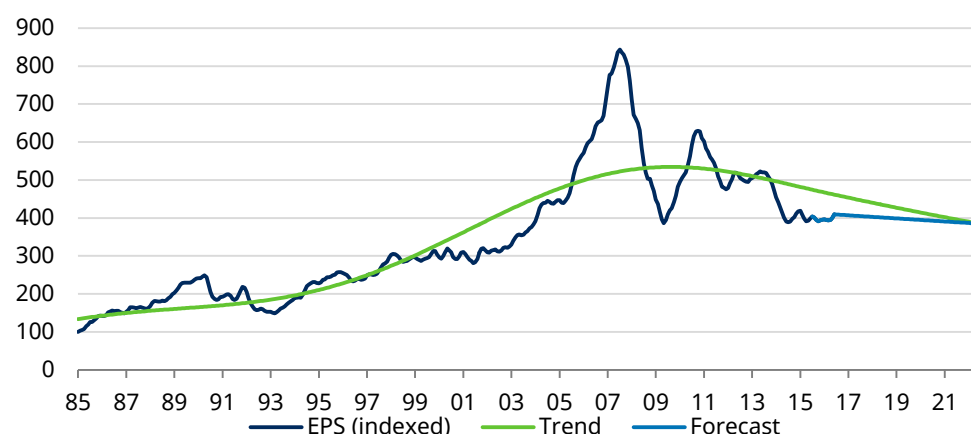
Source: Schroders Economics Group, July 2017.

US equities have grown more expensive over the last 12 months, with a PE of around 22 compared to a terminal value of 18.7, which exerts some drag on returns. However, there is some scope for a small amount of earnings growth with earnings currently on trend (chart 4), such that the equity market is forecast to yield an annualised return of 3.7% in nominal terms.

US and Japanese earnings show strong positive trend

**Chart 4: US earnings relative to trend**
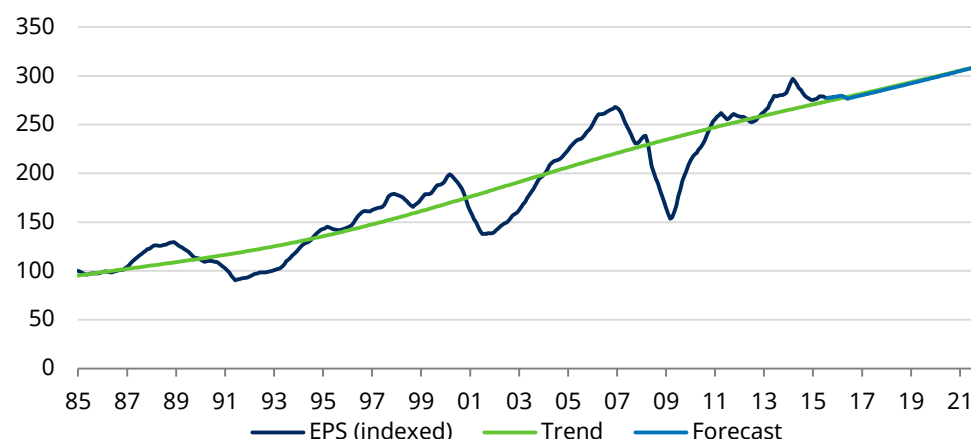
Source: Schroders Economics Group, July 2017.

Last year we changed the terminal PE used in Japan. Historically, we took a trimmed mean of the historic data, excluding the bubbles. There seems to have been a clear break in the PE ratio's behaviour, with a decline through the early 2000s and a fairly steady, much lower, level since the global financial crisis. We hypothesised that the crisis and the Japanese policy response in the form of "Abenomics" has fundamentally changed the behaviour of PE ratios. The terminal PE ratio chosen is therefore based on an average of the historical data since October 2010 – the time when the BoJ began discussing its more aggressive policy stance. This has resulted in a lower terminal PE of 15.6 compared to a little over 19 before, which reduces the capital gain contribution.

On the earnings side, QE and/or Abenomics seem also to have changed the behaviour of earnings, with a much more positive trend beginning in the mid-2000s. While EPS is currently above trend, the strong trend growth projected means further EPS improvement is also expected (chart 5). This helps Japanese equities to deliver a strong annualised performance of 5.9%.

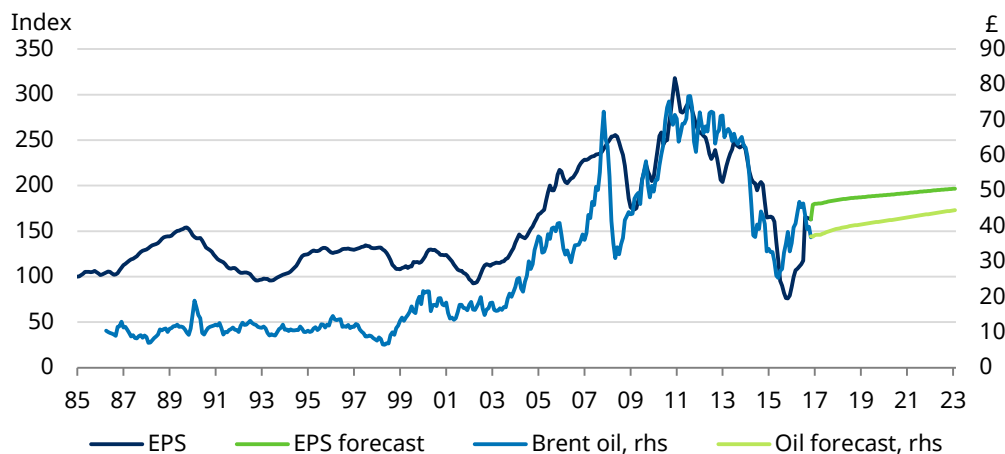**Chart 5: Japanese earnings relative to trend**
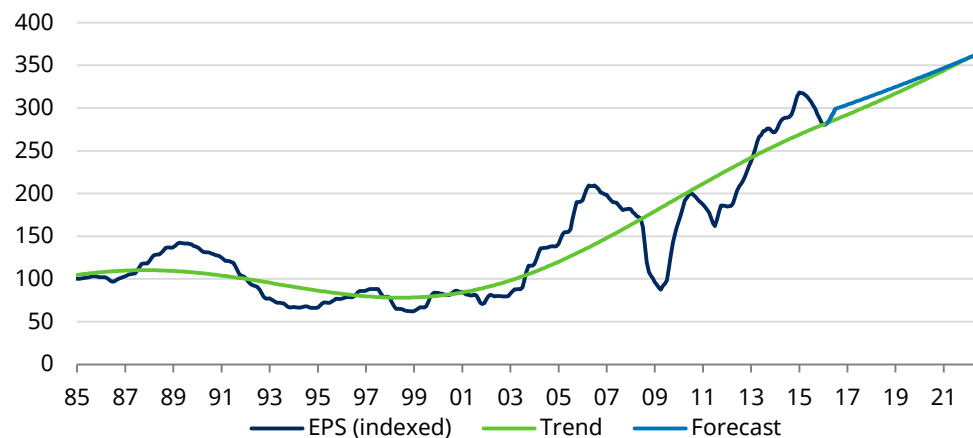
Source: Schroders Economics Group, July 2017.

Our problem with UK equities persists; the collapse in earnings in recent years has the effect of driving up the PE ratio (chart). Assuming a reversion to a trend PE level over time, the spike in the PE implies large capital losses. The flipside of low earnings should be a strong income gain helping to counter those capital losses. However, the earnings decline has been strong enough to bring the trend growth rate down. In contrast to Europe ex UK equities, we believe there are fundamental reasons to override the EPS trend provided by our statistical filter in this case.

UK equities present a forecasting challenge

Specifically, we note that the UK FTSE All Share has a high degree of commodity exposure. Oil is a particularly significant commodity and it turns out that Brent crude prices (expressed in sterling) correlate strongly with UK EPS (chart). A simple statistical filter approach here implies that oil prices continue trending down to $20 per barrel (around £15) over seven years, which we see as unrealistic. Instead, using the relationship between oil and earnings, and forecasting oil over the seven year horizon based on the forward curve, we arrive at an alternative path for trend EPS which implies modest EPS growth for UK equities, and consequently a positive real return.

Chart 6: UK earnings and oil

Source: Schroders Economics Group, July 2017.

Credit

Credit return forecasts are calculated as a spread over a relevant government bond, so the changes in our bond forecasts this year are reflected by their credit counterparts. Negative real returns in European and UK government bonds drag credit returns down into negative territory too. Only in the US are positive real returns on offer.

We incorporate QE into our credit model

It should be noted that we have altered our methodology for credit returns this year. Historically we have used the relationship between US GDP growth and high yield spreads to forecast credit spreads. However, since the crisis this relationship has broken down. We found that taking account of both GDP growth and the growth in the Federal Reserve balance sheet (due to QE), restored a degree of statistical significance to the relationship.

Table 6: Credit market return forecasts

	2017–2024 (% per annum)			Change from 2016 (percentage points)		
	Nominal	**Inflation**	**Real**	**Nominal**	**Inflation**	**Real**
Credit						
US HY	4.6	2.1	2.4	0.1	0.1	-0.1
US IG	3.5	2.1	1.4	0.3	0.1	0.2
UK IG	1.7	2.4	-0.7	-1.9	0.1	-2.1
EU IG	09	1.6	-0.7	-1.9	0.1	-2.0

Source: Schroders Economics Group, July 2017.

Alternatives

Despite higher forecast US bond yields, emerging market dollar debt (EMD USD-denominated) returns have fallen since last July, thanks to a tightening of spreads. The forecast return on commodities has edged higher due to higher US cash returns. Our methodology assumes that hedge funds and private equity generate equity-like returns, which we proxy with the MSCI World return (with an additional risk premium for private equity). So with global equity returns lower, private equity and hedge fund nominal returns also fall.

Table 7: Alternative asset class return forecasts

	2017–2024 (% per annum)			Change from 2016 (percentage points)		
	Nominal	**Inflation**	**Real**	**Nominal**	**Inflation**	**Real**
Credit						
EMD USD	5.8	2.1	3.6	0.1	0.1	-0.1
Commodities	3.3	2.1	1.2	0.3	0.1	0.2
Private Equity	7.7	2.1	5.4	-1.9	0.1	-2.1
Hedge Funds	4.2	2.1	2.0	-1.9	0.1	-2.0

Source: Schroders Economics Group, July 2017.

Conclusions

**Alternatives and credit begin to rival equity returns**

The best return on offer is found in Pacific ex Japan equities, followed by Japan and then Emerging Markets. As in previous years, the highest returns are to be found chiefly amongst equities, but the gap between returns from equities and from other investments has been greatly compressed. Notably, EM dollar debt is competitive with many equity markets; a return of 3% is comparable to the UK and higher than the US or broader MSCI World expected real returns. US high yield credit also offers higher returns than US equities. Investors will need to consider relative volatility, of course, which tends to be higher for equities, particularly the higher yielding EM market.

At the other end of the scale, cash and bonds (with the exception of US Treasuries) are still expected to lose you money in real terms over seven years, but losses are reduced compared to last year, and should policy normalisation continue we could soon be at a point of real returns from these lower yielding assets.

Appendix 1 – Forecast overview

Elevated valuations on the back of QE imply capital losses over time

Chart 7: Forecast returns
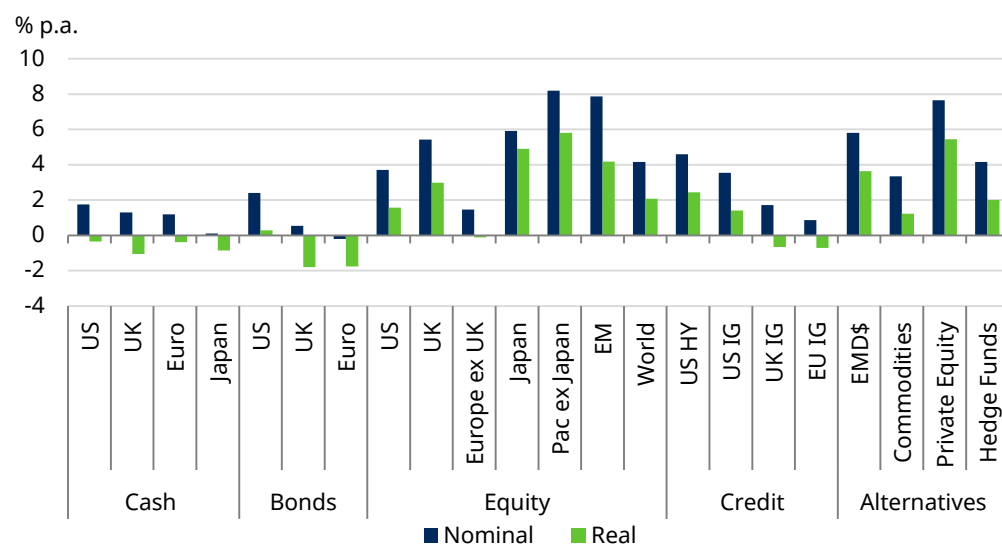
Source: Schroders Economics Group, July 2017.

Table 8: Change from last update

	Nominal	Inflation	Real
		% per annum	
Cash			
US	0.2	0.1	0.0
UK	0.2	0.5	-0.2
Euro	-0.1	0.1	-0.2
Japan	0.1	0.1	0.1
Bonds			
US	0.8	0.1	0.7
UK	1.7	0.5	1.2
Euro	2.2	0.1	2.1
Equity			
US (S&P 500)	-2.3	0.1	-2.3
UK (FTSE All Share)	5.6	0.5	5.1
Europe ex UK*	-2.4	0.1	-2.5
Japan*	-3.0	0.1	-3.0
Pacific ex Japan*	-3.7	-0.8	-2.7
Emerging Markets*	-3.3	-0.2	-3.0
MSCI World	-1.9	0.0	-1.9
Credit			
US HY	0.2	0.1	0.0
US IG	0.0	0.1	-0.1
UK IG	0.7	0.5	0.2
EU IG	1.8	0.1	1.7
Alternatives			
EMD USD	0.1	0.1	-0.1
Commodities	0.3	0.1	0.2
Private equity	-1.9	0.1	-2.1
Hedge funds	-1.9	0.1	-2.0

Note: *Thomson Datastream's indices. Source: Schroders Economics Group, July 2017.

Appendix 2 – Forecast methodology

Cash: Annualised cash return anticipated over the next seven years based on an explicit interest rate profile.

Government Bonds: Annualised return anticipated over the next seven years based on explicit year-end government bond yields.

Credit Bonds

High yield: We have altered our methodology for credit returns this year. Historically we have used the relationship between US GDP growth and high yield spreads to forecast credit spreads. However, since the crisis this relationship has broken down. We found that taking account of both GDP growth (year on year) and the quarterly growth in the Federal Reserve balance sheet as a share of GDP (i.e. QE), restored a degree of statistical significance to the relationship, with QE generating tighter spreads. We use this relationship to forecast the evolution of spreads over seven years, based on explicit GDP and QE forecasts.

Investment grade: Spreads track high yield spreads closely. We use this relationship to forecast investment grade spreads.

Emerging market debt (EMD) USD-denominated

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

– 1997–2000 where there were problems in the EMD market as several countries went through a restructure or default
– 2000–2007 where both high yield and EMD markets functioned normally
– 2007–present where high yield spreads went from being very tight to an historic wide, whereas EMD spreads remained reasonably well supported

We believe that with the increasing quality of EMD debt (countries are gradually being upgraded 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 four components. Commodity Returns = US inflation + Index rebalancing – Roll yield + US cash.

We assume that:

– In aggregate commodity prices broadly track US inflation
– 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: Returns consist of two components income and capital returns.

Income component: 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.

We use a Christiano-Fitzgerald filter, with a 5–20 year cycle component, to obtain trend EPS levels and growth rates. Earnings are assumed to revert to trend over the forecast period.

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

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, with the exception of Japan as discussed. In Japan's case, we take the mean since October 2010, chosen because it marks the point at which the BoJ began publicly discussing aggressive expansion of its government bond buying programme, in line with the new policy regime of Abenomics. PE ratios have remained stubbornly low since, and it was hard to justify PE reversion to a level not seen since before the financial crisis.

The method for calculating the earnings growth rate is described above.

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