

Schroders

Long run asset class performance: 30-year return forecasts (2016–45)

Schroders Economics Group produces 30-year return forecasts, on an annual basis, for a range of asset classes. Here we outline the methodology used, which is based on a series of building blocks and estimates of risk premia, and surmise the key conclusions from our analysis.

Cash

Cash returns likely to be negative in the near term, owing to the deleveraging process

One of the key building blocks for our long-run forecast is our assumption regarding the returns on cash, which are almost entirely driven by movements in key policy rates (Bank of England base rate, the Federal Funds rate etc.).

The methodology we use is a multi-stage approach- in the initial stage (duration dependent on the region) we forecast the real return on cash to remain negative, as the de-leveraging of both private and public sector balance sheets in the developed world keeps monetary policy extremely accommodative, and negative real rates remain an attractive way of ameliorating the debt burden.

The second stage of our cash forecast is a simple normalisation in cash rates, expected to start as soon as next year in the US, before we reach the third and final stage, with positive real cash rates. This terminal value of real cash returns is based on an historic average, to which we make adjustments to reflect our views going forward about the strength of trend growth. This year, we have made downward adjustments to the historic average for the UK, due to central bank guidance on lower rates, and Japan, owing to poor demographics suggesting an anaemic growth outlook.

Table 1: Real cash returns assumption (% per annum)

| | US | UK | Eurozone | Japan |
|----------------------------|------|------|----------|-------|
| De-leveraging phase | -1.5 | -0.2 | -0.9 | -1.5 |
| Long run | 1.0 | 0.3 | 0.2 | -0.5 |
| Overall (2016–45) | 0.66 | 0.13 | -0.01 | -0.76 |

Source: Schroders Economics Group, February 2016

Cash return forecasts have seen largely downward revisions, thanks in part to the downward adjustments made to terminal rates, with the exception of the US which sees upward revisions as the deleveraging process is almost over, and normalisation (and a return to positive rates) is much closer. Returns generally though remain very low, and negative in the case of Japan and (just) the Eurozone.

Inflation

Our preferred approach is to formulate our views on the real returns of the major asset classes and then add our inflation assumptions to give the expected nominal return. Our inflation forecasts follow a multi-stage approach, using consensus forecasts for the initial ten years and our own forecast for the latter twenty.

Sovereign bonds

Our return assumption on sovereign debt builds on the return we have for cash, adding a term premium to forecast the returns to longer maturity (10-year) bonds. As with our cash methodology, we estimate the maturity premium from historical averages (in this case twenty years) and make an adjustment to reflect our own views. Using the historical average maturity is a sensible base, as there is a maximum steepness a yield

Sovereign debt should outperform cash, but returns still muted

curve can reach before the carry and roll becomes too attractive for investors to ignore, thus encouraging them to buy long-dated bonds and flatten the curve again. We maintain, from last year, a 40% discount to the historic steepness of the yield curve for all countries, to reflect the view that yield curves are likely to be flatter going forward than they have been since the early 1990s, as a result of loose monetary policy and a weak growth outlook.

For the UK and US, we also forecast the returns on inflation-linked government debt, by applying a discount to the returns on the nominal bonds. It is to be expected that inflation linked bonds offer a lower return than nominal, owing to the insurance they offer against rising prices. The reason for the greater yield discount applied to UK linkers than US TIPS is due to technical market reasons, related to the relative liquidity of the two markets¹ and the structure of the market.

Table 5: Cash, sovereign bonds and linkers

| | US | UK | Eurozone | Japan |
|-------------------------------|-----|-----|----------|-------|
| 2016–45 (% p.a.) | | | | |
| 3 stage model | 0.7 | 0.1 | 0.0 | -0.8 |
| Cash real return | 0.7 | 0.1 | 0.0 | -0.8 |
| Inflation | 2.1 | 2.3 | 2.0 | 1.8 |
| Nominal cash return | 2.8 | 2.5 | 2.0 | 1.0 |
| Bond maturity premium | 1.1 | 0.5 | 0.7 | 0.7 |
| Bond return | 3.9 | 3.0 | 2.7 | 1.7 |
| Inflation insurance premium | 0.5 | 1.0 | n/a | n/a |
| Inflation linked bonds | 3.4 | 2.0 | n/a | n/a |

Source: Schroders Economics Group, February 2016

In line with the cash returns, many government bonds have seen their expected returns shaved down this year, with the exception of the US thanks to the upward lift to its cash returns. Australia and Singapore received the largest upgrade, of 0.3 percentage points, while Hong Kong has the highest expected returns of the bond markets we cover at 1.5% p.a.

Credit

Credit returns are estimated as the excess over sovereigns

Our credit returns are forecast using the excess return of credit (both investment grade and high yield) over sovereign bonds for the respective market. The two key drivers of credit's excess return are the changes in spreads and the expected loss through defaults, both of which are closely linked to the economic cycle. For this reason, we combine regression analysis of spread changes and default losses with our long run US growth forecast to forecast the excess return of US high yield and investment grade credit over Treasuries. Using regression analysis again, we use the excess returns of US credit to estimate the excess returns of UK and European credit over UK Gilts and German Bunds respectively.

Table 6: Credit – Investment grade (IG) and high yield (HY)

| 2016–45 (% p.a) | US IG | US HY | UK IG | Euro IG | Euro HY |
|----------------------------------|-------|-------|-------|---------|---------|
| Spread | 1.0 | 5.4 | 0.7 | 0.5 | 6.3 |
| Default loss | 0.1 | 3.7 | 0.1 | 0.1 | 3.7 |
| Return over 10-year govt. | 1.0 | 1.7 | 0.7 | 0.5 | 2.6 |
| 10-year govt. return | 3.9 | 3.9 | 3.0 | 2.7 | 2.7 |
| Nominal return | 4.8 | 5.6 | 3.6 | 3.2 | 5.3 |

Source: Schroders, February 2016

Credit returns have all been revised downwards with the exception of the US. A combination of lower yields on government bonds (with which we assume credit exhibits some relationship) and higher inflation has hurt expected real returns. In the US, higher government bond returns (resulting from an uplift to cash) see a marginal upgrade to our

¹ UK linkers make up a bigger share of the total Gilt market (roughly 20%) than TIPS do of the Treasury market (less than 10%). Thus, relative to their main market, TIPS are less liquid than UK linkers, and thus have a price discount (e.g. lower prices, thus higher yield and smaller differential between nominal and TIPS yield)

forecast for credit.

Equities

Our equity return assumptions use a Gordon's growth model approach, in which returns are generated through the initial dividend yield and the growth rate of dividends (via earnings growth). We have made a change this year to our forecasting methodology for productivity. We now make explicit productivity forecasts, using historical averages and our own outlook. For example, EM productivity growth is assumed to be lower in the future as the scope for technological "catch up" recedes.

This forecast for productivity is the basis for our earnings and dividend growth assumptions, though we make adjustments for areas where earnings and trend productivity have not tended to grow in line. This is the case in the emerging markets, where productivity gains have historically not translated fully into earnings growth, hence we scale earnings growth downwards, and Europe where earnings growth has tended to exceed productivity growth (hence an upward scaling).

Table 7: Expected returns from equity markets

| | US | Japan | UK | Eurozone | Pacific ex. Japan | Emerging | Switzerland |
|----------------------------------|------------|------------|------------|------------|----------------------|-------------|-------------|
| 2016–45 (p.a.) | | | | | | | |
| Dividend yield | 2.2 | 1.8 | 3.7 | 2.7 | 4.4 | 3.3 | 3.0 |
| Projected dividend growth | 1.5 | 1.5 | 2.0 | 1.8 | 2.2 | 3.3 | 1.3 |
| Expected real return | 3.7 | 3.3 | 5.8 | 4.6 | 6.7 | 6.7 | 4.4 |
| Inflation | 2.1 | 1.8 | 2.3 | 2.0 | 2.7 | 3.3 | 1.2 |
| Expected nominal return | 5.9 | 5.1 | 8.3 | 6.7 | 9.6 | 10.2 | 5.6 |

Source: Schroders, February 2016

Mainly negative changes to our outlook for equities, with the exceptions of the UK, Singapore, and Pacific ex Japan, where higher yield expectations were the key driver. The largest downgrade was for Emerging Markets, closely followed by the US, on downward revisions to productivity expectations, which hits earnings growth.

We find the highest returns in UK small cap and Singapore at 7.2%, followed by EM and Pacific ex Japan at 6.7%. High productivity growth is a key driver for the EM market, while the UK small cap index benefits from a premium relative to its large cap counterpart, which itself has a high current dividend yield. The worst performing market is expected to be Japan, delivering just 3.3% p.a. over the forecast period in real terms, though even Japan offers a premium over bonds and cash.

Summary

Our forecasts suggest that the long run real returns on cash will be extremely poor, and especially so in the next ten years, during which they are likely to be negative for most developed markets. Further out, for the UK, US and Europe the real return on cash should normalise and become positive, but over the entire forecast horizon cash will do little better than beat inflation.

We would expect longer dated sovereign debt to outperform cash over thirty years, but returns in real terms are still likely to be disappointing, particularly in the near future. The current valuations of bonds considered "safe assets" are unattractive and suggest low returns.

Of the riskier assets, we expect both credit (particularly high yield), property and equities to outperform sovereign bonds, though some investment grade credit offers similar returns to US sovereign debt. Equities remain the asset class offering the greatest potential for returns. On a regional basis, we believe equities will deliver an attractive

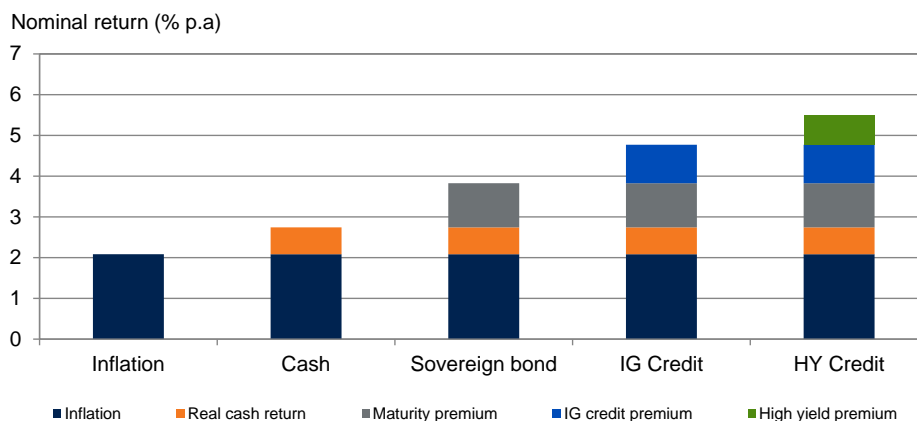
Equity return forecasts show disparity between EM and DM, particularly Japan

Strongest returns found in equities, particularly EM and UK small cap, while cash returns are atrocious

return (both real and nominal) across the board, with EM this year finally ceding their highest return crown to UK small cap equities, though they remain one of the best expected performers.

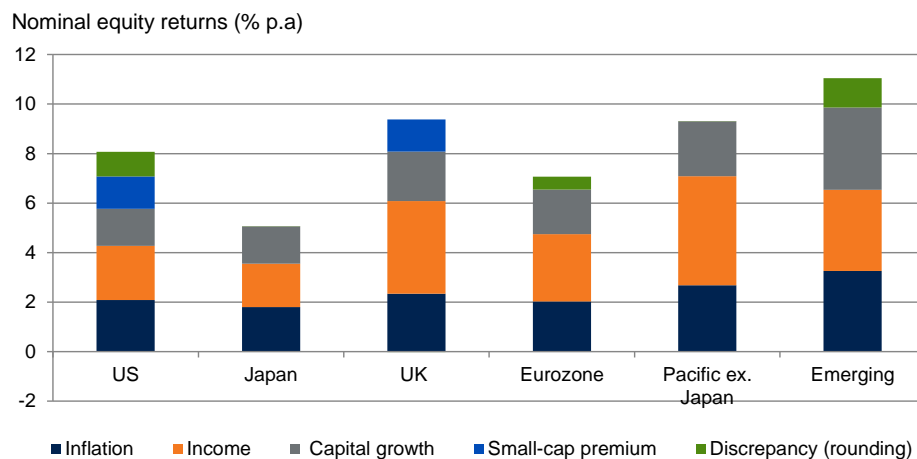
Emerging market equities, however, are more prone to periods of crisis than their developed peers, and we would expect the more generous potential return to be accompanied by greater volatility and sharper drawdowns. Elsewhere, equity returns are lowest in Japan, thanks to a sub-par dividend yield in comparison with its peers. Meanwhile, the deflationary environment explains the relative underperformance of both the Japanese cash and JGB markets.

Chart 12: US nominal asset returns – build up approach



Source: Schroders, February 2016

Chart 13: Nominal equity returns breakdown



Source: Schroders, February 2016

Table 8: Long-run return assumptions (2016–45)

| | Currency | Yield | Capital gain | Nominal return | Inflation | Real return |
|--|--------------|-------|--------------|----------------|-----------|-------------|
| Cash | | | | | | |
| USD cash | USD | 2.8 | N/A | 2.8 | 2.1 | 0.7 |
| GBP cash | GBP | 2.5 | N/A | 2.5 | 2.3 | 0.1 |
| EUR cash | EUR | 2.0 | N/A | 2.0 | 2.0 | 0.0 |
| YEN cash | JPY | 1.0 | N/A | 1.0 | 1.8 | -0.8 |
| Australia | AUD | 3.3 | N/A | 3.3 | 2.6 | 0.7 |
| Hong Kong | HKD | 2.8 | N/A | 2.8 | 2.2 | 0.6 |
| Singapore | SGD | 1.7 | N/A | 1.7 | 1.3 | 0.4 |
| G4 cash | <i>Local</i> | 2.3 | N/A | 2.3 | 2.0 | 0.3 |
| Government bonds (10-year) | | | | | | |
| US Treasury bond | USD | 3.9 | N/A | 3.9 | 2.1 | 1.7 |
| UK Gilt | GBP | 3.0 | N/A | 3.0 | 2.3 | 0.6 |
| Eurozone (Germany) | EUR | 2.7 | N/A | 2.7 | 2.0 | 0.7 |
| JGB | JPY | 1.7 | N/A | 1.7 | 1.8 | -0.1 |
| Australia | AUD | 3.5 | N/A | 3.5 | 2.6 | 0.9 |
| Hong Kong | HKD | 3.9 | N/A | 3.9 | 2.2 | 1.6 |
| Singapore | SGD | 2.6 | N/A | 2.6 | 1.3 | 1.3 |
| G4 bond | <i>Local</i> | 3.2 | N/A | 3.2 | 2.0 | 1.1 |
| Inflation-linked | | | | | | |
| Barclays 7–10 year IL Gilts | GBP | 2.0 | N/A | 2.0 | 2.3 | -0.4 |
| Barclays 7–10 year TIPS | USD | 3.4 | N/A | 3.4 | 2.1 | 1.3 |
| Credit | | | | | | |
| US IG | USD | 4.8 | N/A | 4.8 | 2.1 | 2.7 |
| US HY | USD | 5.6 | N/A | 5.6 | 2.1 | 3.4 |
| UK IG | GBP | 3.6 | N/A | 3.6 | 2.3 | 1.3 |
| Euro IG | EUR | 3.2 | N/A | 3.2 | 2.0 | 1.1 |
| Euro HY | EUR | 5.3 | N/A | 5.3 | 2.0 | 3.2 |
| Property | | | | | | |
| UK Commercial | GBP | 4.9 | 0.5 | 5.4 | 2.3 | 3.0 |
| EUR Commercial | EUR | 5.1 | 0.8 | 5.9 | 2.0 | 3.8 |
| Equity markets | | | | | | |
| US | USD | 2.2 | 3.6 | 5.9 | 2.1 | 3.7 |
| US small cap | USD | 2.2 | 5.0 | 7.3 | 2.1 | 5.1 |
| Japan | JPY | 1.8 | 3.3 | 5.1 | 1.8 | 3.3 |
| UK | GBP | 3.7 | 4.4 | 8.3 | 2.3 | 5.8 |
| UK small cap | GBP | 2.9 | 6.6 | 9.7 | 2.3 | 7.2 |
| Switzerland | CHF | 3.0 | 2.5 | 5.6 | 1.2 | 4.4 |
| Europe ex.UK | EUR | 2.8 | 3.5 | 6.4 | 1.9 | 4.4 |
| Eurozone | EUR | 2.7 | 3.9 | 6.7 | 2.0 | 4.6 |
| Singapore | SGD | 3.7 | 4.8 | 8.6 | 1.3 | 7.2 |
| Pacific ex Japan | USD | 4.4 | 5.0 | 9.6 | 2.7 | 6.7 |
| Emerging markets | <i>Local</i> | 3.3 | 6.7 | 10.2 | 3.3 | 6.7 |
| Global (AC) Equity | <i>Local</i> | 2.5 | 4.0 | 6.7 | 2.2 | 4.4 |
| Global (AC) Equity Risk Premium | | | vs. G4 bonds | 3.4 | | 3.2 |
| | | | vs. G4 cash | 4.3 | | 4.1 |

Note: UK Index-linked returns use RPI inflation for the nominal return

Source: Thomson Datastream, Schroders Economics Group, February 2016

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