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10-year return forecasts (2019–29)

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Executive summary

Riaz Fidahusein
Head of Strategic Allocation Modelling, Multi-asset
(44-20)7658 5244

Keith Wade
Chief Economist and Strategist
(44-20)7658 6296

Long-term capital market assumptions are forward-looking estimates of total returns which are an important component for strategic asset allocation modelling and portfolio construction.

This note outlines our methodology for estimating 10-year capital market returns in local currency terms. Our approach was developed using a framework predominantly based on market measures allowing for a transparent, timely and systematic process updated twice a year.

To ensure our framework is coherent and consistent across asset classes and markets, we make use of certain reference assets (e.g. US equities and government bond) as 'anchors' for estimating total returns for other asset classes.

Cash returns

Developed market

On the basis that we are using the government bond return as an anchor, cash returns are estimated by determining an appropriate term premium. This has been distorted in recent years by central bank asset purchase programmes which have depressed the gap between short and long rates. Consequently we have taken a pre-financial crisis term premium for the US and UK. For the eurozone and Japan where distortions still exist, and will continue to do so for some time in our view, we have used a smaller term premium than would be warranted by the historical data.

10-year forecast returns: 2019–2029 (p.a. %)

	US	EUR	UK	JP
Cash returns	0.7	0.2	0.7	-0.1

Source: Schroders, Thomson Reuters DataStream.

Fixed income returns

Developed market and EM local government bonds

The yield to maturity (YTM) for a risk-free bond considers the coupon income and capital gain or loss that the investor will realise by holding the bond to maturity. However, this also assumes that all coupons can be reinvested at the YTM to the maturity date. Therefore the relationship between initial yield on a 10-year US Treasury bond and its subsequent 10-year return will vary depending on the extent yields rise or fall in the subsequent 10 years. Despite this uncertainty in subsequent yield moves, Bogle (1991, 2015)[1] showed the strong empirical relationship between the initial yield on a 10-year US Treasury bond and its subsequent 10-year return since 1900.

We adopt this straightforward and intuitive approach to estimating 10-year returns expectations for government bonds in our framework. Specifically, we use the YTM on the 7–10 year Merrill Lynch index to estimate US, EUR, UK and JP bond returns for each calendar year. The return forecast for emerging market local debt was estimated by using the yield to maturity for the JPM GBI-EM Global Diversified Composite index. These estimates of 10-year government bonds act as a key 'anchor' for many of our other asset class return forecasts.

10-year forecast returns: 2019-2029 (p.a. %)

	US	EUR	UK	JP	EM local
Government bond forecasts	1.9	0.2	0.8	-0.2	5.7

Source: Schroders, ICE indices, JP Morgan indices.

Inflation-linked government bonds

The yields on US Treasury Inflation Protected Securities (TIPS) have declined dramatically since they were first issued in 1997. TIPS transaction volume was very low relative to nominal Treasuries during an initial period between 1999 and 2004. A high liquidity premium explains why US TIPS have exhibited higher excess returns than nominal Treasuries over this initial period and during the financial crisis in 2008–09.

To mitigate the impact of the initial period after TIPS were first issued, we estimate the return basis between US Treasury bonds and inflation-linked bonds by taking an expanding average from 2004 of monthly excess returns (annualised) between MLX 7–10y UST index and MLX 7–10y TIPS index.

We use a similar methodology for the return basis for nominal gilts over inflation-linked gilts, ignoring the stellar returns earned by UK linkers in 2016 after the UK referendum.

10-year forecast returns: 2019–2029 (p.a. %)

	US	UK
Inflation-linked bond forecasts	1.5	0.7

Source: Schroders, ICE indices.

[1]Bogle, J.C., 1991. Investing in the 1990s: Occam's razor revisited. Journal of Portfolio Management, 18(1), pp.88–91.
Bogle, J.C. and Nolan, M.W., 2015. Occam's Razor Redux: Establishing Reasonable Expectations for Financial Market Returns. Journal of Portfolio Management, 42(1), p.119.

Credit returns

Investment grade, high yield and emerging market debt

In estimating 10-year credit total returns, we consider the following return components: government bond returns, returns due to additional spread yield and returns due to downgrades and defaults.

Returns due to the additional spread yield component are estimated using the current OAS for a 7–10 year corporate bond index. For IG we take account of the effects of ratings downgrades in forecasting returns. Credit losses from defaults are estimated using long term S&P IG and HY default and recovery rates.

10-year forecast returns: 2019–2029 (p.a. %)

	US	EUR	UK	EMD
Investment grade bond forecasts	2.9	1.1	1.7	4.1
High yield bond forecasts	4.3			

Source: Schroders, ICE indices, S&P.

Equity returns

US equities

We estimate US equity returns by decomposing the total return estimate into the following components:

$$US\ equity\ return\ forecasts = bond\ yield + equity\ return\ premium\ (\text{valuation adjusted})$$

Using a long data series of US equities and bonds[2] we estimate the equity return premium (ERP) relative to 10-year bond yields. We first estimate a long run ERP using an expanding window of rolling excess annual returns of US equities over US bond yields since 1900. We then apply a valuation adjustment to this unconditional ERP estimate that accounts for the impact of starting equity valuations on the return forecast. The cyclically adjusted price earnings (CAPE) ratio has been extensively shown in the academic literature as having mean reversion properties and a strong relationship with future equity returns over a 5–10 year horizon. Hence we adjust the ERP forecast by adding the return implied by the CAPE ratio reverting to its 10-year average at the end of the subsequent decade.

Other equity markets

A key feature of our framework is to ensure that there is an internal consistency and coherence between return estimates across markets. Across our equity return forecasts we achieve this by estimating the returns to all other countries/regions based off the US estimates. Specifically, we take the current US ERP estimate (relative to US bonds) and multiply it by the country/region's historical ERP beta to US ERP. We use an expanding window from 2000 of quarterly data to estimate the betas. The beta-adjusted country/region ERP estimate is then added to its nominal bond return estimate to come up with the equity return forecast.

10-year forecast returns: 2019–2029 (p.a. %)

	Global	US	EUR	UK	JP	EM
Equity forecasts	5.7	6.0	4.1	3.9	3.0	9.0

Source: Schroders, MSCI indices, ICE indices, Shiller.

[2] http://www.econ.yale.edu/~shiller/data.htm

Alternatives

Commodities

We decompose the total returns to commodities into the following components:

$$Commodity\ total\ return\ forecasts = cash\ return + roll\ return + spot\ return$$

The roll yield return reflects the return from rolling from the current futures contract to a longer-term contract to maintain exposure to the commodity after the current contract has expired. The spot return simply reflects the change in the price of the commodity futures for immediate delivery. We estimate the roll return through the long run historical difference between excess returns of the Bloomberg Commodity index, which includes the roll return, and the spot return, which measures only price return. Additionally we model the forecast spot return using the long-run annualised historical average of monthly spot returns of the Bloomberg Commodity index back to 1990.

Private equity

For private equities, we estimate the illiquidity premium by take the long-term average excess returns over US equities and using the LPX50 index as our asset proxy.

Hedge funds

We use a 50/50 blend of the HFRI Fund of Funds composite index and the Credit Suisse Multi-Strategy Hedge Fund index as a proxy for the asset class returns. We estimate returns from hedge funds by taking the long-run average excess returns of this blended index over US cash.

10-year forecast returns: 2019–2029 (p.a. %)

	Commodities	US private equity	Hedge funds
Alternative asset forecasts	0.9	7.2	3.9

Source: Schroders, Bloomberg indices, HFRI indices, CS indices.

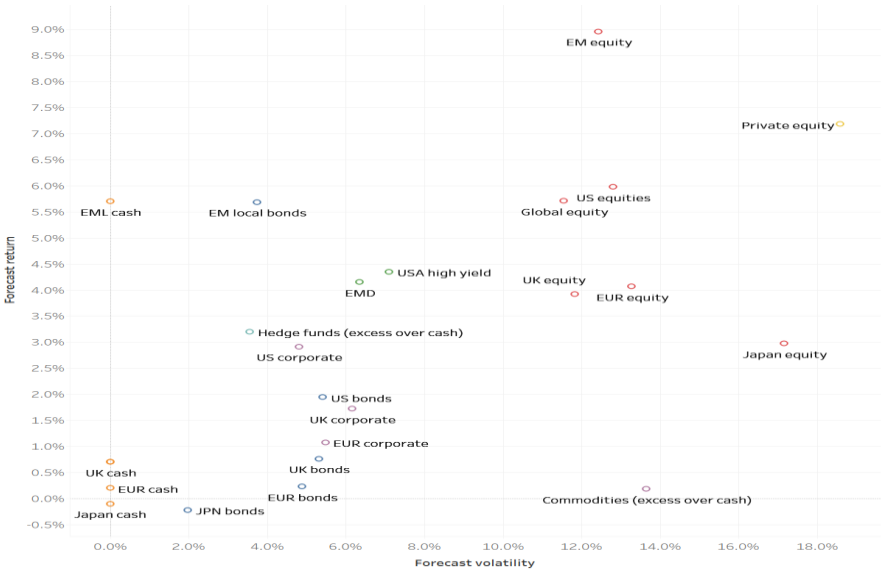
Volatility forecasts

For all assets we make an assumption that volatility will match that of the past 10 years. The measure we use is annualised monthly volatility of the asset's local currency returns, where available. These measures will be adjusted in future following further research.

10-year local currency return and risk forecasts: 2019–2029 (p.a. %)

		Forecast return	Forecast volatility
Cash	US	0.7	0
	EUR	0.2	0
	UK	0.7	0
	JP	-0.1	0
Government bonds	US	1.9	5.4
	EUR	0.2	4.9
	UK	0.8	5.3
	JP	-0.2	2.0
	EM local	5.7	3.7
Inflation-linked bonds	US	1.5	5.4
	UK	0.7	5.5
Investment grade bonds	US	2.9	4.8
	EUR	1.1	5.5
	UK	1.7	6.2
High yield bonds	US	4.3	7.1
	EMD	4.1	6.4
Equity	Global	5.7	11.6
	US	6.0	12.8
	EUR	4.1	13.3
	UK	3.9	11.8
	JP	3.0	17.2
	EM	9.0	12.4
Alternatives	Commodities	0.9	13.6
	Private equity	7.2	18.6
	Hedge funds	3.9	3.6

10-year return and risk expectations (2019–2029)



Source: Schroders, Thomson Reuters.

Appendix – Historical 10-year return forecasts (2010–2018)

Government bonds	US	EUR	UK	JP	EML
31 December 2010	3.0	4.0	3.3	0.9	6.7
30 December 2011	1.6	3.9	1.7	0.7	6.6
31 December 2012	1.4	2.5	1.5	0.6	5.5
31 December 2013	2.7	2.6	2.7	0.6	6.8
31 December 2014	2.1	0.9	1.6	0.2	6.5
31 December 2015	2.2	1.0	1.8	0.2	7.1
30 December 2016	2.4	0.7	1.0	0.0	6.8
29 December 2017	2.4	0.8	1.0	0.0	6.1
31 December 2018	2.7	0.9	1.2	-0.1	6.5

Credit	US IG	EUR IG	UK IG	US HY	EMD
31 December 2010	4.2	5.1	5.0	5.6	3.7
30 December 2011	3.5	5.6	4.5	6.2	4.0
31 December 2012	2.6	3.3	3.1	4.7	2.5
31 December 2013	3.8	3.4	3.7	4.8	4.3
31 December 2014	3.2	1.6	2.5	4.7	4.1
31 December 2015	3.5	1.9	2.9	5.7	4.8
30 December 2016	3.3	1.6	2.0	3.9	4.0
29 December 2017	3.1	1.5	1.9	3.8	3.5
31 December 2018	3.9	2.1	2.4	5.7	5.1

Equity	Global	US	EUR	UK	JP	EM
31 December 2010	9.8	9.5	10.6	8.5	5.7	12.8
30 December 2011	9.2	8.6	10.9	7.4	5.6	13.0
31 December 2012	8.2	7.9	8.9	6.7	5.3	11.3
31 December 2013	7.7	7.7	7.5	6.7	4.3	11.0
31 December 2014	6.2	6.3	5.0	5.0	3.4	10.1
31 December 2015	6.6	6.8	5.4	5.5	3.7	11.0
30 December 2016	6.0	6.2	4.4	4.1	3.0	10.1
29 December 2017	4.9	5.1	3.4	3.2	2.1	8.4
31 December 2018	6.7	7.0	5.1	4.6	3.4	10.0

The forecasts included should not be relied upon, are not guaranteed and are provided only as at the date of issue. Our forecasts are based on our own assumptions which may change. We accept no responsibility for any errors of fact or opinion and assume no obligation to provide you with any changes to our assumptions or forecasts. Forecasts and assumptions may be affected by external economic or other factors. The views and opinions contained herein are those of Schroder Investments Management's Economics team, and may not necessarily represent views expressed or reflected in other Schroders communications, strategies or funds. This document does not constitute an offer to sell or any solicitation of any offer to buy securities or any other instrument described in this document. The information and opinions contained in this document have been obtained from sources we consider to be reliable. No responsibility can be accepted for errors of fact or opinion. This does not exclude or restrict any duty or liability that Schroders has to its customers under the Financial Services and Markets Act 2000 (as amended from time to time) or any other regulatory system. Reliance should not be placed on the views and information in the document when taking individual investment and/or strategic decisions. For your security, communications may be taped or monitored.

Schroders

Schroder Investment Management Limited

1 London Wall Place, London EC2Y 5AU United Kingdom
Tel: + 44(0) 20 7658 6000

schroders.com

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