

## The point of low return

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THIS week's [column](#) looks at an exercise in projecting long-term returns by Standard Life, the insurance group. As the final paragraph tries to make clear, the returns from a diversified portfolio are likely to be quite low.

### Not so great expectations

Expected real returns on 60/40 equity bond portfolios, %



Source: AQR

Antti Ilmanen, a quant from the AQR group (and author of the excellent book *Expected Returns*, which [featured](#) in a previous column), makes the point even more succinctly in the attached graph. What does the line show? Mr Ilmanen's definition is that

*The "60/40 expected real return" is the forward-looking long-run real return of a 60/40 U.S. stock/bond portfolio. Stocks' forward-looking real return is proxied by an average of two measures: (i) smoothed earnings yield, or the inverse of the Shiller P/E and (ii) the sum of dividend yield and 1.5% (a proxy for long-run growth rate in earnings per share). Bonds' real yield is the difference of the 10-year Treasury yield and a measure of expected inflation over the next decade. Inflation expectations are proxied by an average of several survey forecasts; before these became available in 1978, statistical estimates are used.*

As you can see, the outlook for expected returns is as low as it has been in more than a century, with real US returns likely to be 2.3% a year. Overaggressive pension funds (and endowments) beware!

Two points are crucial. The first is the inverse relationship between starting valuations and likely future returns; when valuations are high, future returns are low and vice versa. The second is a point I have been emphasising for years. While equities can be cheap or dear relative to bonds, the level of bond yields is a useful signalling mechanism for investors. High nominal bond yields are a sign that investors expect the future level of short rates and nominal growth to be high; high real rates give the same message about real growth. Low rates imply low growth expectations. Yes, bond yields have been manipulated downwards by central banks but central banks have indulged in these operations because they fear the growth outlook is weak. That has an implication for profits growth.

Admittedly, there is a very weak relationship between GDP growth and equity returns. But that seems to be because growth expectations are priced into markets; equities in weak economies are underpriced. That brings us back to the starting valuation level, which is still too high in the US (see the [Shiller p/e](#), or indeed the dividend yield.)

FURTHER to the last post on the expected returns from a 60/40 equity bond US portfolio, Chris Brightman of Research Affiliates has produced this interesting table on the past returns from such a mix. The first four row cover long periods between 1871 and 2010, the rest relate to decadal returns.

## An awkward mix

US real growth rates, inflation and market returns, average annual % change

Date	Nominal returns				Inflation	Real returns			
	Equities	60/40*	Bonds	Cash	CPI	Equities	60/40*	Bonds	Cash
1871-2010	8.9	7.6	5.0	3.7	2.1	6.7	5.4	2.9	1.6
1911-2010	9.6	8.2	5.4	3.8	3.2	6.2	4.9	2.1	0.5
1911-1960	9.5	7.4	3.4	2.1	2.4	7.0	5.0	1.0	-0.2
1961-2010	9.7	9.0	7.4	5.4	4.1	5.4	4.8	3.2	1.3
1871-1880	9.3	8.3	6.4	4.6	-2.7	12.3	11.3	9.3	7.4
1881-1890	2.7	3.1	3.5	3.4	-1.8	4.6	5.0	5.5	5.3
1891-1900	8.7	6.9	3.8	2.8	-0.4	9.1	7.3	4.2	3.1
1901-1910	7.5	5.7	2.7	3.6	1.9	5.5	3.7	0.7	1.6
1911-1920	3.2	2.9	2.0	3.9	7.7	-4.2	-4.5	-5.3	-3.5
1921-1930	14.4	11.6	6.3	3.7	-1.8	16.6	13.7	8.3	5.7
1931-1940	1.8	3.9	4.6	0.4	-1.3	3.1	5.3	6.0	1.7
1941-1950	12.8	8.6	2.0	0.6	5.9	6.5	2.5	-3.6	-5.0
1951-1960	16.3	10.6	2.1	2.2	1.8	14.3	8.7	0.3	0.4
1961-1970	8.1	6.3	3.2	4.4	2.9	5.0	3.2	0.3	1.4
1971-1980	8.4	6.9	4.0	6.9	8.0	0.3	-1.1	-3.8	-1.0
1981-1990	13.9	14.3	14.4	8.8	4.5	9.1	9.4	9.5	4.2
1991-2000	17.6	14.4	9.4	4.8	2.7	14.5	11.4	6.5	2.1
2001-2010	1.2	3.8	6.7	2.2	2.3	-1.1	1.4	4.3	-0.1

Source: Research Affiliates based on data from Robert Shiller, Federal Reserve and Bureau of Labour Statistics

\*60% equity/40% bond portfolio

Note the benefits of diversification as shown by the smoothness of the nominal returns; there are no negative decades. Over the entire period, a 60/40 mix has returned 7.6% nominal or 5.4% real. There were only two decades of negative real returns for equities - the 1910s and the 2000s. In the latter decade, diversified investors were cushioned by their substantial gains on their bond portfolios. The former decade was marked by the First World War and unexpected inflation and so was dismal all around. Diversification didn't work in the 1970s either when the second worst real return for bonds was accompanied by the third worst decade for shares; again inflation was the culprit.

Here is the rub. If the way of getting out of the debt trap is for central banks to tolerate higher inflation (and that does seem to be the direction in which we are heading) it seems likely that the returns for diversified investors will be poor. While equities offer a better hedge against inflation than bonds, they are still not a good one; investors will want a higher dividend yield at 5% inflation than they do at 2% inflation. Other things being equal, a shift in the yield from 2% to 4% means a halving in share prices. So although dividends might rise in nominal terms, the market will have to run hard to stay in the same place.

One more thing to note. In nominal terms, the 1980s and 1990s were the two best decades for the 60/40 split, both almost double the historic average. They were followed by the third worst decade. But reversion to the mean may not be over if the AQR [chart](#) is correct.

## A useful stab at projecting investment returns over the next decade

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WHAT will be the level of returns from financial assets over the next decade? Answer that question correctly and your fortune is made. Andrew Milligan, the head of global strategy at Standard Life, an insurance company, has bravely undertaken this very challenge in a recent research note.

Such exercises are extremely useful, even though the projections are almost certain not to be exactly right. All too often investors (such as pension funds) are blithely optimistic that returns will match their goals. Forcing investors to spell out their assumptions can induce them to take a more realistic view.

The biggest mistake investors make is extrapolation. American pension funds often assume future annual returns of 7.5% or 8% because they have achieved those figures over the past 30 years. But the starting-point for such calculations is 1982, when Treasury-bond yields were in double digits and the dividend yield on US equities was 6.2%. Such returns are far harder to achieve when the starting yields on both assets are around 2%.

As Mr Milligan points out, the initial valuation is of little relevance to returns over the short term but matters hugely over periods as long as a decade. An object lesson in its importance was provided in the late 1990s when investors piled into equities at historically high valuations, without reflecting on the profit growth that would be needed to justify the fancy ratings. Returns in the first decade of the 21st century were duly dismal.

### Buy the numbers

Projected ten-year inflation-adjusted returns  
Dec 31st 2012, annual % change, low/high range

Asset	United States	Europe	Britain
Cash	-0.25/1.50	0.50/1.75	0.75/2.50
Gov't bonds	-4.00/1.25	-2.50/1.25	-3.75/0.50
Credit*	-3.00/3.25	-2.75/3.00	-3.50/2.50
Equities	-1.00/8.00	0.75/9.50	1.00/9.00
Property	0.25/8.75	1.00/9.50	nil/8.00

Source: Standard  
Life Investments

\*Investment-grade  
corporate bonds

When it comes to cash and bonds the conventional approach is to assume that the future return will equal the current yield. But there is a clear disparity between the likely outcome for the two asset classes. With short-term rates close to zero, the current yield is the low point of the likely range for cash returns over the next decade. But with bond yields at 2% or below in America, Germany and Japan, current yields are at the high end of the range for likely bond returns. The risk is of a rise in yields to something like the historical norm of 4-6% and a fall in price that will translate into a negative return. Government bonds look like the least attractive asset to hold as a result (see table).

For equities the calculations are more complex. The simplest approach is to take the dividend yield and add the expected rate of dividend growth. The next step is to make an adjustment for valuation. You can assume either that the valuation will remain unchanged or that it will revert to the historical average. If reversion occurs then expected returns in expensive markets will be lower than the dividend-yield-plus-growth formula would suggest, and returns in cheap markets will be higher.

For the American market, the starting dividend yield of 2% handicaps future returns, although most people would chuck in a further 0.5-1% a year to allow for share buy-backs. Real dividend growth has averaged 1.4% a year since 1900 in America, and Mr Milligan suggests a range of 0-3%. Excluding the effect of valuations, that gives a range of 3-6% for real returns. In fact, Standard Life posits a wider range of minus 1%-8%, suggesting the potential for a significant change in valuation.

But achieving the top end of this range will be difficult, given the starting valuation of the American market. At 22, the cyclically adjusted price-earnings ratio (as calculated by Robert Shiller of Yale University) is well above the historical average. When GMO, a fund-management group, conducted a similar exercise last year, it calculated that real returns from American equities over the next seven years would be zero if valuations reverted to the mean. European and British equities both have lower starting valuations than the US market and the potential upside is therefore slightly higher.

The surprise asset class of the next decade could yet be property, which became something of a dirty word after 2007. Rental yields are 6% or so in the main markets, an attractive income stream when European corporate bonds yield just 4%. Property will benefit if developed economies recover; and it is usually a hedge against inflation. Standard Life's projections for real returns from American property are slightly above its equities estimates; European property looks even more appealing.

It would be foolish to be too precise. But assume for the moment that real returns are in the middle of Standard's range and investors put half their money into equities and split the rest between cash, government bonds, corporate bonds and property. A diversified portfolio of this sort would return anywhere between 2.2% in real terms a year in America to 3.3% in Europe. Respectable enough, but not as much as investors are probably counting on.