Government Actuary's Department

Investment News

Monthly Bulletin from the Insurance & Investment Team

December 2018

Last Month in Brief

In November, global equity markets exhibited slightly positive growth after October suffered from the sharpest one month decline for global equities since May 2012. However, the UK equity market had another consecutive month of negative performance amidst ongoing uncertainty surrounding Brexit and declining oil prices. Brent crude saw its largest monthly fall for over 10 years as oil prices slumped to $59 a barrel over concerns of excess supply.

US 10-year Treasury yields rose to 3.24% following the US mid-term elections, its highest level since 2011 before closing the month at 2.99%. UK 10-year yields continued their fall moving from 1.44% to 1.36%, while Italy's fell from 3.41% to 3.23% ahead of news of a potential compromise with the EU over budget plans.

The Office for National Statistics published its quarterly GDP estimate for the UK of 0.6% for Q3. This growth was driven by increases in the services sector of 0.3%, and in the construction sector of 2.1%. Quarterly GDP grew at its fastest rate since Q4 2016, however there were concerns that longer-term economic growth would remain subdued.

Chart 1: Equity Indices
All markets rose slightly at the start of the month before falling again. The FTSE finished slightly lower at the end of the month.

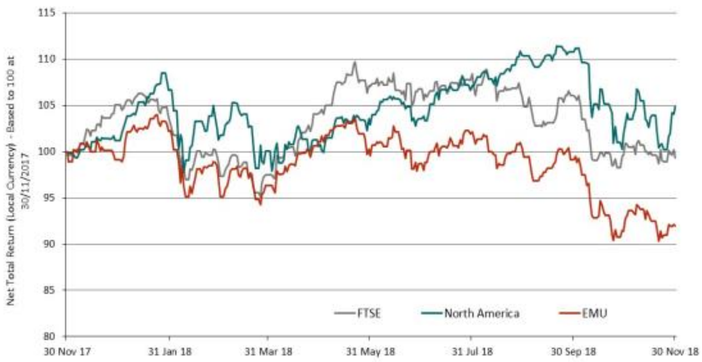


Chart 2: Sterling Credit Spreads
Credit spreads increased over the month.

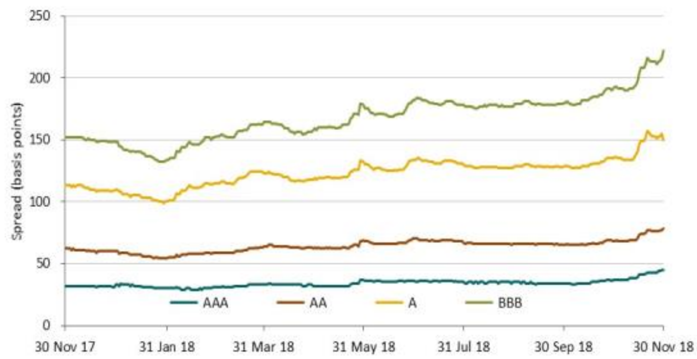


Chart 3: Gilt Yields
Nominal and real gilt yields for 5-year bonds fell over November, whilst 25-year bond yields grew over the month.

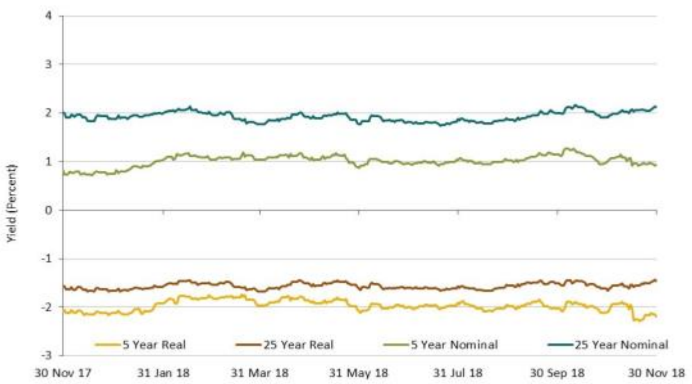
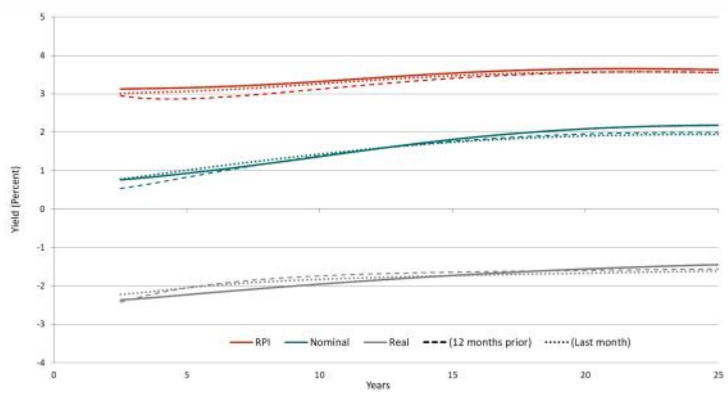


Chart 4: Gilt Spot Curves
The inflation gilt yield curves increased over November. At shorter durations, nominal and real yields fell over the month, but were more stable for the longer durations.



Source: Bloomberg, Business Insider, MSCI, Merrill Lynch Bank of America and Bank of England.

	Latest	Previous		Latest	Previous
CPI (annual change)	+2.2%	+2.2%	**Base rate**	0.75%	0.75%
PPF 7800 funding ratio	93.6%	97.7%	**$/£ exchange rate**	1.28	1.28
Halifax house prices (monthly change)*	-1.4%	+0.7%	**VIX (volatility) index**	18.07	21.23

** Halifax have recently changed their methodology for calculating the above figures so the figures may not be consistent with previous updates*

For monthly published indices "Latest" and "Previous" refers to the two most recently published statistics, otherwise numbers are quoted as at the month end.

Government Actuary's Department, Finlaison House, 15-17 Furnival Street, London, EC4A 1AB Telephone +44 (0)20 7211 2601

Factor Investing

What is factor investing?

When considering stock returns, it is useful to think about the attributes, or "factors", which might explain common risk and return characteristics. Broadly speaking, there are three main categories of factors: macroeconomic, statistical and fundamental.

Macroeconomic factors relate to measures of the economy, as a whole, such as GDP and inflation. Statistical factors are those quantified in statistical models used to predict stock returns that do not necessarily have an intuitive meaning and are not specified in advance. Lastly, fundamental factors examine the observable characteristics of particular stocks and are the most widely-used type of factors and are what we will consider further.

Factor investing, also known as strategic beta, is an increasingly popular investment approach which chooses stocks with reference to the factors that are believed to provide increased returns. By breaking down market returns into their basic components and delving into the underlying drivers, investors hope to systematically exploit their characteristics whilst reaping the benefits of diversification by selecting different factors with low correlations. There exist a number of smart beta funds which allow investing in stocks that strongly exhibit one (or more) of these factors.

Commonly used factors

The most commonly used factors are the value, size, volatility and momentum of a stock, which are described below:

Value is one of the most traditional factors favoured by investors. Value stocks are those which are perceived to have low prices with reference to their perceived fundamental value by using indicators such as the price to earnings ratio or the price to dividends ratio. Investors will go long on stocks which they believe have a greater value than their current price would indicate and go short on stocks with high prices relative to their underlying value.

The relative **size** of the company is indicated by market capitalization. Historical returns have tended to show that small-cap stocks outperform their large-cap counterparts. Thus using size as factor tends to tilt the portfolio in favour of small-cap stocks.

Systematic risks (market beta) should be the main source of **volatility** within a well-diversified equity portfolio. It has been documented that stocks with higher volatility do not significantly outperform low volatility stocks. Rather, empirical evidence suggests that investors earn greater returns from low beta stocks when a risk adjustment is taken into account.

There is a perception that stocks that have outperformed the market in the past exhibit strong returns going forward. **Momentum** strategies examine the relative returns over a 3 month to one year period.

There is considerable choice in the factors which investors use, however historical performance varies.

For example, in Figure 1, we can see that the value and momentum factors have provided higher returns than **growth** stocks (which combine earnings and sales growth per share with long-term earnings growth), and **liquidity** factors (which denote the ease of completing a transaction without incurring excess cost). Neither the growth nor liquidity factors are widely-used for factor investing.

Figure 1: Comparison of factor performance

Source: MSCI

Benefits of factor investing

Proponents of factor investing argue that it provides greater cost effective investment; blending aspects of active and passive investing to achieve better net performance. Advocates argue that smart beta funds allow investors to capture, and take advantage of, various anomalies in market pricing, whilst retaining benefits of traditional index funds such as diversification, transparency, liquidity and low transaction fees. The use of models and data analysis for stock selection also means that fees are often slightly cheaper than traditional active funds.

What are the pitfalls?

Whilst the benefits of smart beta funds are widely documented, potential pitfalls are often understated. Even when using factor investing, it is paramount that traditional diversification measures throughout an industry and region are still used.

Many of the assumptions about factors used today are based on data mining rather than financial economics which may result in overfitting and lack of consideration for actual economic effects. Long-run correlations between factors mask the time-varying nature of the correlations and possibly some of the systematic components of factor performance in the short term. Furthermore, during crises, negatively correlated assets can become positively correlated and thereby reduce or even negate all diversification benefits.

Future of factor investing

Over the past decade, we have witnessed an increase in the popularity of smart beta funds, with the total assets under management surpassing $1tn in late 2017. That trend has continued into 2018 with 50% of institutional investors adding factor expertise to their teams.

Ultimately, there are significant risks posed by factor investing; specifically because investing is a forward looking activity and it's easy to create a winning strategy based on back-tested results. Nevertheless, the industry wide shift to more cost effective investment vehicles is likely to persist, thus factor investing will likely increase in prevalence.

Contact Information

Colin Wilson
Deputy Government Actuary
T: 020 7211 2672
E: colin.wilson@gad.gov.uk

Aidan Smith
Chief Actuary
T: 020 7211 2632
E: aidan.smith@gad.gov.uk

Andrew Jinks
Deputy Chief Actuary
T: 020 7211 2655
E: andrew.jinks@gad.gov.uk

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