Government Actuary's Department

Investment News

Monthly Bulletin from the Insurance & Investment Team

November 2017

Last Month in Brief

The Bank of England raised interest rates to 0.5%, from 0.25%, in a 7-2 vote. This was the first increase in 10 years, bringing rates back up to pre-August 2016 levels. The Governor of the Bank of England explained this increase was a response to record employment, global economic growth and rising inflation. The Monetary Policy Committee highlighted that there would likely be two further increases over the next three years. Many investors were, however, expecting the Governor to indicate greater interest rate rises in the near future. As a result, the pound fell ~1% against the dollar and euro.

The OBR has stated it anticipates significantly reducing it's forecast for productivity in November's Economic and Fiscal Outlook. Average productivity growth over the last five years has been 0.2%, compared to forecasts in March of 1.6%. This will remove up to two thirds of the Government's £26bn fiscal headroom and is likely to impact the Autumn Budget this month.

The US stock market saw strong growth throughout October, with the Dow, S&P 500 and Nasdaq all on track for their largest percentage rise since February. There will be a number of important announcements in November which may affect the US stock market. These include President Donald Trump's selection of a new head of the Central Bank, the Federal Reserve's monetary policy announcement and a tax bill from Congress.

Chart 1: Equity Indices
Equity markets rose over the month

Chart 2: Sterling Credit Spreads
Credit spreads were stable over the month

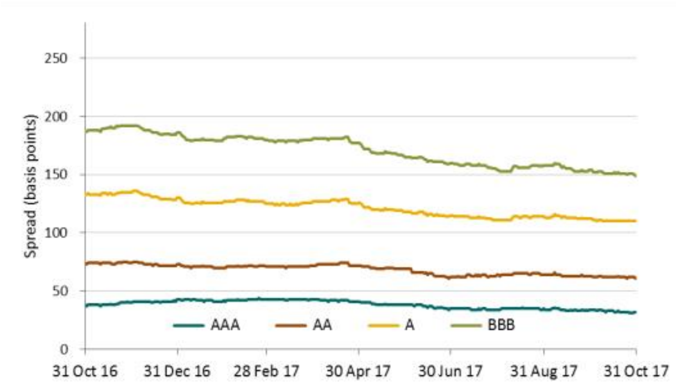


Chart 3: Gilt Yields
Real and nominal gilt yields were stable over the month

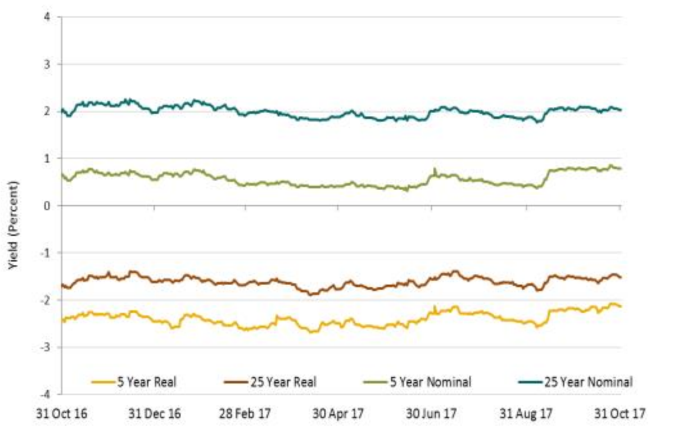
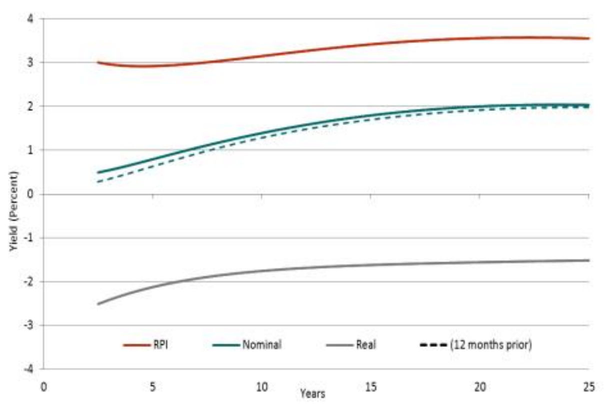


Chart 4: Gilt Spot Curves*
The yield curve was stable over the month



** Data for the real and inflation gilt spot curves prior to 1st January 2017 is temporarily unavailable from the Bank of England*

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

	Latest	Previous		Latest	Previous
CPI (annual change)	+3.0%	+2.9%	**Base rate**	0.5%	0.25%
PPF 7800 funding ratio	90.6%	87.6%	**$/£ exchange rate**	1.33	1.34
Halifax house prices (monthly change)*	0.3%	0.8%	**VIX (volatility) index**	10.18	9.51

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

History of Equity Indices

This month we look back at the history of Equity Indices and the role they play in today's investment world. We define an Equity Index as a metric that is used to track the changes in value of a selection of companies. The underlying value of an index is dependent on the share prices of the companies involved.

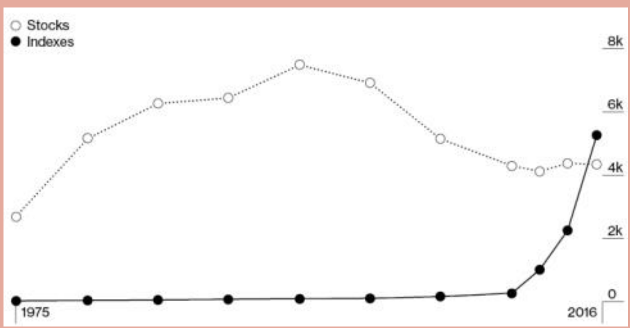
Back to the roots

Charles H. Dow believed that stock market trends were an indicator of the general health of traded businesses. On July 3rd 1884 Dow began to include the Dow Jones Average (renamed to the Dow Jones Transportation Average in 1970) in the *Customer's Afternoon Letter*, a 2 page financial news bulletin that was the precursor to the Wall Street Journal. This average was the first price weighted index that has been documented. It was based on 9 railroads and 2 non-rail transport companies, as Dow believed that transportation was a key driving factor of the economy.

The first edition of the *Wall Street Journal* was printed July 8th 1889, but it wasn't until May 26th 1896 that the now familiar Dow Jones Industrial Average ('DJIA') was introduced. It originally consisted of 12 industrial companies that produced a wide range of products from cotton to coal. The very first calculation of the DJIA was simply the average of the 12 share prices. Since then the formula has been adjusted to allow for factors such as changes in the number of shares within a company.

Stock market indices have become so popular that they are now more numerous than stocks themselves in the US (see figure 1).

Figure 1: US Stocks against total number of indices



DATA: Bloomberg Intelligence, S C. Bernstein, World Bank. Cash Flows as of March 31: Graphic by Bloomberg Businessweek

Types of Equity Index

Today, there are a wide range of indices monitoring the performance of different markets and size of companies. Indices have a wide range of uses by investors from estimating future movements in the market, to forming the basis for the creation of a derivative instrument relating to a specific market.

The type of equity index can often dictate its use to investors. Indexes typically utilised by exchange-traded funds ('ETF'), which are discussed in more detail later in this article, broadly fall into one of three categories:

> Price-Weighted;
> Value-Weighted; or
> Unweighted.

In a price-weighted index, such as the Dow Jones Industrial Average, the stocks with higher prices have a greater impact on the index. For a value-weighted index, such as the MSCI indices, stocks are attributed a value based on their price multiplied by the amount of outstanding shares (known as the free float). Whereas, for an unweighted index, all stocks have an equal impact on the index price.

The Rise of ETFs

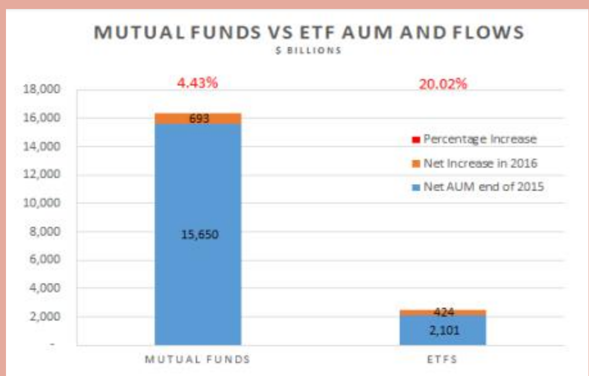
As technology has advanced, the face of equity indices has changed drastically. Investors can use bespoke indices in specific sectors to better judge the potential value of an investment. Calculations of index values can be done almost instantaneously for thousands of constituent companies, allowing real time updates on index values. These advances allowed for a new kind of investment, an ETF .

An ETF is a fund designed to track the value of an equity index like the Dow Jones or the S&P 500 etc. When an investor purchases shares in an ETF, they are buying shares of a portfolio that tracks the yield and return of the index it follows. This means the investment largely mirrors the performance of the associated index.

The first ETF introduced was the SPDR S&P 500 ETF (SPY) in 1993, and it tracked the value of the S&P 500. It is the ETF with the most assets under management ('AUM') today. Assuming dividend pay-outs are reinvested, £10,000 invested in the SPY in 2007 would be worth ~£20,300 today, matching the return of the S&P 500. The typical administrative costs associated with an ETF are lower than actively managed funds, usually less than 0.20% per annum.

As of 30th April 2017, exchange-traded funds and products topped $4tn managed. This value is dwarfed by the total value of assets managed by mutual funds. However growth in the ETF market was notable last year, with a 20% increase in net AUM, compared with 4.4% in Mutual Funds (see figure 2). This increase could indicate the market's anticipation that ETFs will continue to grow and that equity indices will continue to be an important gauge on the performance of different markets.

Figure 2: AUM Growth for 2017 Q1&Q2 ETF vs Mutual Funds



Data: 2017 Investment Company Fact Book

Previous update on ETFs

See GAD's [March 2010 update] on ETFs for more information on this topic.

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