JAGGER & A SSOCIATES

Investment Update

December 2018

Investment Headlines & Comment

- A US rate rise this month and other market concerns saw significant volatility in many equity markets.
- The **Euro** reached its 20th anniversary this month, still a political "will" vs an economic "don't" (see <u>December 2011</u>).
- 2018 as a whole has seen few assets delivering positive returns, and a rise in volatility in many cases as well.

This month we consider the intra-month experience that UK Government bond investors have just had, partly through equity market instability, and partly through the UK's current political turmoil. If a week is a long time in politics, December 2018 felt like an eternity, and there is the prospect of worse to come in January 2019.

Figure 1a below shows the movements in various gilt and index-linked gilt yields over the course of business days in December, ending not terribly far from where they started, but with some intra-month movement.

Figure 1a: UK Government bond yields

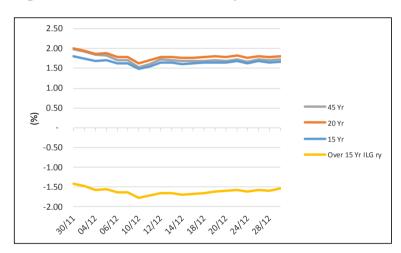
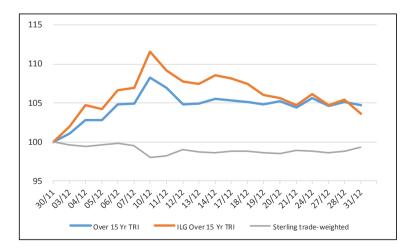


Figure 1b: Total return indices and Sterling



Sources: Bank of England, FTSE

Such is the longevity profile of UK Government bonds, even these modest moves led to some spectacular day-to-day moves in the total returns associated with these assets. Figure 1b shows the cumulative effect for the Over 15 Year indices for the conventional and index-linked varieties (starting each asset from a notional 100), and also the movement in sterling (on a trade-weighted basis).

It was quite striking how far the long-dated index-linked market moved in the run-up to the Conservative leadership confidence vote, only to then shed much of it over the following fortnight

The fact that Sterling did not move particularly far over the entire month is also of interest – given the increased mid-month uncertainty, it could have arguably fallen further at that time, but the fact that it didn't suggests that the post-Referendum clobbering remains a reasonable indicator of how much pessimism currency markets needed to factor in.

As for what happens next, there are several possible outcomes, so it would be foolish to predict which one will win out (but it is fair to say that IF the Referendum result is to

be implemented, the Withdrawal Agreement appears preferable to the instability of a no-deal exit, and also to a second attempt at an Agreement in the remaining months). However, there is a parallel with Tom Stoppard's Rosencrantz at breaking point, saying "Eternity is a terrible thing. When's it going to end?" We share his distress.

December 2018



Asset Returns and Financial Measures [in Sterling unless marked otherwise]

The cells in bold with light shading show the best and worst performing asset classes from each column. The commodities and \$-based and unhedged-£-conversion hedge fund returns are excluded from that.

[**NB** Future returns <u>cannot</u> be inferred from this table alone, but coupled with other items within *Update*, readers can make inferences as to whether they should be higher or lower than the past returns shown below.]

Table 1: Investment Data to 31 December 2018

Asset Class	1 month	3 months	12 months	3 years	5 years	10 years	20 years
	(%)	(%)	(%)	(% p.a.)	(% p.a.)	(% p.a.)	(% p.a.)
UK Equities	-3.7	-10.2	-9.5	6.1	4.1	9.1	5.0
Overseas Equities	-7.0	-10.6	-3.1	12.9	11.0	11.7	6.8
US Equities	-8.9	-11.5	1.4	14.7	14.2	14.5	5.6
Europe ex UK Equities	-4.6	-10.8	-9.1	8.8	6.0	8.0	7.1
Japan Equities	-6.7	-12.4	-7.6	9.1	9.4	7.0	4.8
Pacific ex Japan Equities	-2.5	-6.5	-8.5	13.2	9.1	11.7	9.9
Emerging Markets	-2.4	-5.2	-8.9	15.1	7.5	9.9	10.5
UK Long-dated Gilts	4.7	2.6	0.3	7.1	9.2	7.0	6.1
UK Long-dated Corp. Bonds	3.2	-0.5	-4.1	6.4	7.2	8.2	6.2
UK Over 5 Yrs Index-Linked Gilts	2.7	2.0	-0.4	9.2	9.3	8.4	6.9
High Yield (Global)	-0.9	-1.5	2.7	12.3	8.8	12.4	8.0
Overseas Bonds	2.7	4.6	5.9	7.9	6.6	2.9	5.2
Property *	0.3	1.4	8.7	7.4	11.2	8.5	8.4
Cash	0.1	0.2	0.7	0.5	0.5	0.7	2.9
Commodities £-converted	-7.6	-21.1	-8.5	5.5	-9.9	-4.5	1.9
Hedge Funds original \$ basis *	-0.3	-3.7	-1.1	3.5	2.9	5.2	6.4
Illustrative £-converted version *	-0.2	-1.9	4.9	9.3	8.2	7.2	7.8
Euro relative to Sterling	1.1	0.8	1.1	6.8	1.5	-0.7	1.2
US \$ relative to Sterling		+				<u> </u>	
Japanese Yen relative to Sterling	0.2	2.4	6.2	5.0	5.4	1.4	1.3
Japanese Ten relative to Sterning	3.7	6.0	9.1	8.3	4.5	-0.7	1.5
Sterling trade weighted	-0.7	-1.5	-1.5	-5.2	-1.9	0.4	-1.1
Price Inflation (RPI) *	0.0	0.1	3.2	3.1	2.5	2.8	2.8
Price Inflation (CPI) *	0.3	0.5	2.3	2.2	1.5	2.2	2.0
Price Inflation (RPIX) *	0.0	0.1	3.1	3.2	2.5	3.1	2.9
Earnings Inflation **	1.1	0.3	4.2	3.2	2.7	2.1	3.1
All Share Capital Growth	-3.9	-11.0	-13.0	2.2	0.4	5.2	1.6
Dividend Growth	3.1	4.5	8.1	8.8	6.7	5.2	4.6
Earnings Growth	-0.4	-1.9	57.5	17.6	5.3	2.6	4.6
Lamings Olowin	-0.4	-1.9	31.3	1/.0	5.5	∠.0	4./

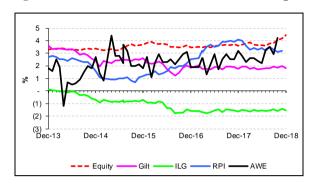
Note: All market returns are total returns for pension funds with income reinvested monthly. Indices used are as follows:

- $\bullet \ \ UK\ Equities\ (incl.\ dividends\ and\ earnings) FT\text{-}A\ All\ Share.$
- Overseas Equities (incl. regions) blend of FT All-World / World subindices
- Emerging Markets from MSCI US \$ based total return index (overall Index to 31 Oct 2001, Free Index from 1 Nov 2001 to take account of foreign investment restrictions), conversion to UK £ by J&A.
- UK Bonds FT-A indices (Gilts Over 15 Years, ILG Over 5 Years)
- UK Corporate Bonds iBoxx Non-Gilt Over 15 Year index (all credit ratings combined)
- High Yield Merrill Lynch Global, £ Unhedged
- Overseas Bonds JP Morgan Traded Unhedged World ex UK
- Property MSCI IPD UK Monthly Property Index

- Commodities GSCI Total Return, converted to UK £ by J&A
- Hedge Funds Composite HFRI US \$ based total return index plus converted to UK £ by J&A. NB A smooth "cash+x%" return will only be shown in the base 'hedged' currency, here the US \$.
- Cash an indicative index based on the three-month London Interbank Sterling mid-rate, calculated internally by J&A
- Price and earnings inflation RPI, CPI, RPIX, and Average Weekly Earnings (whole economy, not seasonally adjusted, latest provisional data)
- Currency data London close, from the Financial Times
- * denotes data lagged by 1 month, ** by 2 months these reflect the later publication dates of these data items.

Yields and Yield Gaps

Figure 2: Yields, Inflation and Yield Gaps



The yield gap is a measure of expected average future inflation, derived as long bond yield minus ILG yield.

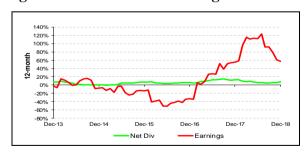


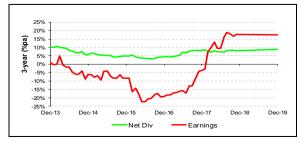
The gap gives a current expectation around 3.3% for longer-term inflation *including the risk premium for gilts, relative to index-linked gilts.*

Growth in Earnings and Dividends

These charts show movements in rolling 12-month and 3-year dividend and earnings growth for UK Equities over the last 5 years. [NB the charts have different scales]

Figure 3: Dividend & Earnings Growth

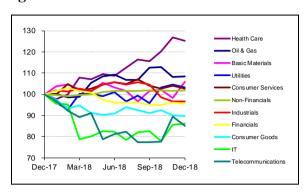




Note: Earnings data from mid 2015 onwards is under review by FTSE Russell as one-off events may be affecting the prospective P/E ratios

UK Equity Sector Returns

Figure 4a: Sectors relative to All Share



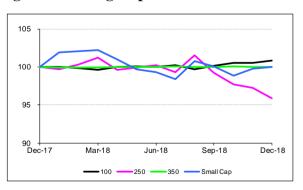
Note: Sector labels for relative lines are in end-value order

There was a modest fall this month in the rolling 12-month sector dispersion (from 44% to 40%).

(% absolute return)	1 mth	3 mth	12 mth
Oil & Gas	-3.5	-13.5	-1.8
Basic Materials	4.0	-6.3	-4.1
Industrials	-3.7	-17.0	-12.5
Consumer Goods	-3.9	-11.7	-18.7
Health Care	-4.9	-2.7	13.3
Consumer Services	-5.2	-11.6	-7.2
Telecommunications	-8.5	-1.5	-23.1
Utilities	-4.9	-3.1	-6.5
Non-Financials	-3.6	-10.4	-8.0
Financials	-4.3	-9.8	-13.6
IT	-3.2	-6.4	-22.2
All Share	-3.7	-10.2	-9.5

UK Equity Size Returns

Figure 4b: Size groups relative to All Share



Mid Cap fell in relative terms this month, but Small Cap rose very slightly.

Sources for charts on this page: Financial Times, Office for National Statistics, J&A

Jagger & Associates Investment Update

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Bond market information

Figure 5: £ Non-Gilt Credit Margins

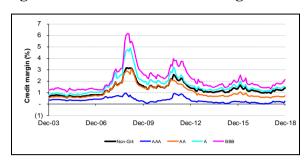


Table 2a: Over 15 Yr Corporate Yields & Margins

Month End	iBoxx Corp AA Y'ld (%)	FT 20 yr Gilt (%)	Margin (%)
Jul '18	2.70	1.79	0.91
Aug '18	2.66	1.79	0.87
Sep '18	2.79	1.93	0.86
Oct '18	2.74	1.86	0.88
Nov '18	2.96	2.00	0.96
Dec '18	2.75	1.81	0.94

Tables 2b, 2c: £ Market Size (£bn) and Maturity

Category	Mkt Val @ Dec 18 & 15, 12			Weight (%)
Gilts (42)	1,323 1,211 1,112			69.9
Non Gilts (1,093)	569	525	533	30.1
AAA (147)	119	100	135	6.3
AA (168)	83	91	74	4.4
A (326)	153	155	177	8.1
BBB (452)	215	179	147	11.4

Category	Mkt Val @		W't	Dur'n
	Dec 18 & 15		(%)	(yrs)
Gilts (42)	1,323	1,211	69.9	12.0
< 5 Yrs (11)	350	350	18.5	2.7
5–15 Yrs (11)	347	334	18.4	7.8
> 15 Yrs (20)	626	528	33.1	19.6
Non Gilts (1,093)	569	525	30.1	7.7
< 5 Yrs (376)	187	156	9.9	2.6
5–15 Yrs (482)	243	225	12.9	7.3
> 15 Yrs (235)	139	144	7.3	15.2

Tables 2d, 2e: € Market Size and Maturity (Dec 18)

Category	Mkt Val (€bn)	Weight (%)
Sovereigns (357)	6,200	59.2
Non Sovereigns	4,266	40.8
AAA (888)	1,211	11.6
AA (717)	1,084	10.4
A (989)	900	8.6
BBB (1,314)	1,071	10.2

Category	Mkt Val (€bn)	Weight (%)
1 – 3 Yrs (1,009)	2,354	22.5
3 – 5 Yrs (1,138)	2,248	21.5
5 – 7 Yrs (883)	1,725	16.5
7 – 10 Yrs (788)	1,862	17.8
10+ Yrs (447)	2,278	21.8

Table 2f: Breakdown of £ Index-Linked Market

Category (Number of issues)	Mkt Val (£bn @ Dec 18 & 15)		W't (%)	Dur'n (yrs)
Gilts (30)	675	476	100.0	21.8
< 5 Yrs (3)	59	49	8.7	2.3
5 – 15 Yrs (8)	160	123	23.7	8.7
> 15 Yrs (19)	456	304	67.6	28.9

Table 2g: High Yield bond yields (BB-B indices)

Month	US	Euro	Sterling
End	(%)	(%)	(%)
Jul '18	6.06	3.51	5.65
Aug '18	6.02	3.61	5.68
Sep '18	6.02	3.58	5.78
Oct '18	6.45	3.91	5.84
Nov '18	6.71	4.37	6.37
Dec '18	7.26	4.46	6.77

Sources: DMO, FTSE, iBoxx, J&A, MLX

£ Gilt Market "main" Issuance

- o £2.50bn, 1% 2024 (1.86x,0.97%, 0%, Oct '18)
- o £2.01bn, 13/4% 2049 (2.40x, 1.91%, 15%, Sept '18)
- \circ £0.50bn IL¹/₈% 2048 (2.12x, ry -1.69%, 0%, Sept '18)

Note: Issuance amounts are nominals. The first % figure in each row is the yield or real yield. The second % figure is the additional amount taken up under the Post Auction Option Facility (PAOF), as a % of the amount of the issue. PAOF does not apply for syndication cases.

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