JAGGER & A SSOCIATES

Investment Update

March 2018

Investment Headlines & Comment

- A poor month for many **equity** markets, but a good month for **Sterling**.
- A good month for **gilts**, but the credit margin on **corporate bonds** increased.
- The last 12 months have seen many assets with a combination of volatility and low returns.

Feature SectionThis month we consider part of the latest <u>HM Treasury debt management report</u>. In section 2 of it, there is a useful summary of the risks that are considered when deciding on possible debt management strategies:

- interest rate risk interest rate exposure arising when new debt is issued
- refinancing risk interest rate exposure arising when debt is rolled over, with an increase in refinancing risk if redemptions are concentrated in particular years
- inflation risk exposure to inflation from the indexation of coupons and principal of index-linked gilts
- **liquidity risk** the risk that the government may not be able to borrow from a particular part of the market in the required size at a particular time, because that part of the market is insufficiently liquid
- **execution risk** the risk that the government is not able to sell the offered amount of debt at a particular time, or must sell it at a large discount to the market price.

Section 2.20 states that subject to cost-effective financing, the government will maintain a relatively long average maturity debt portfolio to limit exposure to refinancing risk, and issuance will be over a range of maturities, taking account of structural demand, the diversity of the investor base *and the government's preferences for inflation exposure* [our italics]. Over the last 4 years, around 25% of the government's annual debt issuance has been through index-linked gilts, which are linked to the Retail Prices Index (RPI). Figure 1a shows ILG market values by maturity date, and it is perhaps surprisingly evenly spread.

The index-linked proportion of the UK's debt stock is considerably higher than in other G7 countries and is more than double that of Italy, the next closest G7 member (see Figure 1b). To some extent, this reflects the particular strength of demand for index-linked gilts in the UK, especially from institutional investors, such as domestic pension funds and insurance companies. The volume of index-linked gilt issuance in recent years, combined with the longer average maturity for index-linked gilts of 20 years (compared with 14 years for conventional gilts), has consequences for the long-term inflation exposure in the public finances

Figure 1a: Index-Linked Gilt Market Values

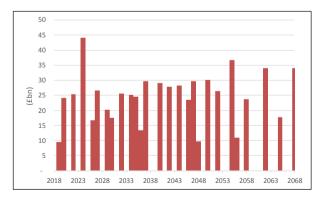
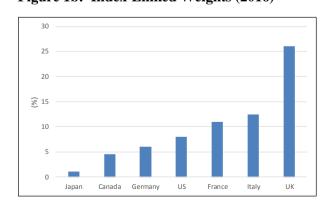


Figure 1b: Index-Linked Weights (2016)



 $Sources: FTSE,\,DMO,\,OECD\,Sovereign\,Borrowing\,\,Outlook\,\,2017$

The report goes on to indicate that the ILG issuance will be reduced to about 21% in the next year. From an investor perspective, this is likely to have an effect on the risk premium for gilts relative to index-linked gilts, mentioned under Figure 2. At the moment, implied future inflation is probably overstated by some 0.7%, and the reduction of ILG supply is likely to increase this, making pension fund valuations even more subjective.

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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 March 2018 [in practice, 29 March, due to Easter]

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	-1.8	-6.9	1.2	5.9	6.6	6.7	5.1
Overseas Equities	-4.0	-4.2	3.1	11.3	12.1	10.3	7.2
US Equities	-4.2	-4.2	1.8	12.7	15.1	13.5	6.3
Europe ex UK Equities	-3.3	-4.4	4.3	8.8	9.7	6.1	7.5
Japan Equities	-3.6	-2.6	7.5	11.4	11.6	8.3	5.3
Pacific ex Japan Equities	-4.1	-4.4	6.0	10.2	8.4	9.3	9.5
Emerging Markets	-3.7	-2.3	11.6	11.3	7.0	7.0	9.1
UK Long-dated Gilts	4.0	1.5	2.2	6.1	8.0	8.5	7.2
UK Long-dated Corp. Bonds	1.4	-1.4	1.9	5.2	7.4	8.5	7.2
UK Over 5 Yrs Index-Linked Gilts	2.7	0.1	0.7	7.8	7.7	8.4	7.8
High Yield (Global)	-2.1	-3.8	-4.9	8.4	6.7	11.9	7.6
Overseas Bonds	-0.4	-1.6	-4.4	5.3	2.8	5.9	5.6
Property *	0.7	2.8	11.3	9.0	11.7	6.0	8.6
Cash	0.1	0.1	0.4	0.5	0.5	1.0	3.1
Commodities £-converted	0.4	-1.5	1.5	-2.3	-10.5	-7.7	0.5
Hedge Funds original \$ basis *	-1.7	1.7	7.0	3.8	4.5	3.4	6.4
Illustrative £-converted version *	1.5	-0.1	-3.4	7.9	6.6	7.3	7.4
Euro relative to Sterling	-1.0	-1.2	2.5	6.6	0.7	1.0	-
US \$ relative to Sterling	-1.8	-3.6	-10.9	1.9	1.6	3.5	0.9
Japanese Yen relative to Sterling	-1.5	2.1	-6.6	6.1	-0.9	2.9	2.0
Sterling trade weighted	1.5	2.0	2.9	-3.7	-0.1	-1.5	-1.3
Price Inflation (RPI) *	0.8	0.8	3.6	2.7	2.4	2.8	2.8
Price Inflation (CPI) *	0.5	0.3	2.7	1.8	1.4	2.4	2.0
Price Inflation (RPIX) *	0.8	0.8	3.6	2.8	2.4	3.2	2.9
Earnings Inflation **	-0.5	2.8	2.8	2.4	2.0	1.4	3.1
All Share Capital Growth	-2.2	-7.8	-2.4	2.1	2.9	2.9	1.7
Dividend Growth	-0.4	-1.1	8.3	7.1	5.8	3.1	4.2
Earnings Growth	11.1	52.3	115.0	9.9	6.4	1.7	4.4

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

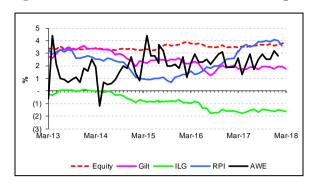
- UK Equities (incl. dividends and earnings) FT-A All Share.
- Overseas Equities (incl. regions) blend of FT All-World / World subindices
- Emerging Markets from MSCI US \$ based total return index (overall Index to 31 Oct 2001, Free Index from 1 Nov 2001 to take account of foreign investment restrictions), 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.

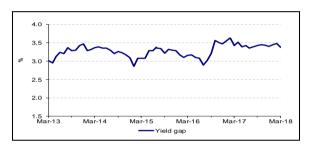
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Yields and Yield Gaps

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.

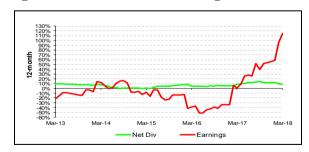


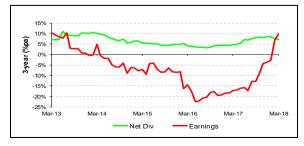
The gap gives a current expectation around 3.4% for longer-term inflation + the risk premium for gilts, relative to index-linked gilts.

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

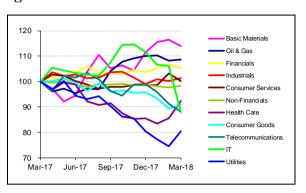




Note: Earnings data from mid 2015 onwards is under review by FTSE Russell as one-off events may be affecting the prospective P/E ratios

UK Equity Sector Returns

Figure 4a: Sectors relative to All Share



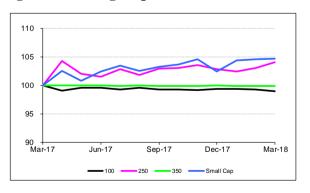
Note: Sector labels for relative lines are in end-value order

There was a fall this month in the rolling 12-month sector dispersion (from 39% to 34%).

(% absolute return)	1 mth	3 mth	12 mth
Oil & Gas	-1.3	-7.9	10.0
Basic Materials	-3.9	-4.8	15.4
Industrials	-0.7	-4.6	2.7
Consumer Goods	-0.4	-11.8	-8.1
Health Care	6.1	0.6	-6.5
Consumer Services	-4.9	-5.5	1.3
Telecommunications	-5.2	-17.1	-10.8
Utilities	6.0	-6.8	-18.6
Non-Financials	-1.3	-7.4	-0.5
Financials	-3.3	-5.6	6.4
IT	-18.8	-26.7	-11.1
All Share	-1.8	-6.9	1.2

UK Equity Size Returns

Figure 4b: Size groups relative to All Share



Mid Cap rose in relative terms this month, but Small Cap was more or less in line in relative terms.

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

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Bond market information

Figure 5: £ Non-Gilt Credit Margins

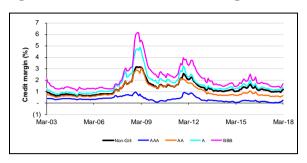


Table 2a: Over 15 Yr Corporate Yields & Margins

Month End	iBoxx Corp AA Y'ld (%)	FT 20 yr Gilt (%)	Margin (%)
Oct '17	2.62	1.93	0.69
Nov '17	2.64	1.89	0.75
Dec '17	2.42	1.77	0.65
Jan '18	2.56	1.95	0.61
Feb '18	2.66	1.94	0.72
Mar '18	2.56	1.74	0.82

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

Category	Mkt Val @ Mar 18 & 15, 12			Weight (%)
Gilts (41)	1,368	1,198	1,021	70.6
Non Gilts (1,056)	569	544	478	29.4
AAA (134)	110	98	122	5.7
AA (152)	77	92	60	4.0
A (338)	166	182	170	8.6
BBB (432)	215	172	126	11.1

Category	Mkt Val @		W't	Dur'n
	Mar 18 & 15		(%)	(yrs)
Gilts (41)	1,368	1,198	70.6	11.7
< 5 Yrs (12)	395	292	20.4	2.6
5–15 Yrs (11)	362	394	18.7	7.9
> 15 Yrs (18)	611	512	31.6	19.9
Non Gilts (1,056)	569	544	29.4	8.2
< 5 Yrs (374)	184	148	9.5	2.9
5–15 Yrs (447)	235	234	12.2	7.6
> 15 Yrs (235)	149	162	7.7	15.5

£ Gilt Market "main" Issuance

- o £2.82bn 3/4% 2023 (2.37x, 1.12%, 2%, Jan 18)
- o £2.86bn 1⁵/₈% 2028 (2.62x, 1.58%, 15%, new)
- o £2.25bn 1½% 2047 (2.10x, 1.94%, 0%, Dec 17)

amount of the issue. PAOF does not apply for syndication cases.

○ £0.68bn ¹/₈% IL 2056 (2.04x, ry -1.58%, n/a, Jul 17) 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

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

Category	Mkt Val (€bn)	Weight (%)
Sovereigns (363)	6,198	60.1
Non Sovereigns	4,110	39.9
AAA (830)	1,171	11.4
AA (637)	1,003	9.7
A (918)	877	8.5
BBB (1,232)	1,060	10.3

Category	Mkt Val (€bn)	Weight (%)
1 – 3 Yrs (915)	2,224	21.6
3 – 5 Yrs (1,016)	2,171	21.1
5 – 7 Yrs (850)	1,718	16.7
7 – 10 Yrs (753)	1,905	18.5
10+ Yrs (446)	2,291	22.2

Table 2f: Breakdown of £ Index-Linked Market

Category	Mkt Val (£bn @		W't	Dur'n
(Number of issues)	Mar	18 & 15)	(%)	(yrs)
Gilts (28)	665	480	100.0	23.0
< 5 Yrs (3)	59	52	8.9	3.0
5 – 15 Yrs (7)	151	130	22.7	9.3
> 15 Yrs (18)	455	299	68.5	30.1

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

Month	US	Euro	Sterling
End	(%)	(%)	(%)
Oct '17	5.22	2.73	5.15
Nov '17	5.39	2.88	5.37
Dec '17	5.45	2.95	5.40
Jan '18	5.48	2.95	5.39
Feb '18	5.75	3.16	5.72
Mar '18	5.99	3.28	5.90

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

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