JAGGER & A SSOCIATES

Investment Update

September 2018

Investment Headlines & Comment

- A weak month for many areas of the bond markets, and a weak quarter for gilts in particular.
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 - Many equity markets saw marked intra-month volatility, but with low overall returns.
- A new 2049 gilt, but no postauction take-up – do market makers expect yield rises?

This month we consider further aspects of the UK Gilt market. In our <u>August</u> 2017 issue, we considered how the maturity profile had developed over time.

Since then, the Debt Management Office (DMO) have published their latest <u>Annual Review</u>, which shows a slight further increase in the maturity profile. However, in this item, we consider the ownership profile, and some related issues.

Figure 1a shows the evolution of the ownership profile since 1987, including the Bank of England's "Quantitative Easing" (QE) component. Figure 1b then reworks this to show the profile excluding QE. (It is unfortunate that the "insurance company and pension fund" element is reported as a combined entity, rather than split into two.)

Figure 1a: Gilt ownership

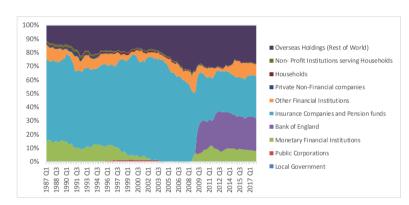
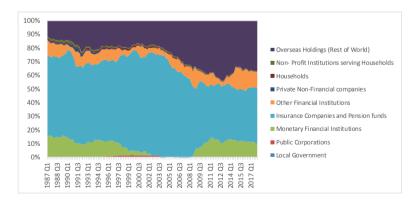


Figure 1b: Gilt ownership ex QE



Source: DMO

The dataset is long enough to cover the effect of the emergence of the sterling-denominated corporate bond market in the early 1990s. The fall in the "insurance company and pension fund" element during the 2000-10 decade (prior to QE) coincides with the increased significance of reporting pension funds in corporate accounts (initially under FRS 17) on a corporate bond-based measure.

It is striking just how much the overseas ownership has increased initially during the 2000-10 decade (prior to QE) and then subsequently because of the QE effect on insurance companies moving away from gilts into other assets (such as corporate bonds). It raises the question of whether the ownership profile will revert back to its pre-QE mix as QE gets unwound, or whether the "new" ex-QE profile will prevail.

Further, there is the question of why the rise of Liability Driven Investment (LDI) has not led to a rise in the "insurance company and pension fund" element, but the answer to that one is probably the extent to which much of LDI is swapsbased rather than using physical assets.

We commented in the August 2017 edition on the the declining use of the Post Auction Option Facility (PAOF) as being an indication of Gilt-Edged Market Makers (GEMMs) and investors finding gilts to be rather expensive. (Remember GEMMs have obligations to make markets, so the demand multiples quoted for auctions are more a reflection of that than of the merits of the investment.) In the 2018 Annual Review, a further decline is reported, with just over half of the auctions saw the PAOF used, and the take-up lower for long-dated issues (but that may be because more use is made of syndication for this part of the market). Finally, it seems bizarre that on p2 of the 2018 Annual Review, the DMO should actually trumpet the fact that there have now been ten years in a row of issuing more than £100bn of gilts ... surely it is more of an indirect reminder of the UK still spending beyond its means?

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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 30 September 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	0.7	-0.8	5.9	11.5	7.5	9.1	6.3
Overseas Equities	0.1	6.1	13.9	20.4	14.6	12.6	8.6
US Equities	0.2	8.8	21.1	23.2	18.8	15.5	7.3
Europe ex UK Equities	-0.2	3.2	2.4	15.2	9.6	8.7	8.9
Japan Equities	2.8	5.0	13.9	18.6	12.4	9.8	6.9
Pacific ex Japan Equities	-1.7	0.2	5.2	19.0	10.5	11.9	11.6
Emerging Markets	-0.8	0.3	2.4	18.5	8.6	9.1	11.9
UK Long-dated Gilts	-2.8	-3.3	1.3	5.3	8.2	8.1	6.3
UK Long-dated Corp. Bonds	-1.9	-0.9	-0.7	6.7	7.2	8.5	6.7
UK Over 5 Yrs Index-Linked Gilts	-1.2	-1.4	1.4	7.2	8.7	8.1	7.2
High Yield (Global)	0.5	3.3	4.2	13.4	9.4	12.7	8.3
Overseas Bonds	-1.4	-0.4	1.2	6.9	4.9	5.7	5.3
Property *	0.5	1.9	10.4	8.0	11.7	7.1	8.5
Cash	0.0	0.1	0.6	0.5	0.5	0.8	2.9
Commodities £-converted	3.6	2.6	26.5	8.4	-6.0	-6.4	2.3
Hedge Funds original \$ basis *	0.4	0.5	5.0	5.0	4.5	3.9	6.9
Illustrative £-converted version *	1.3	2.9	4.1	11.0	8.2	7.5	8.3
Euro relative to Sterling	-0.5	0.7	1.1	6.5	1.3	1.2	-
US \$ relative to Sterling	-0.3	1.2	2.9	5.1	4.4	3.2	1.4
Japanese Yen relative to Sterling	-2.7	-1.3	2.0	7.0	1.4	2.5	2.2
Sterling trade weighted	0.4	-0.1	-0.1	-4.9	-1.4	-1.5	-1.2
Price Inflation (RPI) *	0.9	1.2	3.5	3.0	2.5	2.7	2.8
Price Inflation (CPI) *	0.7	0.7	2.6	2.0	1.5	2.2	2.0
Price Inflation (RPIX) *	0.9	1.2	3.4	3.1	2.6	3.1	2.9
Earnings Inflation **	-0.5	-0.2	3.1	2.5	2.3	1.9	3.0
All Share Capital Growth	0.5	-1.8	1.9	7.4	3.7	5.2	2.9
Dividend Growth	1.1	2.5	5.3	8.2	6.0	3.2	4.4
Earnings Growth	-0.1	3.2	92.4	17.9	8.0	3.2	4.8

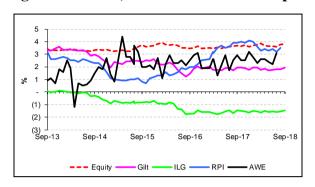
Note: All market returns are total returns for pension funds with income reinvested monthly. Indices used are as follows:

- $\bullet \ \ UK\ Equities\ (incl.\ dividends\ and\ earnings) FT\text{-}A\ All\ Share.$
- 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

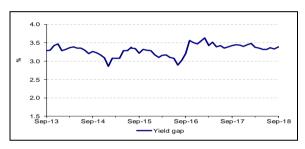
- $\bullet \quad \textit{Commodities} \textit{GSCI Total Return, converted to UK} \ \pounds \ \textit{by J\&A}$
- Hedge Funds Composite HFRI US \$ based total return index plus converted to UK £ by J&A. NB A smooth "cash+x%" return will only be shown in the base 'hedged' currency, here the US \$.
- Cash 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.

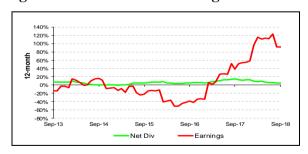


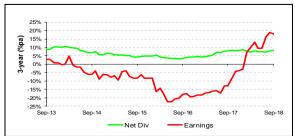
The gap gives a current expectation around 3.4% for longer-term inflation *including the risk premium for gilts, relative to index-linked gilts.*

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

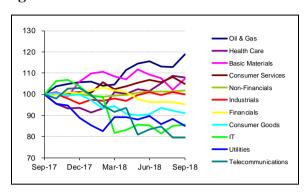




Note: Earnings data from mid 2015 onwards is under review by FTSE Russell as one-off events may be affecting the prospective P/E ratios

UK Equity Sector Returns

Figure 4a: Sectors relative to All Share



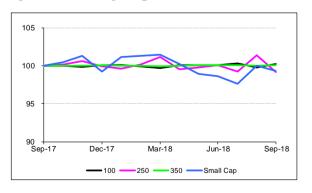
Note: Sector labels for relative lines are in end-value order

There was a fall this month in the rolling 12-month sector dispersion (from 45% to 39%).

(% absolute return)	1 mth	3 mth	12 mth
Oil & Gas	6.2	2.1	25.9
Basic Materials	5.9	-2.5	13.7
Industrials	-0.6	-1.9	5.6
Consumer Goods	-0.7	-0.4	-3.7
Health Care	0.0	5.5	14.3
Consumer Services	-2.2	-2.4	11.0
Telecommunications	0.7	-5.4	-15.8
Utilities	-3.0	-6.0	-9.9
Non-Financials	1.1	-0.4	7.7
Financials	-0.3	-1.9	0.9
IT	1.4	-0.5	-9.4
All Share	0.7	-0.8	5.9

UK Equity Size Returns

Figure 4b: Size groups relative to All Share



Mid Cap and Small Cap both fell in relative terms this month.

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

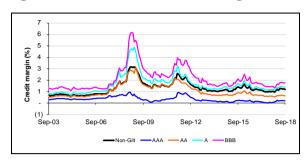


Table 2a: Over 15 Yr Corporate Yields & Margins

Month End	iBoxx Corp AA Y'ld (%)	FT 20 yr Gilt (%)	Margin (%)
Apr '18	2.65	1.85	0.80
May '18	2.64	1.72	0.92
Jun '18	2.70	1.76	0.94
Jul '18	2.70	1.79	0.91
Aug '18	2.66	1.79	0.87
Sep '18	2.79	1.93	0.86

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

Category	Mkt Val @ Sep 18 & 15, 12			Weight (%)
Gilts (42)	1,298	1,241	1,097	69.6
Non Gilts (1,079)	566	539	525	30.4
AAA (143)	115	101	140	6.2
AA (164)	81	97	66	4.4
A (342)	161	159	171	8.7
BBB (430)	209	181	147	11.2

Category	Mkt Val @		W't	Dur'n
	Sep 18 & 15		(%)	(yrs)
Gilts (42)	1,298	1,241	69.6	11.8
< 5 Yrs (11)	345	359	18.5	2.6
5–15 Yrs (12)	356	348	19.1	7.7
> 15 Yrs (19)	596	534	32.0	19.5
Non Gilts (1,079)	566	539	30.4	7.8
< 5 Yrs (379)	187	163	10.0	2.7
5–15 Yrs (465)	237	230	12.7	7.4
> 15 Yrs (235)	141	146	7.6	15.2

£ Gilt Market "main" Issuance

- o £3.00bn, 1% 2024 (1.92x,1.11%, 0%, Jul '18)
- o £2.75bn, 1⁵/₈% 2028 (1.92x, 1.60%, 0%, Aug '18)
- o £2.50bn, 13/4% 2049 (1.76x, 1.83%, 0%, new)
- £0.87bn ½% IL 2048 (2.06x, ry -1.43%, 9%, Apr 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.

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

Category	Mkt Val (€bn)	Weight (%)
Sovereigns (360)	6,131	59.3
Non Sovereigns	4,201	40.7
AAA (869)	1,188	11.5
AA (689)	1,059	10.2
A (975)	907	8.8
BBB (1,263)	1,047	10.1

Category	Mkt Val (€bn)	Weight (%)
1 – 3 Yrs (965)	2,313	22.4
3 – 5 Yrs (1,094)	2,182	21.1
5 – 7 Yrs (877)	1,713	16.6
7 – 10 Yrs (784)	1,871	18.1
10+ Yrs (436)	2,253	21.8

Table 2f: Breakdown of £ Index-Linked Market

Category	Mkt Val (£bn @		W't	Dur'n
(Number of issues)	Sep 18 & 15)		(%)	(yrs)
Gilts (30)	660	484	100.0	22.1
< 5 Yrs (3)	59	50	8.9	2.5
5 – 15 Yrs (8)	155	124	23.4	8.9
> 15 Yrs (19)	447	309	67.7	29.3

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

Month	US	Euro	Sterling
End	(%)	(%)	(%)
Apr '18	6.00	3.24	5.88
May '18	6.10	3.55	6.10
Jun '18	6.17	3.69	5.69
Jul '18	6.06	3.51	5.65
Aug '18	6.02	3.61	5.68
Sep '18	6.02	3.58	5.78

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



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