JAGGER & ASSOCIATES

Investment Update
January 2017

Investment Headlines & Comment

- **Nominal gilt yields** rose this month but **real yields** were largely unchanged.
- **Implied future inflation** is thus at its highest since early 2010, but are ILG distortions the true cause?
- A record £23.9bn of demand at the DMO this month for £4.5bn of a new **40-year gilt**, yielding 1.87%.

Feature Section

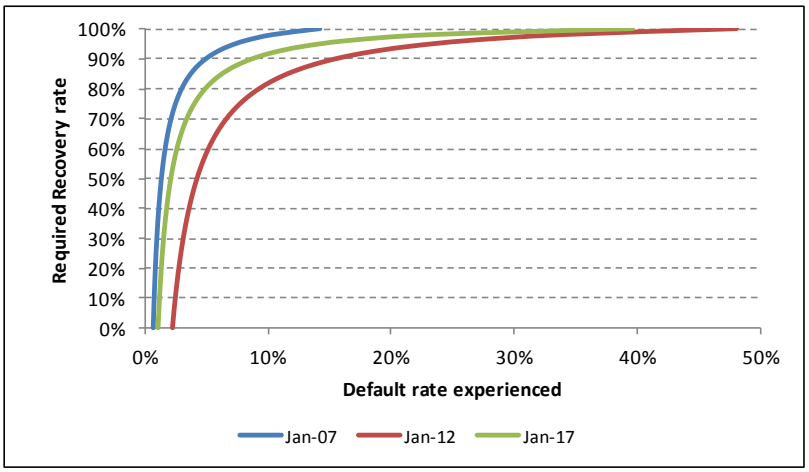
This month we consider how the significance of recovery rates may have changed over the last decade due to the general fall in corporate bond yields. The recovery rate is the proportion of the capital that an investor manages to get back after a bond goes into default.

We use the approach as per our December 2008 and February 2011 editions, which used one simple 1-year equation:

Safe version	*What you get if the bond survives*	+	*What you get if it does not*
(1 + Gilt Yield) =	(1 + Corporate Yield) × (1 – Default Rate) +		(Recovery Rate) × (Default Rate)

Given we know the gilt and corporate bond yields at any given date, this gives us a trade-off between default rates and required recovery rates. Figure 1a shows the resulting curves for investment grade (IG) markets at the end of January in 2007, 2012 and 2017, where the corporate bond yields involved are 5.4%, 4.8% and 2.8% respectively (based on iBoxx all-dated yields).

Figure 1a: IG - Trade-off for default rates and recovery rates



The current credit margin is around 1.1%. As per our April 2016 edition, the worst-ever year for BBB-rated bonds only involved a 1% default rate (with higher-rated bonds having far lower rates), so the outputs from Figure 1a show that no positive recovery rate is currently required in order to remain ahead of gilts in that scenario, such is the credit margin on offer. (It should be noted though that only a small contraction in the yields or the credit margin would be needed to require a positive recovery rate – things are finely balanced!)

Figure 1b: HY - Trade-off for default rates and recovery rates

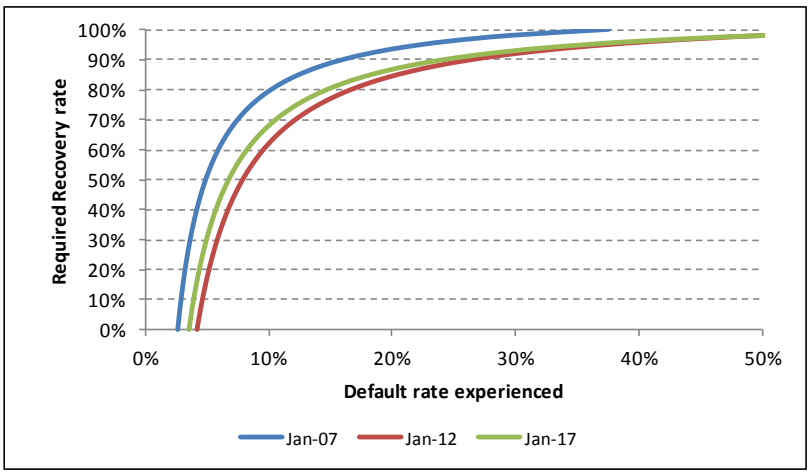


Figure 1b repeats the analysis (on the same horizontal axis scale) for High Yield (HY) bonds, where the High Yield bond yields involved are 7.5%, 7.0% and 5.5% respectively (based on MLX's US BB-B index yields).

Again, as per our April 2016 edition, the worst-ever year for B-rated bonds only involved a 4.2% default rate (with higher-rated BB-rated bonds having a far lower rate), so the outputs from Figure 1b show that only a 16% recovery rate is required in order to remain ahead of gilts in that situation, such is the credit margin on offer.

So, as long as a fund manager goes for BB-B rated bonds with some reasonable tangible assets backing them, then this still looks a pretty attractively priced asset class. Where it gets really interesting is seeing the range of client responses to the asset class – some are happy to have 25% of a portfolio in High Yield (and one pension fund case has 50%, given its Employer covenant), but some still will not hold the asset class at all. "Horses for courses", I suppose.

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 cannot 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 January 2017

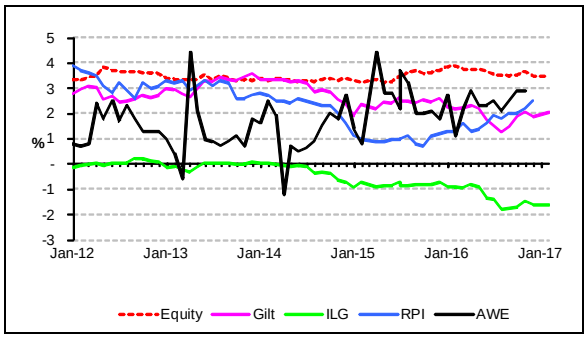
Asset Class	1 month (%)	3 months (%)	12 months (%)	3 years (% p.a.)	5 years (% p.a.)	10 years (% p.a.)	20 years (% p.a.)
UK Equities	-0.3	3.0	20.1	7.0	9.4	5.6	6.5
Overseas Equities	1.0	2.8	34.8	16.8	14.9	9.5	7.9
US Equities	0.3	**4.7**	35.9	**20.9**	**19.3**	11.9	7.7
Europe ex UK Equities	0.6	2.0	25.7	9.4	12.0	5.7	**8.9**
Japan Equities	1.8	-0.9	31.0	15.9	13.6	5.7	3.8
Pacific ex Japan Equities	**3.6**	-0.4	39.2	14.0	9.2	9.8	6.6
Emerging Markets	**3.6**	-2.1	**41.9**	11.3	5.2	7.5	7.2
UK Long-dated Gilts	**-3.1**	-2.6	8.1	12.0	6.8	8.2	8.2
UK Long-dated Corp. Bonds	-2.2	-1.4	13.8	9.9	8.4	7.3	-
UK Over 5 Yrs Index-Linked Gilts	0.1	-2.3	20.9	14.5	9.0	9.6	8.6
High Yield (Global)	0.0	-0.5	34.0	13.5	11.7	**12.1**	-
Overseas Bonds	-0.8	**-7.4**	14.6	9.0	3.7	8.4	5.7
Property *	1.2	2.6	2.6	11.8	9.7	3.9	**8.9**
Cash	0.0	0.1	**0.5**	**0.5**	**0.6**	**1.7**	**3.5**
Commodities £-converted	-3.2	2.7	30.5	-13.1	-9.8	-3.8	-0.7
Hedge Funds original $ basis *	1.0	1.2	5.5	2.4	4.5	3.4	6.9
Illustrative £-converted version *	2.1	6.4	25.8	12.9	9.4	8.2	8.6
Euro relative to Sterling	0.6	-4.3	12.6	1.5	0.7	2.6	-
US $ relative to Sterling	-1.8	-3.0	12.7	9.3	4.6	4.6	1.2
Japanese Yen relative to Sterling	1.8	-9.4	21.3	5.8	-3.2	5.3	1.6
Sterling trade weighted	0.5	4.4	-12.2	-3.4	-1.0	-3.0	-0.8
Price Inflation (RPI) *	0.6	0.8	2.5	1.8	2.2	2.8	2.8
Price Inflation (CPI) *	0.5	0.8	1.6	0.8	1.4	2.3	1.9
Price Inflation (RPIX) *	0.6	0.9	2.7	1.9	2.3	3.1	2.8
Earnings Inflation **	-0.3	0.0	2.9	2.3	1.7	2.1	3.1
All Share Capital Growth	-0.4	2.4	15.7	3.3	5.6	1.9	3.1
Net Dividend Growth	0.2	1.5	5.4	4.4	6.4	4.0	-
Earnings Growth	0.2	7.0	-33.9	-18.3	-13.8	-5.5	0.6

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

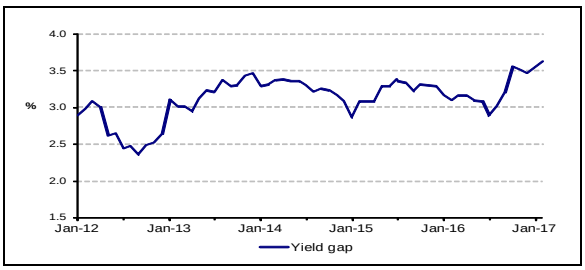
- *UK Equities (incl. dividends and earnings) – FT-A All Share.*
- *Overseas Equities (incl. regions) – blend of FT All-World / World subindices*
- *Emerging Markets from MSCI US $ based total return index (overall Index to 31 Oct 2001, Free Index from 1 Nov 2001 to take account of foreign investment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

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.

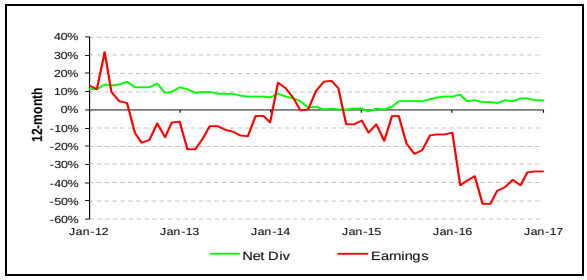


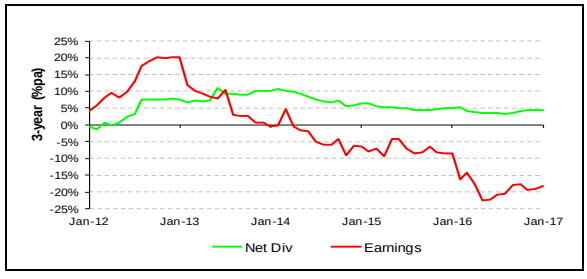
The gap gives a current expectation around 3.6% for longer-term inflation + risk premium for gilts, relative to index-linked gilts.

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

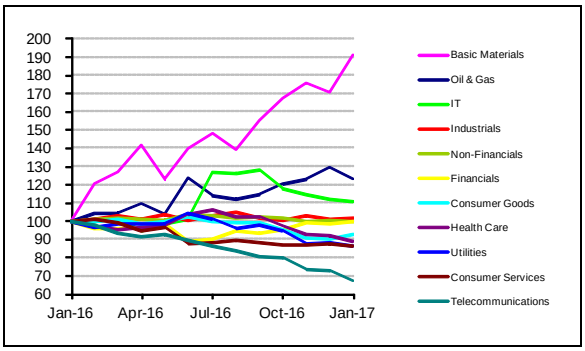




Note: Earnings data from mid 2015 onwards is under review by FTSE Russell as one-off events may be affecting the prospective P/E ratios

UK Equity Sector Returns

Figure 4a: Sectors relative to All Share



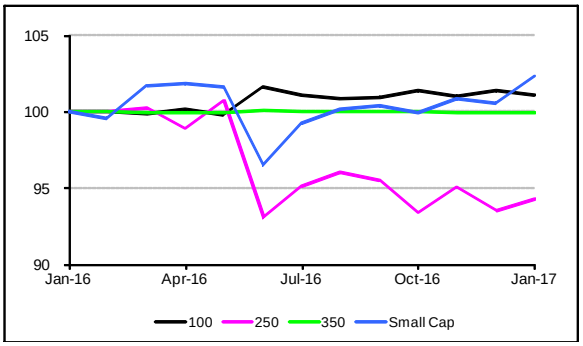
Note: Sector labels for relative lines are in end-value order

There was a marked rise this month in the rolling 12-month sector dispersion (from 86% to 124%).

(% absolute return)	1 mth	3 mth	12 mth
Oil & Gas	-5.3	4.9	47.7
Basic Materials	11.8	17.5	129.4
Industrials	0.2	4.5	22.0
Consumer Goods	2.5	0.3	11.7
Health Care	-3.9	-5.7	6.6
Consumer Services	-2.0	1.9	3.5
Telecommunications	-8.3	-14.0	-19.9
Utilities	-2.2	-5.8	3.8
Non-Financials	-0.7	1.5	20.0
Financials	0.8	7.5	19.9
IT	-1.7	-3.6	32.8
All Share	-0.3	3.0	20.1

UK Equity Size Returns

Figure 4b: Size groups relative to All Share



Mid and Small Cap rose in relative terms this month.

FRS17 volatility indicator

Now discontinued, but available on request.

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

Bond market information

Figure 5: £ Non-Gilt Credit Margins

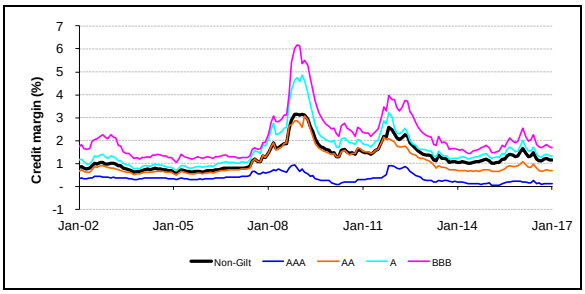


Table 2a: Over 15 Yr Corporate Yields & Margins

Month End	iBoxx Corp AA Y'ld (%)	FT 20 yr Gilt (%)	Margin (%)
Aug '16	1.95	1.24	0.71
Sep '16	2.21	1.46	0.75
Oct '16	2.63	1.85	0.78
Nov '16	2.82	2.03	0.79
Dec '16	2.60	1.86	0.74
Jan '17	**2.77**	**2.03**	**0.74**

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

Category	Mkt Val @ Jan 17 & 14, 11			Weight (%)
Gilts (40)	1,322	1,091	801	71.0
Non Gilts (991)	539	518	452	29.0
AAA (119)	103	99	125	5.5
AA (165)	85	87	70	4.6
A (339)	168	165	162	9.0
BBB (368)	183	167	96	9.8

Category	Mkt Val @ Jan 17 & 14		W't (%)	Dur'n (yrs)
Gilts (40)	1,322	1,091	71.0	11.1
< 5 Yrs (11)	376	300	20.2	2.8
5–15 Yrs (11)	360	399	19.3	7.4
> 15 Yrs (18)	586	392	31.5	18.7
Non Gilts (991)	539	518	29.0	8.0
< 5 Yrs (318)	153	146	8.2	2.7
5–15 Yrs (443)	234	223	12.6	7.3
> 15 Yrs (230)	152	148	8.2	14.5

£ Gilt Market "main" Issuance

- £2.88bn ½% 2022 (2.37x, 0.79%, Dec 16)
- £2.25bn 2% 2025 (2.52x, 1.16%, Jan 16)
- £2.44bn 1½% 2026 (2.27x, 1.45%, Dec 16)
- £2.33bn 1¾% 2037 (1.69x, 1.97%, Nov 16)
- £4.50bn 1¾% 2057 (**5.22x**, 1.87%, new)
- £0.84bn $^{1}/_{8}$% IL 2046 (1.82x, ry -1.53%, Sep 16)

Note: Issuance amounts are nominals.

Tables 2d, 2e: € Market Size and Maturity (Jan 17)

Category	Mkt Val (€bn)	Weight (%)
Sovereigns (329)	5,757	60.2
Non Sovereigns	3,807	39.8
AAA (723)	1,089	11.4
AA (615)	984	10.3
A (827)	807	8.4
BBB (1,061)	926	9.7

Category	Mkt Val (€bn)	Weight (%)
1 – 3 Yrs (775)	2,085	21.8
3 – 5 Yrs (911)	2,085	21.8
5 – 7 Yrs (777)	1,613	16.9
7 – 10 Yrs (707)	1,798	18.8
10+ Yrs (385)	1,983	20.7

Table 2f: Breakdown of £ Index-Linked Market

Category (Number of issues)	Mkt Val (£bn @ Jan 17 & 14)		W't (%)	Dur'n (yrs)
Gilts (27)	618	386	93.9	23.6
< 5 Yrs (2)	34	44	5.2	-
5 – 15 Yrs (7)	145	105	22.1	-
> 15 Yrs (18)	438	237	66.6	30.1
Non Gilts (36)	40	32	6.1	17.1

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

Month End	US (%)	Euro (%)	Sterling (%)
Aug '16	5.68	3.47	5.87
Sep '16	5.63	3.57	5.97
Oct '16	5.70	3.43	6.09
Nov '16	5.84	3.77	6.04
Dec '16	5.61	3.45	5.80
Jan '17	**5.49**	**3.39**	**5.75**

Sources: Barclays Capital, DMO, iBoxx, J&A, MLX

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