



Investment Headlines & Comment

- Sterling weakened against the US \$ and Japanese Yen, but was unchanged against the €.
- A poor month for Italian and Spanish equities (in local terms), and for Italian bonds as well.
- There was record demand for the new gilt maturing in 2017: £37.8bn of offers, £6bn issued.

Feature Section

This month we update our past features on corporate debt default rates, using the Standard & Poors [annual survey](#), which now covers data to the end of 2017.

With government bond yields still at extremely low levels, earning *and keeping* the credit margin is crucial.

Figure 1a: Average Cumulative Default Rates (%)
(Extracts from “Table 24” in S&P)

Time	1 year	5-year	10-year
Investment grade	0.10	0.92	2.03
AAA	0.00	0.35	0.71
AA	0.02	0.32	0.75
A	0.06	0.51	1.34
BBB	0.17	1.70	3.58
High Yield	3.75	14.95	21.21
BB	0.68	7.11	12.77
B	3.59	17.88	24.95
CCC/C	26.82	46.22	50.71
All ratings	1.50	6.18	9.05

Source: Standard & Poor’s (also for the Figures below)

Figure 1a shows historical default rates averages across global corporate bonds in 1-, 5- and 10-year versions. The dataset covers 1981-2017 (and the 5- and 10-year figures use rolling sets of overlapping periods, not successive distinct ones), but it does not show comparable recovery rate statistics. However, as per our Figure 5 (on page 4) for Sterling investment grade bonds, actual default rates have been below those priced into yields, even if with no recovery. For example, over the last 20 calendar years, the iBoxx All-Dated Non-Gilts Index returned 6.4% p.a. vs 5.9% p.a. for the FT-A All-Dated Gilt Index. This gap may look smaller than the c.1% p.a. you might expect, but the Gilt index has longer maturity, so its greater gain from the fall in yields offsets about half of the credit margin from the Corporate Bond index.

Figure 1b shows 2017’s moves in isolation (row = start rating, column = end rating). For investment grade it was a pretty good year, with very few bonds falling below BBB – indeed the upgrade rate from BB and B was higher. Most bonds retain the same credit rating at the end of the year as at the start, hence a dominant diagonal for the figures in bold, but with another block of downgrades for the few remaining AAA bonds. Eventually there is a sharp decline on the CCC row, reflecting a greater instability for bonds that have got that close to the edge. There were 5 defaulted entities in 2017 that S&P had initially rated investment grade, and the time between first rating and date of default averaged 28.4 years. Figure 1c gives an alternative way of looking at the 1-year data from Figure 1a, with the minimum and maximum

Figure 1b: Global Credit Rating Transitions % in 2017 in isolation
(Extracts from “Table 20” in S&P, with D = Default, N.R. = not rated)

	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	64.29	35.71	-	-	-	-	-	-	-
AA	-	92.56	4.17	-	-	-	-	-	3.27
A	-	0.44	93.36	2.36	-	-	-	-	3.84
BBB	-	-	2.33	90.00	2.67	0.11	-	-	4.89
BB	-	-	0.08	3.57	80.56	4.63	-	0.08	11.09
B	-	-	-	-	3.65	75.68	4.14	0.98	15.54
CCC	-	-	-	0.41	-	16.80	38.11	26.23	18.44

Figure 1c: Profile of individual year default percentages
(Extracts from “Table 4” in S&P)

	AAA	AA	A	BBB	BB	B	CCC
Min	-	-	-	-	-	0.25	-
Max	-	0.38	0.39	1.01	4.22	13.84	49.46
Average	-	0.02	0.06	0.17	0.68	3.59	26.82

reasonable case for making a deduction of more than, say, 0.3% p.a. from the yield as an allowance for future defaults. (If you do not yet hold the bonds, or expect to reinvest maturing proceeds, there may be an argument for reducing the yield for the risk that credit margins contract before you buy the bonds, but that remains quite a separate issue.)

1-year default rates by credit rating, which in turn renews the question on what level of deduction it might be prudent to make from investment grade bond yields in actuarial valuations. For example, the average cumulative investment grade 10-year default rate is 2.03%, and the worst is 4.12% (from “Table 31”, for the 10 years to 1991, when the market was much smaller than now). So, there still does not seem to be a



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 May 2018

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	2.8	7.4	6.5	7.5	7.8	7.0	5.5
Overseas Equities	3.7	2.2	9.2	13.6	12.8	10.1	7.4
US Equities	6.0	3.8	11.2	16.0	15.9	13.6	6.0
Europe ex UK Equities	-0.8	-0.5	1.3	9.9	9.2	5.8	7.8
Japan Equities	2.5	1.4	11.9	12.5	12.1	7.7	5.7
Pacific ex Japan Equities	2.5	1.1	11.5	11.9	10.0	9.1	10.8
Emerging Markets	-0.1	-2.4	10.6	11.5	7.7	6.1	9.9
UK Long-dated Gilts	2.8	4.6	1.7	7.5	8.6	8.9	7.1
UK Long-dated Corp. Bonds	0.2	0.8	-1.1	6.0	7.0	8.4	7.0
UK Over 5 Yrs Index-Linked Gilts	2.5	2.3	-0.5	7.8	8.1	8.5	7.6
High Yield (Global)	2.3	2.0	-0.5	10.0	7.3	11.8	7.7
Overseas Bonds	2.6	2.2	-1.4	7.8	3.9	6.6	5.5
Property *	0.6	2.2	11.1	8.7	11.8	6.3	8.6
Cash	0.1	0.2	0.5	0.5	0.5	1.0	3.1
Commodities £-converted	5.0	12.8	21.6	-0.4	-7.2	-8.1	1.4
Hedge Funds original \$ basis *	0.4	-1.9	5.8	3.3	4.2	3.5	6.2
Illustrative £-converted version *	2.3	1.3	-0.6	7.1	6.7	7.3	7.2
Euro relative to Sterling	0.0	-0.9	0.9	6.9	0.5	1.1	-
US \$ relative to Sterling	3.5	3.5	-3.4	4.7	2.6	4.0	1.0
Japanese Yen relative to Sterling	4.3	1.7	-1.3	9.4	1.2	3.7	2.3
Sterling trade weighted	-1.3	-0.2	1.0	-5.1	-0.4	-1.7	-1.2
Price Inflation (RPI) *	0.5	1.3	3.4	2.7	2.3	2.7	2.7
Price Inflation (CPI) *	0.4	1.0	2.4	1.8	1.4	2.3	2.0
Price Inflation (RPIX) *	0.5	1.3	3.4	2.9	2.4	3.1	2.8
Earnings Inflation **	8.9	11.3	2.3	2.4	2.7	2.1	3.4
All Share Capital Growth	2.3	6.0	2.6	3.6	4.0	3.2	2.1
Dividend Growth	0.6	1.8	7.6	7.5	5.8	2.9	4.3
Earnings Growth	2.2	13.6	113.8	9.4	4.7	2.3	4.6

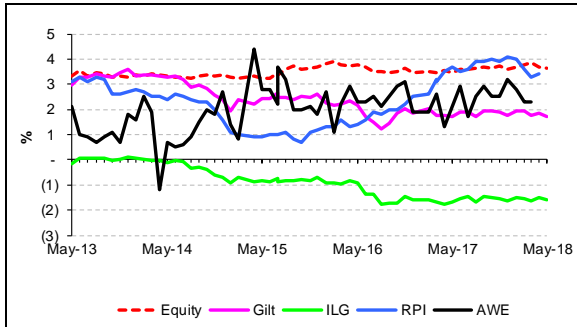
Note: All market returns are total returns for pension funds with income reinvested monthly. Indices used are as follows:

- 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.

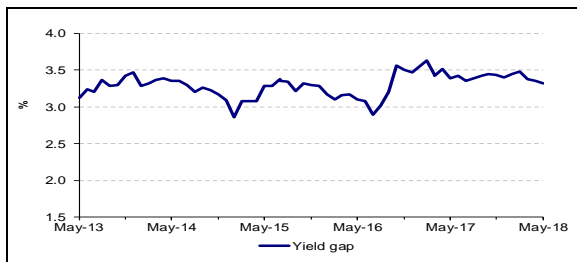


Yields and Yield Gaps

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.

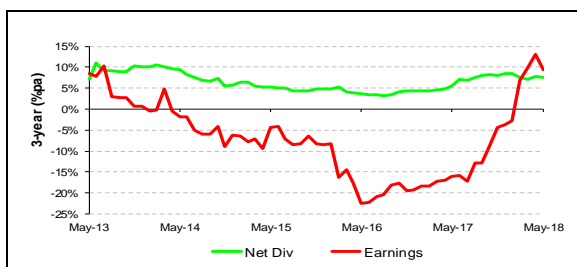
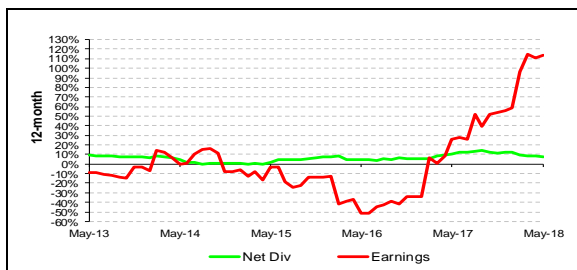


The gap gives a current expectation around 3.3% for longer-term inflation including the risk premium for gilts, relative to index-linked gilts.

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]

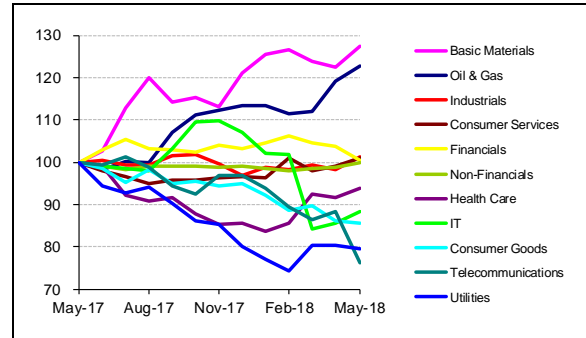
Figure 3: Dividend & Earnings Growth



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



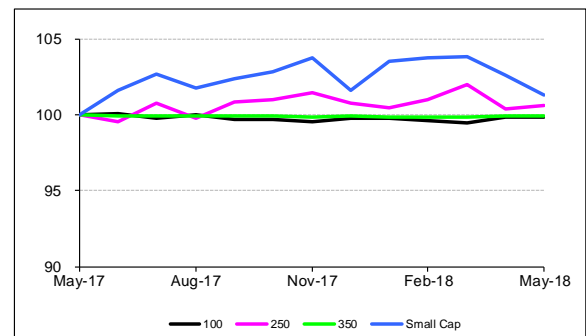
Note: Sector labels for relative lines are in end-value order

There was a rise this month in the rolling 12-month sector dispersion (from 38% to 51%).

(% absolute return)	1 mth	3 mth	12 mth
Oil & Gas	5.7	18.2	30.6
Basic Materials	7.1	8.3	35.8
Industrials	5.8	10.7	7.8
Consumer Goods	2.0	3.9	-8.8
Health Care	5.1	17.7	-0.1
Consumer Services	4.6	7.3	7.5
Telecommunications	-11.3	-8.4	-18.9
Utilities	1.8	14.7	-15.4
Non-Financials	4.0	9.6	6.3
Financials	-0.5	1.7	7.0
IT	5.9	-6.8	-6.0
All Share	2.8	7.4	6.5

UK Equity Size Returns

Figure 4b: Size groups relative to All Share



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

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



Bond market information

Figure 5: £ Non-Gilt Credit Margins

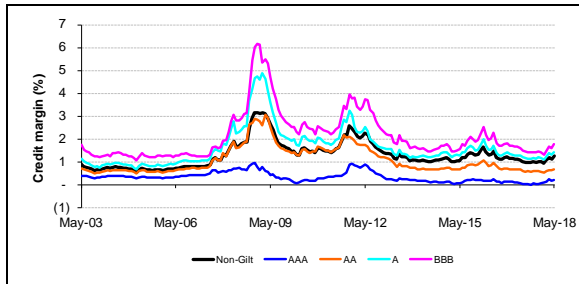


Table 2a: Over 15 Yr Corporate Yields & Margins

Month End	iBoxx Corp AA Y'ld (%)	FT 20 yr Gilt (%)	Margin (%)
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
Apr '18	2.65	1.85	0.80
May '18	2.64	1.72	0.92

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

Category	Mkt Val @ May 18 & 15, 12			Weight (%)
	May 18	May 15	May 12	
Gilts (41)	1,356	1,210	1,052	70.5
Non Gilts (1,061)	567	547	494	29.5
AAA (133)	110	100	132	5.7
AA (151)	76	95	619	4.0
A (339)	163	178	173	8.5
BBB (438)	217	174	128	11.3

Category	Mkt Val @ May 18 & 15		W't (%)	Dur'n (yrs)
Gilts (41)	1,356	1,210	70.5	11.9
< 5 Yrs (11)	360	329	18.7	2.6
5-15 Yrs (12)	377	363	19.6	7.8
> 15 Yrs (18)	619	518	32.2	19.9
Non Gilts (1,061)	567	547	29.5	8.1
< 5 Yrs (372)	184	160	9.5	2.9
5-15 Yrs (456)	237	231	12.3	7.5
> 15 Yrs (233)	146	156	7.6	15.4

£ Gilt Market “main” Issuance

- £3.43bn ¾% 2023 (1.88x, 1.12%, 14%, Apr 18)
- £2.81bn 1⁵/₈% 2028 (2.20x, 1.61%, 2%, Apr 18)
- **£6.00bn** 1⁵/₈% 2071 (**6.30x**, 1.69%, n/a, new)
- £1.15bn 1/8% IL 2036 (2.15x, ry -1.49%, n/a, Feb 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 (May 18)

Category	Mkt Val (€bn)	Weight (%)
Sovereigns (364)	6,094	59.5
Non Sovereigns	4,146	40.5
AAA (850)	1,177	11.5
AA (651)	1,028	10.0
A (960)	912	8.9
BBB (1,229)	1,029	10.0

Category	Mkt Val (€bn)	Weight (%)
1 – 3 Yrs (951)	2,264	22.1
3 – 5 Yrs (1,032)	2,136	20.9
5 – 7 Yrs (857)	1,667	16.3
7 – 10 Yrs (764)	1,908	18.6
10+ Yrs (450)	2,264	22.1

Table 2f: Breakdown of £ Index-Linked Market

Category (Number of issues)	Mkt Val (£bn @ May 18 & 15)		W't (%)	Dur'n (yrs)
Gilts (28)	665	499	100.0	22.7
< 5 Yrs (3)	59	76	8.8	2.9
5 – 15 Yrs (7)	152	106	22.9	9.2
> 15 Yrs (18)	454	317	68.3	29.8

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

Month End	US (%)	Euro (%)	Sterling (%)
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
Apr '18	6.00	3.24	5.88
May '18	6.10	3.55	6.10

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

