JAGGER & ASSOCIATES

Investment Update
December 2002

Investment Headlines & Comment

- As the data table on page 2 shows, **UK Equities** collectively had an appalling year. This was fairly uniform across the market by company size, with Small and Medium Cap being within 5% of the All Share for almost the whole year. However, by sector the spread and month-by-month volatility was much more dramatic – the widest spread being almost 90% between and IT (worst) and Cyclical Consumer Goods or Utilities (best at end of September and December respectively).

- Our latest **FRS17 volatility results** are somewhat shocking. Using the data table from page 2 and the volatility indicator from page 4 shows typical liabilities have outstripped equity assets by 34% or more - and allowance for mortality improvements as flagged in last month's *Update*, means many scheme FRS17 liabilities rising by 50% relative to assets!

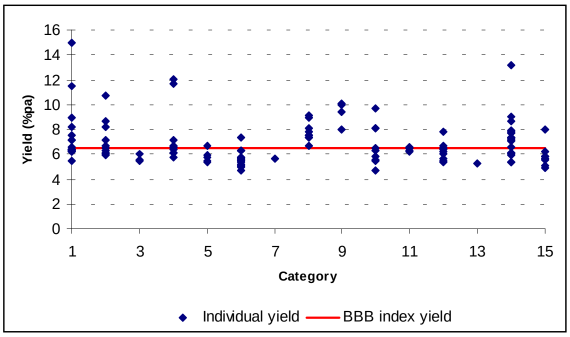
  This will only add to the general negative atmosphere currently engulfing final salary schemes.

- Following on from this, here is J&A's **FRS17 "starter kit"** of assumptions for 31/12/02. The discount rate should be somewhere near 5.3%pa, and expected future inflation should be at about 2.3%pa. Mortality will need to be up-to-date (even if on the old PA90 table, a rating of at least –8 will be needed). The margin on top of inflation for salary growth is company-specific, but need not be positive, although it would not endear the Directors to their employees to report that sort of assumption!

Feature Section

This month, *Update*'s editor claws back the column from his colleagues who have written the recent previous months' columns, and considers the spread of expected future returns (ie redemption yields) available on BBB-rated corporate bonds, both in absolute terms and relative to AAA-rated stocks. We are indebted to Credit Suisse and Aegon for suggesting these two areas. The chart on page 4 of *Update* has been showing a high average redemption yield on BBB bonds for some time now, particularly relative to "risk free" gilt yields, but just how widely spread are the yields on individual bonds about this average? And how sector- or industry-dependent are they?

Figure 1a Scatter Plot of BBB yields



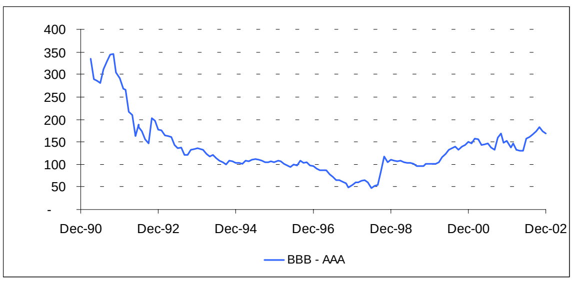
Sources: Bloomberg, Barclays Capital

Figure 1a shows the individual yields on BBB rated stocks, split by sector category, and the overall index yield. We need a 3-D plot to capture the variation by term as well, but since short-dated BBB yields average only 0.3% below that of long-dated, this is secondary to the effect we want to show.

For completeness, the category labels are as follows:

1	Asset Backed	9	Insurance
2	Banking	10	Media
3	Basic Industry	11	Real Estate
4	Capital Goods	12	Services Cyclical
5	Consumer Cyclical	13	Services Non-Cyclical
6	Consumer Non-Cyclical	14	Telecommunications
7	Energy	15	Utility
8	Finance & Investment		

Figure 1b BBB margin over AAA yields
(Basis points)



BBB yields are clearly incredibly widely spread. Interestingly, several BBB yields are lower than for higher-rated A and AA stocks, which initially suggests that one or both of credit rating revision frequency and accuracy are open to question.

As Figure 1b shows, BBB yields on average are currently very high relative to AAA stocks, back at levels last seen 10 years ago (when the BBB market was much less developed than it is now). This may partly reflect investors increasingly using AAA stocks as gilt substitutes, but it will also demonstrate increased investor concerns over future economic prospects and the risk of default.

Specific examples of anomalously low BBB yields might include Pearson, Northumbrian Water, and Safeway – all of whom have yields below 5%. However, these examples are all bonds of fairly short remaining term, so this just acts as a reminder that credit rating should really be term-dependent too.

Asset Class Returns

The following table gives the latest returns for the main asset classes, currency returns, prices and earnings inflation, together with dividend and earnings growth. The cells in bold with light shading show the best and worst performing asset classes from each column.

Table 1: Investment Data to 31 December 2002

Asset Class	1 month (%)	3 months (%)	12 months (%)	3 years (% p.a.)	5 years (% p.a.)	10 years (% p.a.)
UK Equities	-5.3	5.6	-22.7	-14.2	-2.3	6.8
Overseas Equities	-8.2	5.4	-27.3	-15.8	-1.0	5.6
US Equities	**-9.1**	5.9	**-30.0**	-14.8	-0.4	8.4
Europe ex UK Equities	-7.6	**10.7**	-26.7	-16.0	-1.4	8.0
Japan Equities	-5.6	**-7.3**	-18.1	**-23.1**	**-3.2**	**-3.0**
Pacific ex Japan Equities	-7.9	1.9	-16.3	-12.3	-2.0	2.0
Emerging Markets	-6.6	7.2	-15.0	-13.3	-2.9	1.0
UK Long-dated Gilts	**3.2**	-0.2	9.9	5.5	8.7	10.9
UK **Long-dated** Corp. Bonds	2.9	0.0	10.2	8.6	9.4	-
UK Index-Linked Gilts	2.8	1.5	8.2	3.9	7.0	7.7
Overseas Bonds	1.4	2.2	7.9	6.6	6.2	5.8
Property *	0.8	2.5	**10.4**	**9.5**	**11.0**	**11.3**
Cash	0.3	1.0	4.1	5.1	5.7	6.1
Euro relative to Sterling	2.0	3.7	6.6	1.6	-	-
US $ relative to Sterling	-3.4	-2.6	-9.6	0.0	0.4	-0.6
Price Inflation *	0.2	1.0	2.6	2.2	2.2	2.5
Earnings Inflation **	1.0	-0.3	4.2	4.2	4.4	3.8
Net Dividend Growth	-0.1	0.3	1.3	-0.7	0.9	-
Earnings Growth	-2.2	-4.2	-18.2	-4.8	-4.7	-

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

- *UK Equities (including dividends and earnings) – FT-A All Share.*
- *Overseas Equities (including regions) – blend of FT All-World / World subindices, allowing for an assumed rate of 15% withholding tax, Emerging Markets from MSCI US $ based total return index (overall Index to 31 Oct 2001, Free Index from 1 Nov 2001 – this latter index takes account of foreign investment restrictions), converted to UK £ internally by J&A. Similarly, for the FT-based overseas returns, they are approximate conversions of the FTSE US $ denominated data into a format consistent with the previous FTSE-published sterling denominated data.*
- *UK Bonds – FT-A Gilt indices (Gilts Over 15 Years, ILG All Stocks)*
- *UK Corporate Bonds – Barclays Capital Non-Gilt **Over 15 Year** index (all credit ratings combined)*
- *Overseas Bonds – JP Morgan Traded Unhedged World ex UK*
- *Property – IPD Index*
- *Cash – an indicative index based on the three-month London Interbank Sterling mid-rate, calculated internally by J&A*
- *Price and earnings inflation – Retail Prices Index, and the National Average Earnings Index (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.*

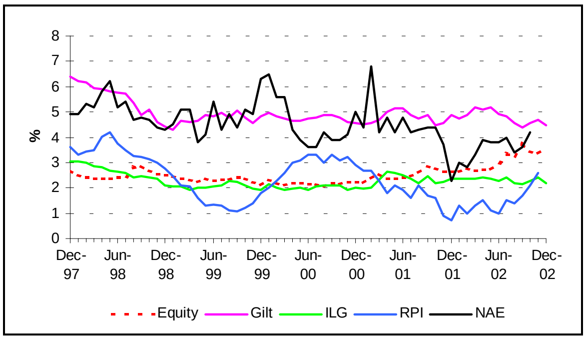
Comment

- The year ended with another turbulent month for Equities, and another solid month for bonds. Property was only just ahead of Corporates as the best class for 2002. The 40% spread between them and US Equities is very marked.
- There is no sign yet of UK Equities earnings improving. However, the gap between prices and earnings over the 5-year time period is substantially reduced.

Yields and Yield Gaps

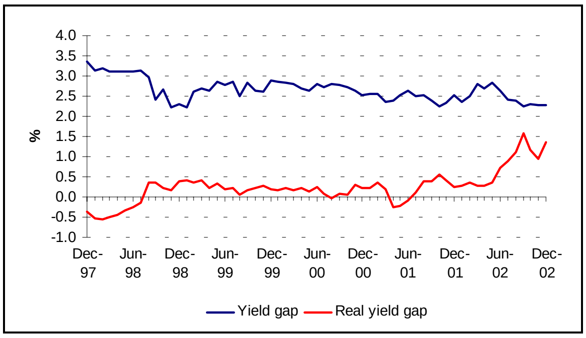
Figure 2 shows the movement in equity and bond yields over the last 5 years, together with rolling 12-month earnings and inflation data. These give a useful summary of market influences. Figure 3 shows the movement in the real yield gap (equity yield minus ILG yield) and the yield gap (a measure of expected average future inflation, derived as long bond yield minus ILG yield).

Figure 2: Yields and Inflation



Sources: Financial Times, Office for National Statistics

Figure 3: Equity & Bond yield gaps



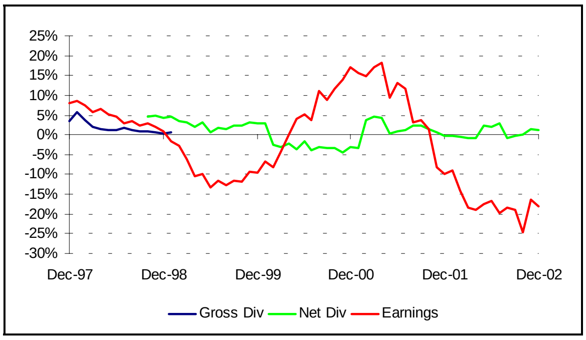
Sources: Financial Times, Jagger & Associates

Both price and wage inflation are showing some signs of rising, but the inflation figure remains close to the government target. The yield gap has stayed below the existing government target of 2.5%pa. It is now slightly below current inflation, so the convergence question noted in previous issues is gradually being addressed.

Growth in Earnings and Dividends

The following chart shows the movement in rolling 12-month dividend and earnings growth for UK Equities over the last 5 years.

Figure 4: Dividend & Earnings Growth



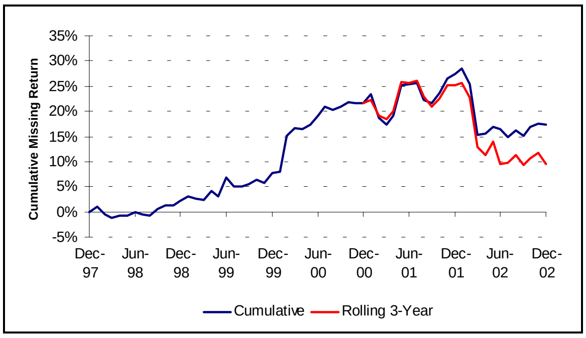
Sources: Financial Times, Jagger & Associates

The 12-month earnings results continue to be poor. The 3-year dividend growth is –0.7% p.a. compared with –0.9% p.a. at the end of November. The 3-year earnings growth is –4.8% p.a. as at the end of December, having been –4.3% p.a. as at the end of November.

MFR / Valuation Inconsistencies

The following chart shows the large 'missing return' element for pension funds from the equity part of their MFR valuations, and its rolling 3 year value.

Figure 5: MFR missing return

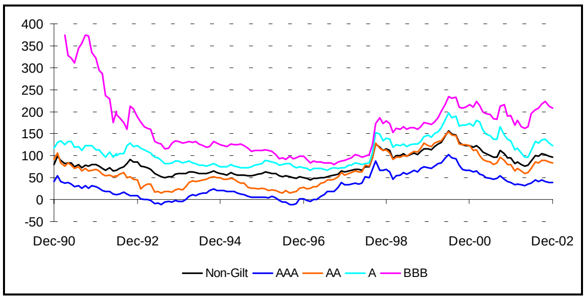


Sources: Financial Times, Jagger & Associates

If a scheme tracks the All Share Index, for its MFR equity-backed liabilities, then even though the assets and liabilities are allegedly matched, the liabilities in fact grow at a different rate to the assets, the so-called "missing return" – still 10% for the latest 3 year period, even after the one-off improvement in early 2002 from regulation changes.

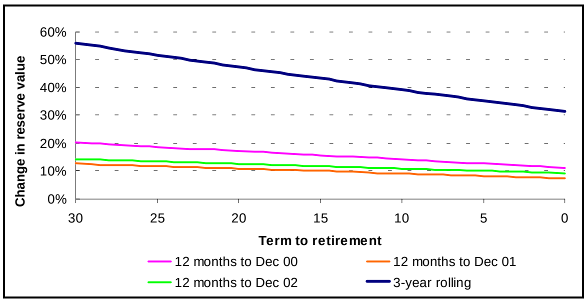
FRS17 volatility and Corporate Bond market information

Figure 6a: Credit Margin
Basis points (units of 0.01%) relative to gilts



Note 1: BBB stocks were very sparse prior to 1993; thus earlier data should not be taken as very reliable
Note 2: Table 2c includes Gilt irredeemables under the > 15 Yrs category for simplicity.
Note 3: Small figures in Tables 2b,c are for 12 months earlier.
Sources: Barclays Capital (ex Fig 6b), Jagger & Associates

Figure 6b: FRS17 volatility indicator
12 month and 36 month change in active reserve



Eg: A scheme whose actives on average now have 15 years to retirement will have seen their FRS17 liability value grow by 12% over the last 12 months, and by 43% over the last three years, which is 13% per annum. These can be compared with the market returns in Table 1.

Table 2a: Trends in Long-dated AA Credit Margins

Month End	AA rated Yield (%)	Gilt Yield (%)	Credit Margin (%)
Jul 2002	5.77	4.82	0.95
Aug 2002	5.41	4.52	0.89
Sep 2002	5.30	4.36	0.94
Oct 2002	5.46	4.53	0.93
Nov 2002	5.57	4.67	0.90
Dec 2002	5.32	4.49	0.83

Table 2b: Breakdown of Market Size

Category	Market Value (£bn @ 31 Dec 02 & 01)		Weight (%)
Gilts	216	210	45.9
Non Gilts	255	226	54.1
AAA	97	90	20.6
AA	36	45	7.7
A	76	53	16.2
BBB	37	30	7.9
Not rated	9	8	1.7

Table 2c: Breakdown of Market Maturity

Category	Mkt Val (£bn @ 31 Dec 02 & 01)		W't (%)	Dur'n (yrs)
Gilts	216	210	45.9	7.8
< 5 Yrs	69	78	14.5	3.0
5 – 15 Yrs	84	70	17.9	7.3
> 15 Yrs	63	62	13.5	13.7
Non Gilts	255	226	54.1	8.5
< 5 Yrs	57	58	12.1	2.7
5 – 15 Yrs	92	78	19.5	7.0
> 15 Yrs	106	90	22.5	12.9

FRS17 and Corporate Bond Comment

- Both gilt and corporate yields fell slightly this month. The fall was larger for poorer rated bonds.
- The Corporate market is now significantly larger than the Gilt market. Interestingly, the aggregate supply of the two markets is fairly constant across the 5-15 Year and Over 15 Year bands, but still well short of potential demand.

JAGGER & ASSOCIATES

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