JAGGER & ASSOCIATES

Investment Update
December 2008

Investment Headlines & Comment

- **Sterling** had another poor month (a record 17% rise for the **Euro**). The latest month for UK **Property** is its worst on record, but US and Euro **High Yield** have rallied from their lows.
- **GLG** have acquired **SocGen**'s asset management arm, and likewise **Aberdeen** have taken on **Credit Suisse**'s. Are these just cases of buying assets to manage, e.g. to protect banking covenants?
- **UK Debt / GDP %** goes haywire if RBS is included. **Hedge fund fraud** (Madoff) revealed. iBoxx have modified their **corporate bond index** pricing to address distortions from poor liquidity.

Feature Section

We have commented in previous issues on the dramatic increase in credit margins (i.e. the gap between the yields on gilts and corporate bonds). This month we consider the trade-off between default rates and recovery rates implied by these credit margins. (Strictly a liquidity premium would also apply, however we have assumed it to equal zero in this analysis.) If gilts and corporates are priced correctly then the credit margin will be just sufficient to compensate for the increased occurrence of default, allowing for any recovery of assets when the bond defaults. As an example over a 1-year period, this can be expressed by the following equation:

$$(1 + \text{Gilt Yield}) = (1 + \text{Corporate Yield}) \times (1 - \text{Default Rate}) + (\text{Recovery Rate}) \times (\text{Default Rate})$$

Figure 1a plots the implied default rate against the required recovery rate, using yields as at June 2007 and December 2008. In June 2007, the market was pricing for a default rate on corporate bonds of 0.8% assuming no recovery, or equivalently a default rate of 1.2% assuming 40% of the value of the bond would be recovered. By December 2008, credit margins had widened out, implying a default rate of 3.0% (no recovery), or 4.7% (40% recovery). Figure 1b uses the same approach on Sterling High Yield Bonds (note the changed horizontal scale). In June 2007, the market was pricing for a default rate on high yield bonds of 3.0% (no recovery), or equivalently a default rate of 4.4% (40% recovery). By December 2008, high yield margins had widened out, implying a default rate of 14.8% (no recovery), or 22% (40% recovery).

Figure 1a: Investment Grade

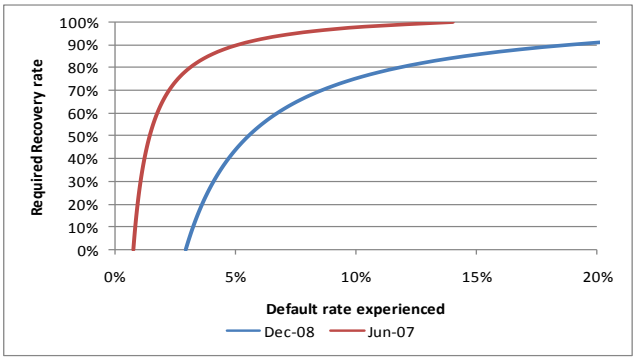


Figure 1b: High Yield

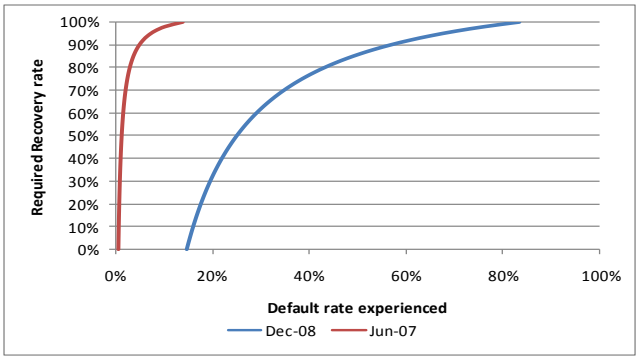


Figure 1c shows the average 1-year percentage default rates (weighted by issuer), using data from 1981 to 2007. This is a rather benign period in terms of corporate defaults so some care should be taken when interpreting the results. For example, almost no AAA-rated bonds defaulted within a year – as would be expected, given the nature of AAA-rated institutions. Conditions in June 2007 were fairly consistent with the default rates experienced assuming no level of recovery, but current implied default rates on investment grade corporates are now consistent with historic *high yield* rates. Have those yields overshot?

Sources: Barclays Capital, MLX, FT, Standard & Poors, J&A

Figure 1c: Default Rates (%) Global Universe

Time	***1 year***
Investment grade	*0.1*
AAA	*0.0*
AA	*0.0*
A	*0.0*
BBB	*0.2*
High Yield	*2.8*
BB	*0.8*
B	*6.3*
CCC/C	*25.6*
All ratings	*1.0*

Asset Class Returns

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 this.
[**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 December 2008

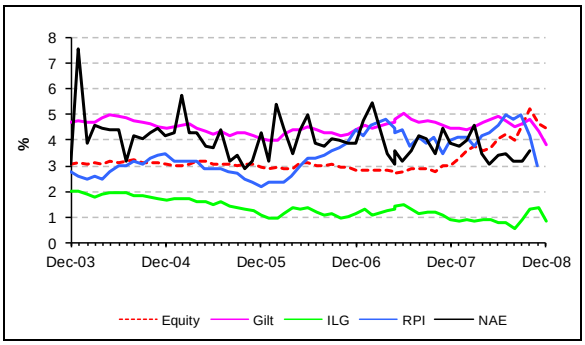
Asset Class	1 month (%)	3 months (%)	12 months (%)	3 years (% p.a.)	5 years (% p.a.)	10 years (% p.a.)
UK Equities	3.7	-10.2	-29.9	-4.8	3.5	1.2
Overseas Equities	11.4	-3.1	-18.5	-1.2	5.5	2.2
US Equities	8.1	-3.5	-12.5	-2.6	2.6	**0.1**
Europe ex UK Equities	15.7	-4.1	-25.9	1.2	8.2	3.2
Japan Equities	15.3	12.9	-1.1	**-5.0**	5.3	2.6
Pacific ex Japan Equities	**16.6**	-4.7	-33.0	2.5	10.9	8.1
Emerging Markets	13.3	**-11.6**	**-36.4**	0.7	**12.5**	**11.2**
UK Long-dated Gilts	8.0	13.9	13.6	5.3	7.0	5.2
UK Long-dated Corp. Bonds	4.9	2.8	-6.1	-2.3	**2.4**	4.3
UK Over 5 Yrs Index-Linked Gilts	10.4	-0.5	3.3	4.8	6.6	5.5
High Yield (Global)	14.7	1.1	-0.1	0.2	3.7	3.7
Overseas Bonds	14.8	**37.7**	**58.1**	**16.9**	11.3	7.6
Property *	**-5.1**	-10.9	-21.3	-2.1	5.4	7.9
Cash	0.3	1.2	5.7	5.6	5.2	5.1
Commodities £-converted	-8.9	-35.3	-27.3	-10.8	1.7	8.8
Hedge Funds original $ basis *	-2.3	-14.2	-18.1	1.0	4.2	7.7
Illustrative £-converted version *	3.1	2.1	10.0	5.2	6.6	8.6
Euro relative to Sterling	16.9	22.7	31.7	12.1	6.5	3.2
US $ relative to Sterling	5.1	22.1	35.8	5.6	4.2	1.3
Price Inflation (RPI) *	-0.8	-0.6	3.0	3.7	3.4	2.8
Price Inflation (CPI) *	-0.1	0.2	4.1	3.0	2.5	1.8
Price Inflation (RPIX) *	-0.4	-0.2	3.9	3.5	3.0	2.6
Earnings Inflation **	-0.1	-1.1	3.6	3.7	3.7	3.9
All Share Capital Growth	3.5	-11.0	-32.8	-8.1	0.0	-1.9
Net Dividend Growth	-0.5	-13.4	-0.1	5.7	7.7	4.0
Earnings Growth	-1.1	3.9	-10.1	8.4	15.8	6.9

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

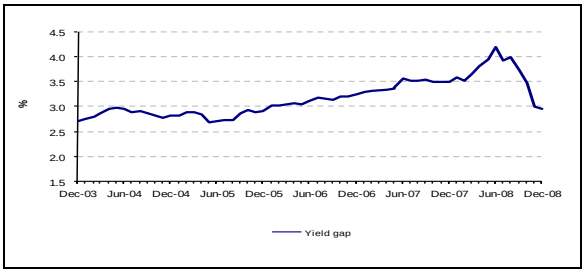
- *UK Equities (incl. dividends and earnings) – FT-A All Share.*
- *Overseas Equities (incl. regions) – blend of FT All-World / World subindices*
- *Emerging Markets from MSCI US $ based total return index (overall Index to 31 Oct 2001, Free Index from 1 Nov 2001 to take account of foreign investment restrictions), conversion to UK £ by J&A.*
- *UK Bonds – FT-A indices (Gilts Over 15 Years, ILG Over 5 Years)*
- *UK Corporate Bonds – Barclays Capital 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 – IPD Monthly 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 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.*

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.

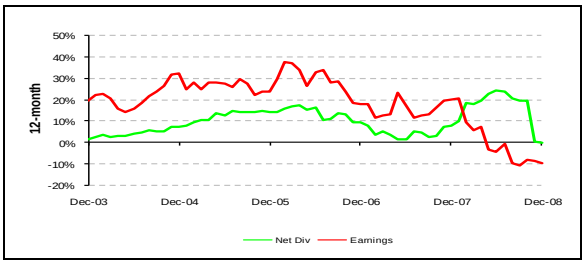


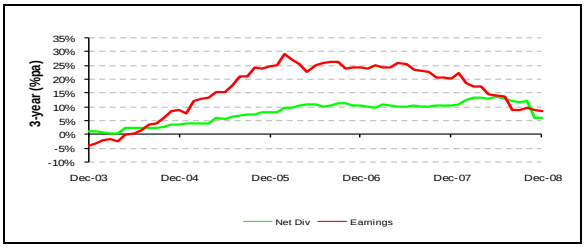
The gap has stabilised this month, with expectations of 3% for longer-term inflation + risk premium for conventional bonds, relative to index-linked.

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

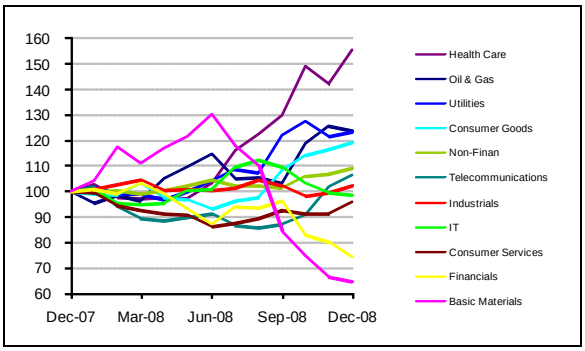




Sources for charts on this page:
Financial Times, Office for National Statistics, J&A

UK Equity Sector Returns

Figure 4a: Sectors relative to All Share



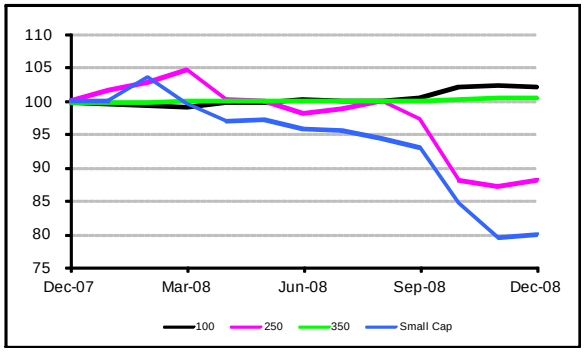
Note: Relative lines' labels for sectors in end-value order

Basic Materials have fallen back further this month.

(% absolute return)	1 mth	3 mth	12 mth
Oil & Gas	2.1	8.0	-13.2
Basic Materials	0.9	-31.3	-54.9
Industrials	6.4	-10.5	-28.4
Consumer Goods	6.1	-0.9	-16.6
Health Care	13.2	7.6	9.0
Consumer Services	8.7	-7.1	-32.8
Telecommunications	8.4	9.7	-25.3
Utilities	5.4	-9.1	-13.5
Non-Finan	5.8	-3.2	-23.5
Financials	-4.1	-30.5	-47.9
IT	2.6	-19.2	-31.0
All Share	3.7	-10.2	-29.9

UK Equity Size Returns

Figure 4b: Size groups relative to All Share



Small and Mid Cap rallied very slightly this month.

FRS17 volatility indicator

Now discontinued, but available on request.

Bond market information

Figure 5: £ Non-Gilt Credit Margins

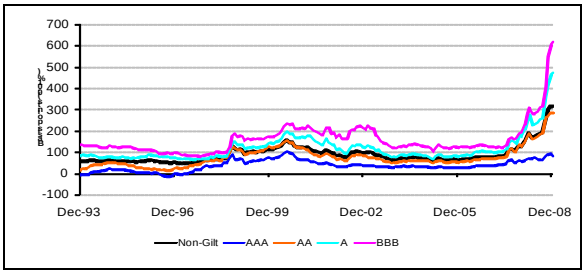


Table 2a: Over 15 Yr Corporate Yields & Margins

Month End	iBoxx Corp AA (%)	FT 20 yr Gilt Yield (%)	Margin (%)
Jul 08	6.51	4.76	1.75
Aug 08	6.33	4.55	1.78
Sep 08	7.17	4.65	2.52
Oct 08	7.42	4.83	2.59
Nov 08	7.05	4.37	2.68
Dec 08	**6.60**	**3.81**	**2.79**

Tables 2b, 2c: £ Market Size and Maturity

Category	Mkt Val (£bn @ Dec 08 & 06, 04)			Weight (%)
Gilts (30)	502	319	263	54.5
Non Gilts (1,125)	419	405	326	45.5
AAA (235)	161	149	122	17.5
AA (228)	73	65	48	7.9
A (392)	121	123	98	13.1
BBB (256)	62	64	53	6.8
Not rated (14)	3	3	5	0.3

Category	Mkt Val (£bn @ Dec 08, 06)		W't (%)	Dur'n (yrs)
Gilts (30)	502	319	54.5	9.4
< 5 Yrs (10)	143	65	15.5	2.5
5–15 Yrs (9)	162	116	17.5	7.1
> 15 Yrs (11)	198	109	21.4	16.3
Non Gilts (1,125)	419	405	45.5	6.7
< 5 Yrs (347)	150	112	16.3	2.3
5–15 Yrs (468)	152	161	16.5	6.8
> 15 Yrs (310)	118	132	12.8	12.2

£ Gilt Market "main" Issuance

- £2.25bn 4¼% 2049 (2.12x, yield 4.07%, prev Oct 08)
- £3.50bn 4½% 2013 (1.96x, 3.16%, Oct 08)
- £3.50bn 3¼% 2011 (1.57x, 2.59%, Nov 08)
- £1.25bn ILG 1¼% 2032 (1.58x, r.y. 1.50%, Oct 08)

Tables 2d, 2e: € Market Size and Maturity (Dec 08)

Category	Mkt Val (€bn)	Weight (%)
Sovereigns (243)	3,425	60.7
Non Sovereigns	2,213	39.3
AAA (623)	1,144	20.3
AA (407)	476	8.5
A (532)	411	7.3
BBB (251)	182	3.2

Category	Mkt Val (€bn)	Weight (%)
1 – 3 Yrs (611)	1,597	28.3
3 – 5 Yrs (512)	1,258	22.3
5 – 7 Yrs (358)	764	13.6
7 – 10 Yrs (372)	965	17.1
10+ Yrs (203)	1,054	18.7

Table 2f: Breakdown of £ Index-Linked Market

Category (Number of issues)	Mkt Val (£bn @ Dec 08 & 06)		W't (%)	Dur'n (yrs)
Gilts (14)	173	131	90.6	13.7
< 5 Yrs (2)	32	21	16.8	3.6
5 – 15 Yrs (4)	58	60	30.4	8.8
> 15 Yrs (8)	82	49	42.9	21.2
Non Gilts (56)	18	13	9.4	16.4

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

Month End	US (%)	Euro (%)	Sterling (%)
Jul 08	10.51	12.54	12.64
Aug 08	10.41	12.45	12.57
Sep 08	12.55	15.55	17.16
Oct 08	16.83	21.72	18.89
Nov 08	19.11	24.03	22.56
Dec 08	**16.20**	**21.10**	**21.53**

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

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