JAGGER & ASSOCIATES

Investment Update
April 2010

Investment Headlines & Comment

- European Government **bond news** – Greece's woes continue with 10 year yields over 9%. Ireland are next, then Spain, Italy - then UK.
- The **2025 gilt** (3.4% of the market) moves out of the long-dated gilt index, adding almost ½ a year to that index's duration.
- **F&C** have increased assets under management, and product range, through the purchase of **Thames River Capital**.

Feature Section

This month, we consider a second variety of protection, namely put options, and how their pricing may or may not be an answer for any investors considering protecting the strong equity gains from the last 12 months shown overleaf in Table 1. (**Ed:** Remarkably, although we touched on equity market volatility measures in our October 2008 issue, this is the first time we have written on put options in *Investment Update*, so we had better start with an introduction.)

Buying a put option is akin to purchasing insurance against an equity market fall. In return for an initial premium, the holder of the option knows that at the end of (or in some cases during) the lifetime of the option, if the market falls below a certain level X and he/she exercises the option, then the insurance will pay out the difference so that the total assets do not fall below their value at market level X (but the payout is in cash, so there could be reinvestment costs to get it actually into the market assets). If the market does not fall below X, the insurance does not pay out anything, and the option expires worthless. (This means that in the absence of market movements, the value of a put option declines as the time to maturity reduces, and its effect is proportionately greater for options at shorter terms. Similarly, the impact of bid-offer spreads is greater on options of shorter term.)

If X is the current market level, the option is said to be "at the money", and gives protection against all of any fall in the market level. If X is (say) 5% below the current market level, the option is said to be "out of the money", and only gives protection against the fall beyond any initial 5% fall. The combined payoff for the "asset + option" is illustrated in Figure 1 below, which includes an allowance for the option cost of (say) 3%. The insurance premium for an out of the money option is less than for the at the money option, because it gives less protection. Hence it boils down to a question of how much protection the Trustees and/or Employer want. (An option which is "at" or "out of the money" has no intrinsic value, but it does have "time value" from the potential for markets to move. This "time value" decays to zero as the option approaches maturity.) Table F.1 below shows the premium that an investor would need to pay to protect against a given level of market fall. When taking these quotes off the LIFFE system, the FTSE100 stood at 5,615, and the implied market volatility is well over 20% per annum.

Figure 1: Protective Put (value of option+asset)

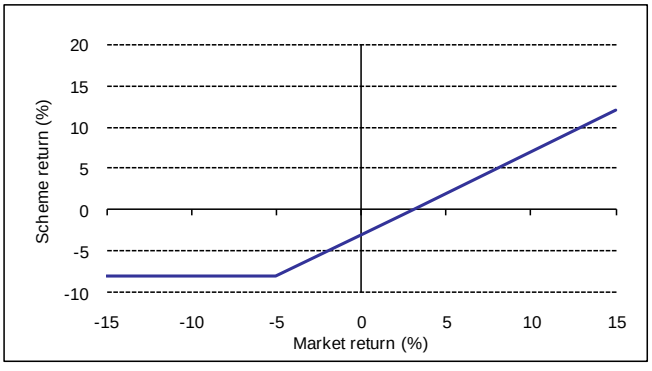


Table F.1: Prices, spreads and volatility

	Percentage Capital Market Fall	Premium as a % of market exposure
Sept 2010		
	-5.6%	3.3%
	-7.4%	2.8%
	-9.2%	2.4%
Dec 2010		
	-5.6%	4.9%
	-7.4%	4.4%
	-9.2%	3.9%

The Table shows that even for comparatively short periods of protection, and with material falls still to be borne by the option holder, the premiums involved are not trivial, which may be surprising. Selling off some upside could raise some income to offset the premiums, but in current conditions, very little upside would remain.

Investors should also be aware that to carry out any trades through LIFFE could prove difficult if there is not an existing suitable account for them to use – the paperwork for getting a new account set up is fairly demanding (and this may lead to an Employer doing it via the relevant department of their bank, rather than their pension scheme trustees trying to). Also, if there is no suitable account, that would increase the likelihood of going through an investment bank, using "over the counter" options instead of exchange-traded options. These are generally more expensive, and not as easy to sell.

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 30 April 2010

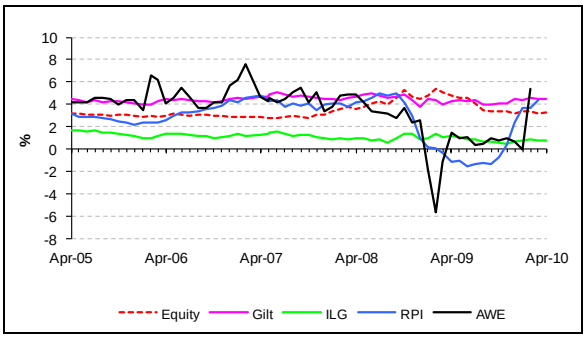
Asset Class	1 month (%)	3 months (%)	12 months (%)	3 years (% p.a.)	5 years (% p.a.)	10 years (% p.a.)
UK Equities	-1.4	8.8	36.6	-1.5	7.3	2.8
Overseas Equities	-0.6	13.6	35.8	4.6	10.5	2.2
US Equities	0.6	**16.1**	34.5	4.3	7.8	0.2
Europe ex UK Equities	**-3.8**	6.1	29.3	-1.2	10.3	3.6
Japan Equities	-1.0	11.3	21.2	0.3	6.1	**-2.1**
Pacific ex Japan Equities	0.6	15.8	52.2	13.7	19.9	11.0
Emerging Markets	0.3	14.9	**52.5**	14.0	**22.2**	**11.6**
UK Long-dated Gilts	0.8	**0.0**	3.0	5.0	4.2	4.5
UK Long-dated Corp. Bonds	0.8	1.8	23.2	4.0	4.0	6.0
UK Over 5 Yrs Index-Linked Gilts	0.2	2.2	11.1	7.0	6.1	5.7
High Yield (Global)	1.0	10.0	43.3	17.1	13.7	8.1
Overseas Bonds	-0.9	3.3	2.7	**17.7**	9.6	7.3
Property *	**2.2**	5.7	16.3	**-8.2**	**1.6**	6.4
Cash	0.1	0.2	**0.8**	3.8	4.2	4.5
Commodities £-converted	0.8	14.6	25.1	0.4	-0.5	4.2
Hedge Funds original $ basis *	2.7	2.6	22.7	2.2	6.1	5.9
Illustrative £-converted version *	3.0	9.2	15.9	11.3	10.8	6.4
Euro relative to Sterling	-2.6	0.2	-2.9	8.4	5.1	4.1
US $ relative to Sterling	-0.9	4.6	-3.2	9.3	4.5	0.2
Japanese Yen relative to Sterling	-1.5	1.0	1.3	18.4	6.8	1.6
Price Inflation (RPI) *	0.7	1.2	4.4	2.6	3.0	2.7
Price Inflation (CPI) *	0.5	0.8	3.4	2.9	2.7	2.1
Price Inflation (RPIX) *	0.7	1.2	4.8	3.5	3.3	2.8
Earnings Inflation **	8.5	10.8	5.4	1.3	3.6	4.1
All Share Capital Growth	-1.6	7.6	31.8	-5.2	3.6	-0.5
Net Dividend Growth	0.9	4.4	-11.2	-0.2	3.9	3.5
Earnings Growth	9.6	25.2	-15.3	-9.1	2.6	4.8

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

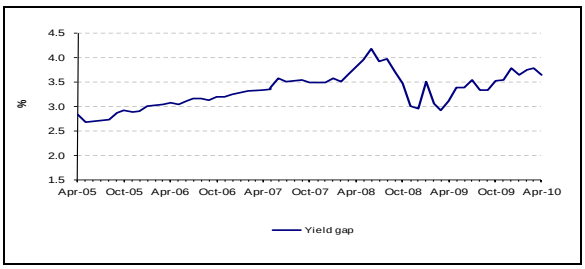
- *UK Equities (incl. dividends and earnings) – FT-A All Share.*
- *Overseas Equities (incl. regions) – blend of FT All-World / World subindices*
- *Emerging Markets from MSCI US $ based total return index (overall Index to 31 Oct 2001, Free Index from 1 Nov 2001 to take account of foreign investment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

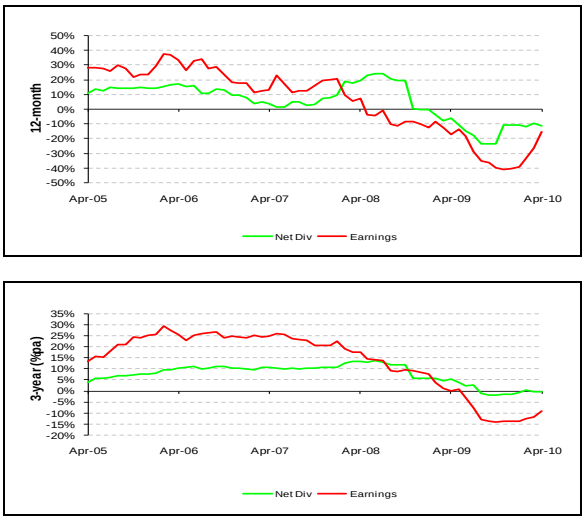


The gap gives expectations over 3.5% for longer-term inflation + risk premium for gilts, relative to index-linked gilts.

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*]

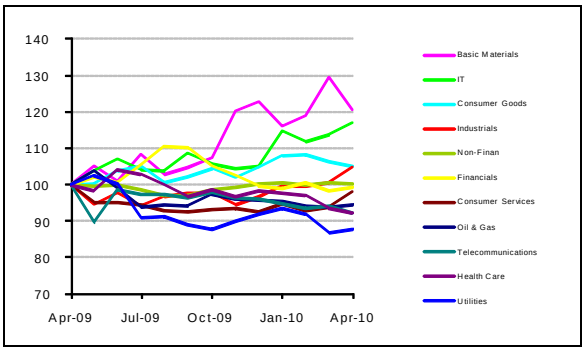
Figure 3: Dividend & Earnings Growth



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



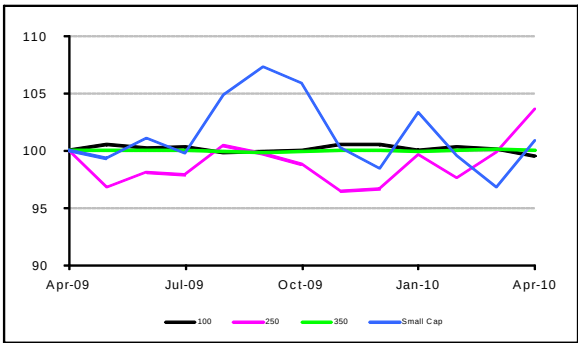
Note: Relative lines' labels for sectors in end-value order

A major decrease this month in the rolling 12-month sector dispersion (down heavily from 54% to 33%).

(% absolute return)	1 mth	3 mth	12 mth
Oil & Gas	-0.6	7.6	29.0
Basic Materials	-8.3	13.2	64.6
Industrials	2.8	14.6	43.1
Consumer Goods	-2.6	5.9	43.3
Health Care	-2.7	2.6	25.9
Consumer Services	3.0	12.4	33.7
Telecommunications	-3.3	6.0	25.9
Utilities	-0.1	2.2	19.7
Non-Finan	-1.7	8.6	36.9
Financials	-0.3	9.5	35.7
IT	1.5	10.9	59.6
All Share	-1.4	8.8	36.6

UK Equity Size Returns

Figure 4b: Size groups relative to All Share



Mid Cap and Small Cap rose in relative terms this month.

FRS17 volatility indicator

Now discontinued, but available on request.

Bond market information

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

Figure 5: £ Non-Gilt Credit Margins

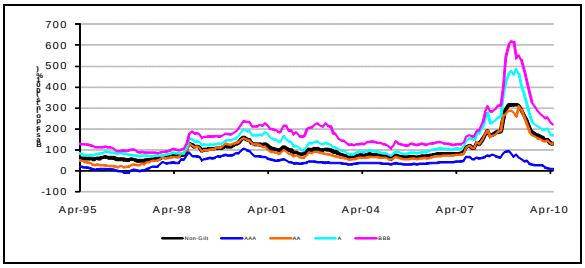


Table 2a: Over 15 Yr Corporate Yields & Margins

Month End	iBoxx Corp AA Y'ld (%)	FT 20 yr Gilt (%)	Margin (%)
Nov 09	5.34	4.03	1.31
Dec 09	5.58	4.46	1.12
Jan 10	5.46	4.38	1.08
Feb 10	5.63	4.58	1.05
Mar 10	5.42	4.49	0.93
Apr 10	**5.38**	**4.44**	**0.94**

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

Category	Mkt Val (£bn @ Apr 10 & 08, 06)			Weight (%)
Gilts (33)	714	347	297	60.6
Non Gilts (1,022)	465	422	374	39.4
AAA (182)	142	160	141	12.0
AA (184)	72	63	58	6.1
A (380)	160	131	114	13.6
BBB (276)	92	65	57	7.8

Category	Mkt Val (£bn @ Apr 10, 08)		W't (%)	Dur'n (yrs)
Gilts (33)	714	347	60.6	8.9
< 5 Yrs (9)	204	86	17.3	2.8
5–15 Yrs (11)	267	118	22.7	7.3
> 15 Yrs (13)	243	142	20.6	15.8
Non Gilts (1,022)	465	422	39.4	7.3
< 5 Yrs (267)	134	139	11.4	2.5
5–15 Yrs (470)	199	164	16.9	6.9
> 15 Yrs (285)	132	119	11.2	12.8

£ Gilt Market "main" Issuance

- £4.50bn 4½% 2013 (2.02x, 1.80%, prev Oct 09)
- £4.58bn 4¾% 2015 (1.88x, 2.91%, Apr 09)
- £4.13bn 4¾% 2020 (1.90x, 4.08%, Mar 10)
- £2.48bn 4¼% 2039 (2.00x, 4.60%, Mar 10)
- £1.10bn ILG 1¼% 2032 (2.14x, r.y 0.94%, Mar 10)
- £0.90bn ILG $^{5}/_{8}$% 2042 (1.66x, r.y 0.69%, Oct 09)

Tables 2d, 2e: € Market Size and Maturity (Apr 10)

Category	Mkt Val (€bn)	Weight (%)
Sovereigns (274)	3,990	57.7
Non Sovereigns	2,931	42.3
AAA (674)	1,328	19.2
AA (392)	571	8.2
A (628)	683	9.9
BBB (410)	350	5.1

Category	Mkt Val (€bn)	Weight (%)
1 – 3 Yrs (711)	1,925	27.8
3 – 5 Yrs (705)	1,673	24.2
5 – 7 Yrs (410)	969	14.0
7 – 10 Yrs (337)	1,140	16.5
10+ Yrs (215)	1,214	17.5

Table 2f: Breakdown of £ Index-Linked Market

Category (Number of issues)	Mkt Val (£bn @ Apr 10 & 08)		W't (%)	Dur'n (yrs)
Gilts (17)	225	170	90.4	14.2
< 5 Yrs (2)	36	23	14.4	2.4
5 – 15 Yrs (5)	90	76	36.2	8.8
> 15 Yrs (10)	99	71	36.9	23.4
Non Gilts (52)	24	16	9.6	17.8

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

Month End	US (%)	Euro (%)	Sterling (%)
Feb 10	8.23	8.74	10.74
Mar 10	7.73	7.58	9.48
Apr 10	**7.54**	**7.51**	**9.31**

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