JAGGER & ASSOCIATES

Investment Update
July 2010

Investment Headlines & Comment

- Volatile **UK Equity earnings**, falling (due to BP) this month but next month a banks-led rise ?
- **Index-Linked Gilt yields** rise, due to the RPI/CPI change and supply (over £8bn this month).
- **Irish and Portuguese debt** was downgraded this month, halting the Euro's brief strengthening.

Feature Section

This month, we return to the question of deciding whether equities are cheap or expensive. Previously, we looked at this relative to gilts, but this time we look at it as a question in absolute terms, using an approach originally suggested by the Yale economist Robert Shiller for analysing US market data. (See http://www.econ.yale.edu/~shiller/data.htm if interested.)

The problem Shiller sought to address was the way that current prices are forward-looking, whereas actual earnings data is historic (although analysts will derive estimates of prospective earnings). So, the calculation of a price-earnings (P/E) ratio can be distorted by sentiment in the prices, which needs identifying once earnings fluctuations have been removed. His suggestion for this latter point was to use inflation-adjusted earnings over the preceding 10 years. For the US, he used data from 1871 onwards in his analysis. (You might reasonably ask whether values that far back reflect the structure of markets now and whether there should be equal weighting in the 10 years).

In the UK, the All Share index only started publishing a P/E ratio in 1993 (and no back history was created). For the period from 1962 to 1993, the P/E ratio was only published for the index excluding Financials (also known as the FT 500), so this is what we have used, coupled with ONS inflation data, to create a "Shiller P/E" series for the UK. Figure 1a shows the published P/E and the Shiller P/E, starting from the end of the first 10 years of the index in 1972. Their ratio would show the extent of the earnings adjustment, but the focus in Figure 1b is on the Shiller P/E's value relative to its historical average (which for the whole 38 year period is just over 15x). Crudely, when it is above the average, this suggests the market may be expensive, whereas if it is below the average, there may be a buying opportunity.

Figure 1a: Non-Financials P/E outputs

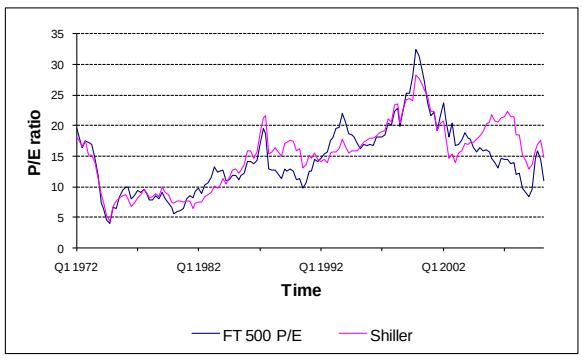
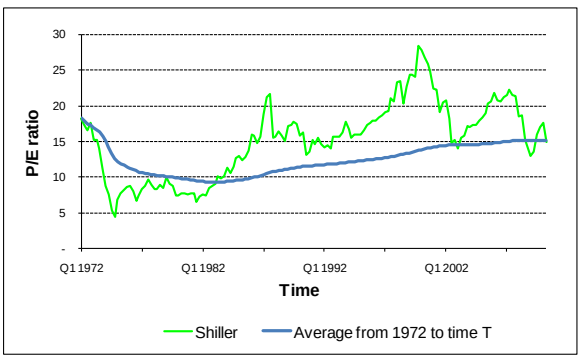


Figure 1b: Shiller output and past averages



Sources: FTSE, ONS, Jagger & Associates

From Figure 1a, it is clear that the two series are quite strongly correlated (at about 86%), but there are some periods when the Shiller series moves strongly ahead, such as in 2007, and these are the periods where it may be felt to give a useful signal that one (or both) of earnings and market valuations may be out of line. From Figure 1b, it appears that markets have been overpriced for much of the last 30 years, but at the moment, the Shiller series suggests neutral valuation of the UK "excluding Financials" index. However, it is not obligatory to use the entire back-history. If you use the average for only the last 20 or 30 years (about 18x and 16x respectively), then the market appears slightly undervalued. We have repeated the analysis for the All Share index (its first 10-year period ends in 2003, so there is rather less data to use). The conclusions there are similar, but the extent of the earnings adjustment is far greater.

So, in the absence of an objective choice for the averaging period, the results require caution. However, there is the further complication that the P/E ratio (whether plain or Shiller-adjusted) should arguably vary with other market conditions, specifically the real yield on index-linked government bonds. The inverse of the P/E ratio is effectively an earnings yield, and in times where the government bond's real yield is high, then the earnings yield should be higher to compensate for this, and so the P/E ratio would be lower as a result. This gets you back to the "Equity Risk Premium" analysis from our November 2009 *Update* (and earlier editions in 2003).

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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 July 2010

Asset Class	1 month (%)	3 months (%)	12 months (%)	3 years (% p.a.)	5 years (% p.a.)	10 years (% p.a.)
UK Equities	**6.9**	-4.4	19.3	-2.5	4.2	2.1
Overseas Equities	3.0	-7.3	18.3	2.0	5.5	1.2
US Equities	2.1	**-9.1**	20.3	2.0	2.5	-1.1
Europe ex UK Equities	6.7	-4.9	13.0	-2.4	5.8	2.4
Japan Equities	-1.2	-8.9	5.6	-2.6	2.5	**-2.1**
Pacific ex Japan Equities	2.5	-5.1	23.7	7.3	14.2	9.9
Emerging Markets	3.6	-4.0	27.3	7.7	**16.0**	**11.2**
UK Long-dated Gilts	-1.3	**4.1**	8.4	6.5	4.4	5.0
UK Long-dated Corp. Bonds	0.2	2.4	15.2	5.7	3.6	6.4
UK Over 5 Yrs Index-Linked Gilts	**-1.8**	-0.3	7.5	6.3	5.6	5.6
High Yield (Global)	0.0	-1.7	**30.9**	18.6	10.4	7.3
Overseas Bonds	-1.3	2.3	12.7	**19.2**	9.1	6.8
Property *	1.0	3.6	23.9	**-7.7**	**1.4**	6.5
Cash	0.1	0.2	**0.7**	3.3	4.0	4.3
Commodities £-converted	0.9	-9.1	5.3	-4.5	-5.9	1.8
Hedge Funds original $ basis *	-0.9	-2.6	9.2	-0.3	5.2	5.7
Illustrative £-converted version *	-3.8	-1.2	20.3	10.0	9.1	5.8
Euro relative to Sterling	1.6	-4.2	-2.7	7.3	3.8	3.0
US $ relative to Sterling	-4.5	-2.2	5.9	9.1	2.4	-0.4
Japanese Yen relative to Sterling	-2.4	6.0	16.3	21.3	7.8	1.9
Price Inflation (RPI) *	0.2	1.5	5.0	2.6	3.1	2.7
Price Inflation (CPI) *	0.2	1.0	3.2	3.0	2.8	2.1
Price Inflation (RPIX) *	0.2	1.5	5.0	3.6	3.5	2.9
Earnings Inflation **	0.1	-7.9	1.2	2.1	3.1	3.5
All Share Capital Growth	6.8	-5.2	15.4	-6.2	0.5	-1.2
Net Dividend Growth	4.8	-4.0	-7.9	-1.9	1.9	3.2
Earnings Growth	-12.4	-6.5	-4.2	-12.2	0.2	4.0

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.*

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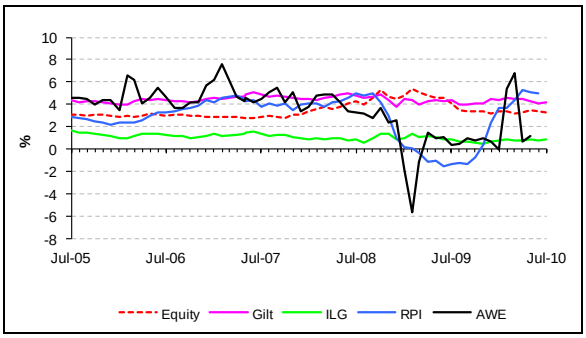
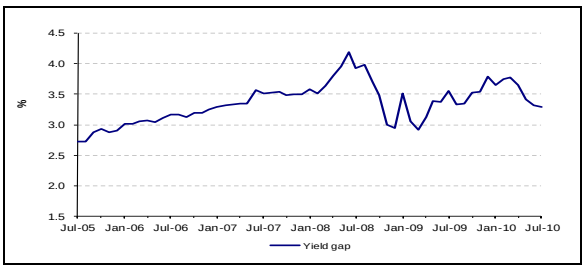
Yields and Yield Gaps

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.

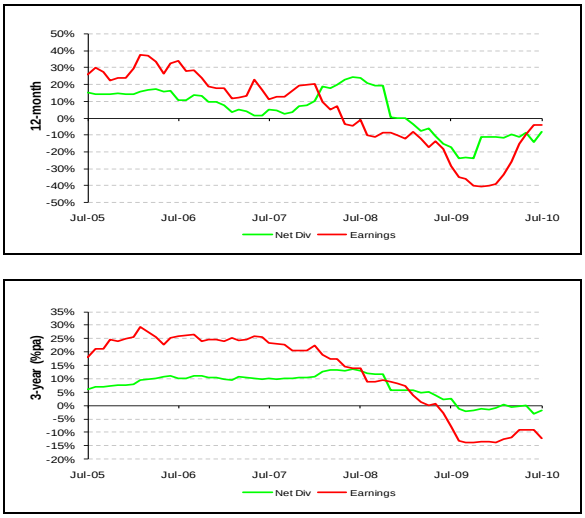


The gap gives expectations slightly over 3% for longer-term inflation + risk premium for gilts, relative to index-linked gilts.

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*]

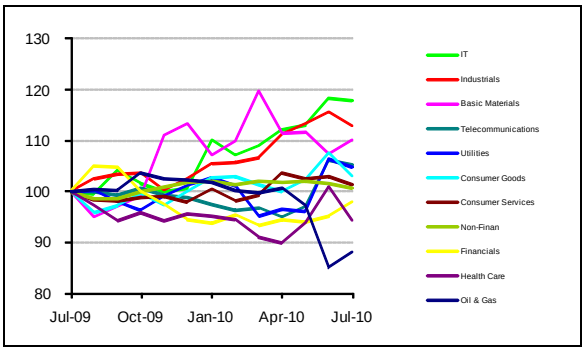
Figure 3: Dividend & Earnings Growth



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



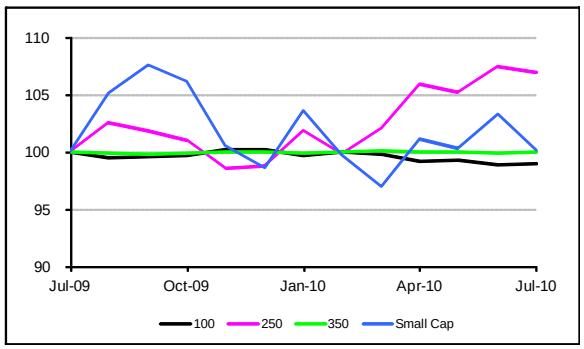
Note: Sector labels for relative lines are in end-value order

A fall this month in the rolling 12-month sector dispersion (down slightly from 34% to 30%).

(% absolute return)	1 mth	3 mth	12 mth
Oil & Gas	10.6	-16.4	5.0
Basic Materials	9.7	-5.5	31.4
Industrials	4.3	-3.0	34.5
Consumer Goods	2.4	-1.5	22.9
Health Care	-0.1	0.3	12.4
Consumer Services	5.1	-6.6	20.9
Telecommunications	6.1	6.1	25.7
Utilities	5.3	3.9	25.0
Non-Finan	6.0	-5.4	20.1
Financials	9.9	-0.9	16.8
IT	6.5	0.4	40.6
All Share	6.9	-4.4	19.3

UK Equity Size Returns

Figure 4b: Size groups relative to All Share



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

FRS17 volatility indicator

Now discontinued, but available on request.

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Bond market information

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

Figure 5: £ Non-Gilt Credit Margins

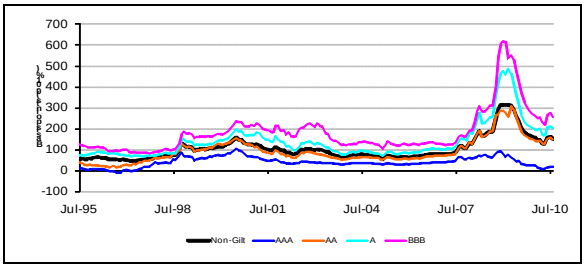

Table 2a: Over 15 Yr Corporate Yields & Margins

Month End	iBoxx Corp AA Y'ld (%)	FT 20 yr Gilt (%)	Margin (%)
Feb 10	5.63	4.58	1.05
Mar 10	5.42	4.49	0.93
Apr 10	5.38	4.44	0.94
May 10	5.39	4.25	1.14
Jun 10	5.25	4.10	1.15
Jul 10	**5.29**	**4.18**	**1.11**

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

Category	Mkt Val (£bn @ Jul 10 & 08, 06)			Weight (%)
Gilts (34)	774	362	307	62.2
Non Gilts (1,019)	471	426	392	37.8
AAA (177)	142	151	148	11.4
AA (176)	72	74	64	5.8
A (398)	167	131	115	13.4
BBB (268)	90	66	61	7.3

Category	Mkt Val (£bn @ Jul 10, 08)		W't (%)	Dur'n (yrs)
Gilts (34)	774	362	62.2	8.8
< 5 Yrs (9)	221	92	17.7	2.7
5–15 Yrs (12)	297	122	23.9	7.1
> 15 Yrs (13)	256	147	20.6	16.0
Non Gilts (1,019)	471	426	37.8	7.3
< 5 Yrs (257)	132	141	10.6	2.4
5–15 Yrs (480)	207	164	16.7	6.9
> 15 Yrs (282)	131	121	10.5	12.9

£ Gilt Market "main" Issuance

- £3.75bn 4% 2016 (1.38x, 2.52%, prev July 09)
- £3.57bn 3¾% 2020 (2.45x, 3.47%, June 10)
- £2.42bn 4¼% 2046 (1.63x, 4.17%, April 07)
- £1.24bn ILG $1^{7}/_{8}$% 2022 (1.76x, r.y. 0.95%, May 10)
- £6.00bn ILG $^{5}/_{8}$% 2040 (1.63x, r.y. 1.02%, Jan 10)
- £0.88bn ILG ¾% 2047 (2.40x, r.y. 0.67%, Feb 10)

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

Category	Mkt Val (€bn)	Weight (%)
Sovereigns (256)	4,007	58.2
Non Sovereigns	2,876	41.8
AAA (653)	1,293	18.8
AA (388)	569	8.3
A (615)	666	9.7
BBB (413)	348	5.1

Category	Mkt Val (€bn)	Weight (%)
1 – 3 Yrs (690)	1,894	27.5
3 – 5 Yrs (696)	1,640	23.8
5 – 7 Yrs (410)	968	14.1
7 – 10 Yrs (321)	1,148	16.7
10+ Yrs (208)	1,233	17.9

Table 2f: Breakdown of £ Index-Linked Market

Category (Number of issues)	Mkt Val (£bn @ Jul 10 & 08)		W't (%)	Dur'n (yrs)
Gilts (17)	239	169	91.2	14.7
< 5 Yrs (2)	36	14	13.8	2.1
5 – 15 Yrs (5)	93	77	35.5	8.7
> 15 Yrs (10)	110	77	41.9	23.9
Non Gilts (49)	23	17	8.8	17.8

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

Month End	US (%)	Euro (%)	Sterling (%)
Apr 10	7.54	7.51	9.31
May 10	8.45	8.92	10.43
Jun 10	8.28	8.75	10.60
Jul 10	**7.70**	**7.83**	**9.59**

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