$\mathbf{J}^{\underline{AGGER}}$ & $\mathbf{A}^{\underline{SSOCIATES}}$

Investment Update October 2011

Investment Headlines & Comment

- This month, the UK made the world's longest sovereign indexlinked debt, maturing in 2062 (£4.5bn sold, real yield 0.49%).
- Equity markets rallied strongly when Eurozone woes appeared to ease but now the Greeks have 'decided' on a referendum. Oops.

Feature Section

of that part of ING, three managers are moving from ING's property fund-of-funds to Aegon. Most index-tracking products are based on indices where constituents are weighted

according to their market capitalization (commodities being an exception, where world production is used instead). One convenient by-product of these weights is that market movements keep such an index in line with its construction rules ("self-replicating"). So, market movements do not trigger a need for rebalancing with associated transaction costs (although market entries and exits, and income distributions do). However, some indices are perhaps vulnerable to sentiment, and overly concentrated. Is there a better way to build indices? A simple approach is equal weighting, and another more statistical approach is "minimum variance" where you try to construct diversified portfolios to minimize volatility. In this Update item, however, we look at "Fundamental indexation", which has been in the headlines this month after the PPF elected to move some equity assets into it.

"Fundamental indexation" (FI) emerged as a concept in research papers in 2004 from Research Affiliates (hence the indices are known as RAFI, with the main Global Equity one being the RAFI 3000). It starts from the belief that underlying corporate accounting/valuation figures are more accurate estimators of a company's intrinsic value (Ed: assuming that they are not open to manipulation by those companies' accountants). In some respects it is just a quant or rule-based system taking as its inputs a company's sales, earnings and dividends, cash flow and so on. The resulting portfolios tend to have something of a Small Cap bias (relative to conventional indexation), and also a bias to so-called "value" stocks, for example with unusually low P/E ratios or high dividend yields.





Figure 1a: Cumulative total return (USD)





Figure 1b: Quarterly returns (RAFI versus FTSE AW)

Figure 1a shows the cumulative total return for the RAFI 3000 and for the FTSE All World, and Figure 1b shows the quarterly pattern (both indices are shown in US Dollar terms, to reflect the reporting convention adopted by RAFI). The RAFI 3000 was launched in October 2008 (just as the 'credit crunch' was getting going) so data prior to that is a back-test. It has a high correlation (96%) with the All World, and is slightly more volatile, but whilst there was little difference in the 1990s, RAFI has often done better in periods of high volatility.

Whereas FT indices update their weightings quarterly, RAFI does this annually in March, and because their indices are not self-replicating, there is a greater element of rebalancing costs (whose effect is not included in the data for the charts, but is still likely to be below 0.1% pa in most cases).

RAFI sector weightings can jump - for example RAFI moved markedly into Financials in the 2009 rebalancing. Since then it has also had a persistent underweight in the Technology sector. Versus conventional indices, the RAFI 3000 is currently significantly overweight in Europe, and underweight in North America and Asia ex Japan.

The challenge for fundamental index managers is to prove that their index funds provide more than just the small cap and the value stock premium. It's also worth noting that few quant managers' past models or systems have come through the last decade's major changes in markets unscathed.



• Ahead of the CBRE acquisition

Sources: Bloomberg, J&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 <u>cannot</u> 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.]

Asset Class	1 month	3 months	12 months	3 years	5 years	10 years	20 years
	(%)	(%)	(%)	(% p.a.)	(% p.a.)	(% p.a.)	(% p.a.)
UK Equities	7.9	-4.6	0.6	13.4	1.7	5.2	7.9
Overseas Equities	6.8	-5.7	-0.4	12.9	4.1	4.9	7.1
US Equities	7.1	-0.9	6.8	11.6	3.9	2.8	9.0
Europe ex UK Equities	8.4	-12.0	-9.1	9.5	1.0	5.9	8.5
Japan Equities	-3.8	-8.0	-2.3	5.3	-2.0	1.8	-0.1
Pacific ex Japan Equities	9.0	-9.1	-4.7	25.3	11.2	14.1	9.3
Emerging Markets	9.3	-10.4	-8.3	23.7	10.5	16.0	9.3
UK Long-dated Gilts	2.8	12.2	18.5	12.0	6.9	6.2	9.2
UK Long-dated Corp. Bonds	2.1	4.6	8.2	13.5	4.6	5.7	-
UK Over 5 Yrs Index-Linked Gilts	-0.2	3.7	15.2	11.7	7.3	7.2	8.1
High Yield (Global)	3.1	-1.2	2.5	23.8	11.7	8.3	-
Overseas Bonds	-3.5	2.4	2.5	9.0	11.7	6.4	7.3
Property *	0.6	1.9	8.7	2.5	-1.1	6.6	8.4
Cash	0.1	0.2	0.8	1.1	3.0	3.7	5.2
Commodities £-converted	5.9	-3.8	9.1	-3.1	0.2	3.9	3.7
Hedge Funds original \$ basis *	-3.7	-6.5	-0.7	4.2	3.2	6.4	10.8
Illustrative £-converted version *	0.7	-3.7	0.4	9.0	7.1	5.8	11.5
Euro relative to Sterling	0.3	-1.3	-0.6	3.3	5.2	3.4	-
US \$ relative to Sterling	-3.5	1.7	-0.9	0.1	3.4	-1.0	0.4
Japanese Yen relative to Sterling	-4.6	0.6	2.3	8.1	12.2	3.5	3.0
Price Inflation (RPI) *	0.8	1.1	5.6	2.9	3.5	3.1	2.9
Price Inflation (CPI) *	0.7	1.3	5.2	3.1	3.3	2.5	2.2
Price Inflation (RPIX) *	0.8	1.2	5.7	3.9	4.0	3.2	3.0
Earnings Inflation **	-1.6	-0.8	1.9	1.5	2.5	3.1	3.6
All Share Capital Growth	7.8	-5.5	-2.6	9.4	-1.8	1.7	4.3
Net Dividend Growth	-1.6	0.6	5.0	-6.0	0.5	3.6	-
Earnings Growth	-10.7	-7.8	37.1	3.9	3.6	7.9	-

Table 1: Investment Data to 31 October 2011

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 now well below 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*]





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

There was a marked fall this month in the rolling 12month sector dispersion (down from 37% to 30%).

(% absolute return)	1 mth	3 mth	12 mth
Oil & Gas	12.4	-1.2	11.2
Basic Materials	13.6	-16.6	-12.8
Industrials	8.1	-5.8	2.8
Consumer Goods	4.3	2.1	16.3
Health Care	3.8	1.4	12.8
Consumer Services	6.3	-2.1	-4.4
Telecommunications	4.2	-0.9	7.2
Utilities	0.3	2.6	9.6
Non-Finan	7.7	-3.2	4.8
Financials	8.7	-9.4	-12.9
IT	5.7	1.8	17.5
All Share	7.9	-4.6	0.6

UK Equity Size Returns

Figure 4b: Size groups relative to All Share



Small Cap fell dramatically in relative terms this month; Mid Cap also fell but less markedly.

FRS17 volatility indicator

Now discontinued, but available on request.

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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 (%)
May 11	5.26	4.06	1.20
June 11	5.54	4.21	1.33
July 11	5.21	3.87	1.34
Aug 11	5.30	3.68	1.62
Sep 11	5.06	3.25	1.81
Oct 11	4.89	3.19	1.70

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

Category	Mkt Val (£bn			Weight
	@ Oct 11 & 09, 07)			(%)
Gilts (35)	928	666	323	66.2
Non Gilts (1,015)	473	482	429	33.8
AAA (170)	129	150	155	9.2
AA (173)	78	66	66	5.6
A (388)	163	165	135	11.6
BBB (284)	103	98	69	7.4

Category	Mkt Val (£bn		W't	Dur'n
	@ Oct 11,09)		(%)	(yrs)
Gilts (35)	928	666	66.2	9.7
< 5 Yrs (9)	270	201	19.3	3.0
5-15 Yrs (11)	294	213	21.0	7.3
> 15 Yrs (15)	364	252	26.0	16.7
Non Gilts (1,015)	473	482	33.8	7.7
< 5 Yrs (262)	122	154	8.7	2.6
5–15 Yrs (473)	205	192	14.6	6.8
> 15 Yrs (280)	147	135	10.5	13.0

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

£ Gilt Market "main" Issuance

- o £4.88bn 1¾% 2017 (1.66x, 1.55%, prev Sept 11)
- o £3.57bn 3¾% 2021 (1.76x, 2.24%, Sept 11)
- o £2.20bn 4¼% 2039 (2.26x, 3.52%, Apr 10)
- £0.94bn ILG $1^{1}/_{8}$ % 2037 (1.36x, r.y 0.33%, Apr 11)
- £4.50bn ILG ³/₈% 2062 (2.18x, r.y 0.49%, new) Note: Issuance amounts are nominals.

Tables 2d, 2e: € Market Size and Maturity (Oct 11)

Category	Mkt Val (€bn)	Weight (%)
Sovereigns (251)	4,011	57.3
Non Sovereigns	2,985	42.7
AAA (675)	1,318	18.8
AA (417)	586	8.4
A (678)	702	10.0
BBB (465)	379	5.4

Category	Mkt Val (€bn)	Weight (%)
1 – 3 Yrs (814)	2,014	28.8
3 – 5 Yrs (664)	1,594	22.8
5 – 7 Yrs (412)	944	13.5
7 – 10 Yrs (380)	1,266	18.1
10+ Yrs (216)	1,177	16.8

Table 2f: Breakdown of £ Index-Linked Market

Category (Number of issues)	Mkt Va Oct 11	l (£bn @ & 09)	W't (%)	Dur'n (yrs)
Gilts (18)	305	209	91.9	16.7
< 5 Yrs (2)	49	34	14.8	3.3
5 – 15 Yrs (4)	84	83	25.3	8.9
> 15 Yrs (12)	172	91	51.7	24.4
Non Gilts (47)	27	21	8.1	17.5

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

Month End	US (%)	Euro (%)	Sterling (%)
June 11	7.06	7.66	8.68
July 11	6.93	7.52	8.92
Aug 11	7.82	9.25	10.26
Sep 11	8.65	10.58	11.27
Oct 11	7.62	9.05	10.31



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