



# **Market Risk Report**

## **January 2008**

### **False Dawn?**



## *Year End Review*

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Compared with the gyrations of mid-2007, volatility measures were relatively stable at year-end suggesting a late return of confidence after the sub-prime debacle. Equity and bond markets thus started 2008 with VIX volatility of 22.5 compared with the 07 high of 31.1; even oil appeared to be proving the gloomsters wrong after backing away from the \$100 spot level – but there were worrying signals in gold, currencies and soft commodities – as commented on individually below.

The numbers tell us that markets are not out of the woods – sentiment tells us we might be heading deeper into the forest. Investor reaction to Central Bank policies to counter the latent inflation threat will be pivotal in determining 08 market direction and volatility. The early signs are that the world's central banks are pandering to popular opinion to avert worst-scenario fears – seemingly giving the market what it wants rather than setting rates on credit and inflation criteria. That said the threat of developed-market

recession seems certain to keep central banks compliant with market hopes in the short term with echoes of the 1973/74 period still alive to the few remaining die-hards of that era.

The next month or two will prove critical with volatility measures giving sensitive, advanced insight.

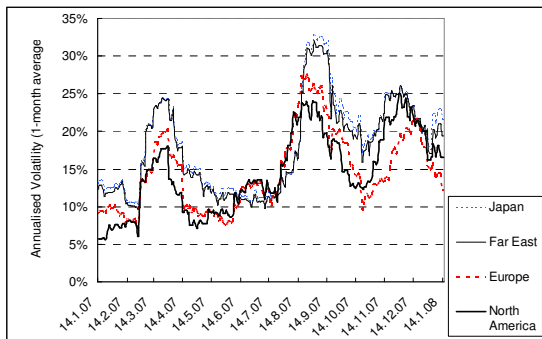
Before discussing the sub-sectors of our monthly risk analysis, we would draw attention to four new charts. These show 2007 wheat futures and underlying volatility, compared with 1973 wheat futures and volatility. As will be seen, they have uncomfortable parallels as the 73 chart was replicated in 74 – perhaps 08 will be different?

With best wishes for a Happy New Year from all at IRML: our December 07 volatility report follows:-

## Equities

### Volatility: Regions

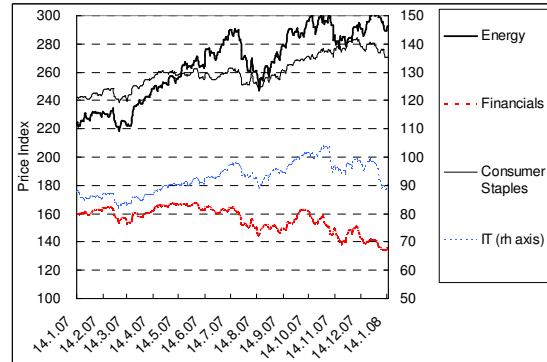
During the first half of December volatility rose to peak at 25%, short of the year high of 32%. During the latter part of December, volatility came back down to 17% the level at the beginning of December considerably higher than the lows of 7% at the start of the year. European equities in particular gave rise to optimism falling to 15% at the end December compared with the 18-08-07 “high” of 27%.



Note: based on MSCI regional indices

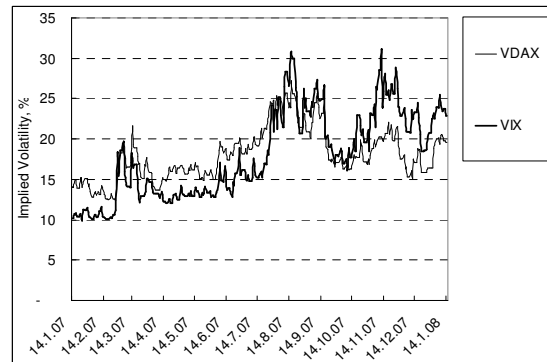
### Volatility: Sectors

There was a similar pattern in sector volatility with a peak at mid-December followed by a decline towards year-end, financials falling from the years high of 28.2% to 18.2% with only IT and consumer staples bucking the trend.



### Implied Volatility (Market-Implied Near Term Outlook)

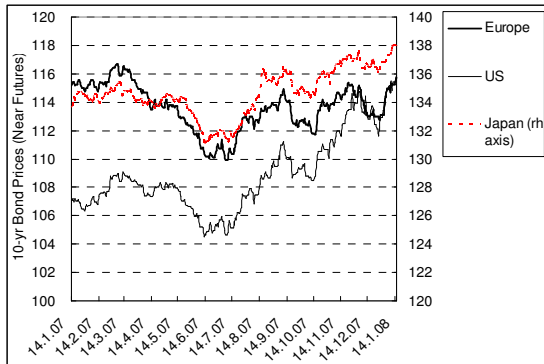
After the high of 31% in November Implied Volatility eased but still ending the year significantly higher than 12 months previously – the VIX registering 22.5% versus 11.6% at 01-01-07



## Fixed Income (10 Year Government Bonds)

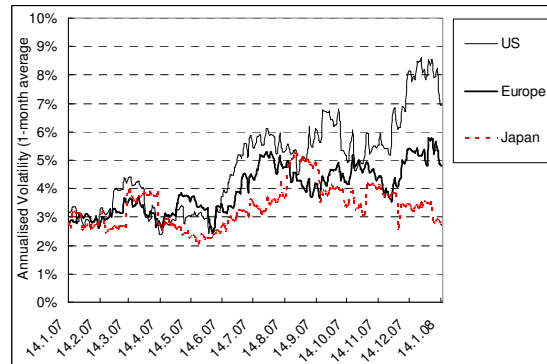
### Prices

The phrase “Flight to Quality” remained true and continues to support prices in the US where bonds closed significantly higher than the beginning of the year – 10-year bond futures rising to 113.4 versus 107.5.



### Volatility

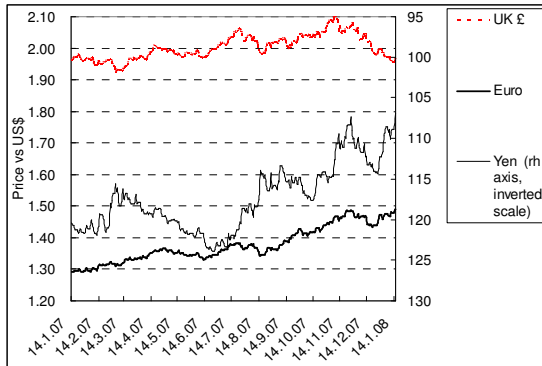
After a new high of 6.8% in November 07, December was even more volatile – reaching another new high of 8.6% while Europe and Japan remained relatively stable ending December slightly lower over the month



## FX

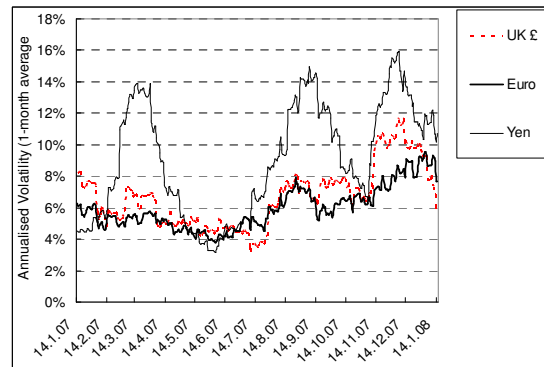
### Prices

With the Federal Reserve pursuing an aggressive monetary policy, the US Dollar has continued to decline. The bullish rise of the Euro has also impacted upon GBP with the Sterling Euro exchange presently at a historic low of 1.32



### Volatility

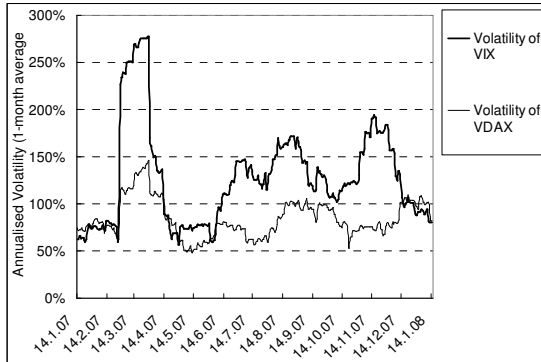
Early to mid-December saw large rises in FX volatility with \$/Yen reaching a year high of nearly 16% albeit with some softening as the year closed.



## *(Equity) Options*

### **Volatility of Implied Volatility**

After the peaks of late November early December the volatility of implied volatility subsided and ended the year only slightly higher than as at the beginning of 2007



#### **Note on Treatment**

Options show more complex behaviour than the other instruments we look at in this report, so we make some simplifying assumptions. As Calls and Puts are in effect polar opposites and in and out of the money

options behave very differently, it is hard to generalise all options' behaviour. However, we look at the two key drivers: volatility of implied volatility and major price movements of the underlying security.

Implied volatility (via the option Vega) drives option prices, so a big indicator of option price volatility is the "volatility of implied volatility".

Of course the biggest driver of individual option prices is the movement of the underlying (via the option Delta): a move in either direction will cause the option to go in or out of the money (and a corresponding change in the option Delta and price volatility). As a proxy for this, we look at the 30-day price swing of equity market indices; options on bonds or FX could of course behave differently. Calls and Puts will respond in opposite fashions: calls becoming more volatile as prices rise.

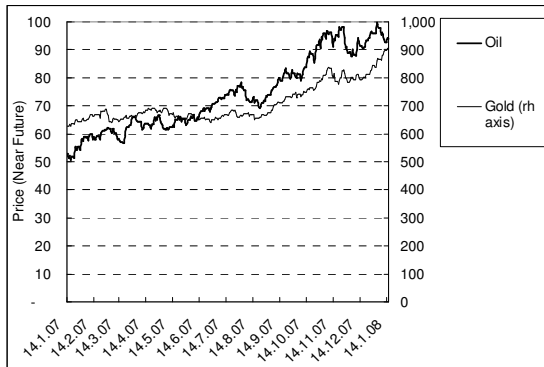
#### **Note on Convertibles**

Convertibles are in effect a combination of a bond and a call option, with the bond portion usually making little contribution to the instrument volatility unless the option is out of the money. As such, convertible portfolios' volatilities will normally behave similarly to call option portfolios, and this commentary can be applied to convertibles as well as options.

## Commodities

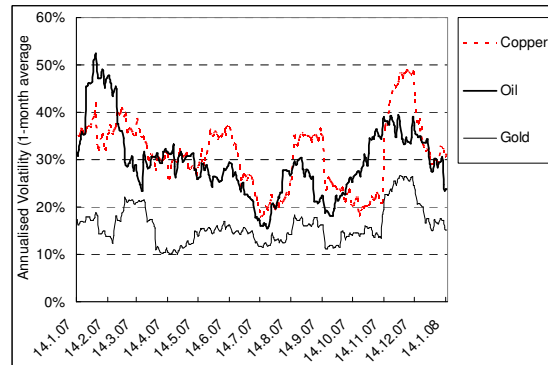
### Prices

With continued weakness in the USD, commodity prices continue to rise with the now infamous print of \$100 oil in early January. That said, the first two weeks of the New Year saw retracement from this level – worryingly soft commodities were less accommodating.



### Volatility

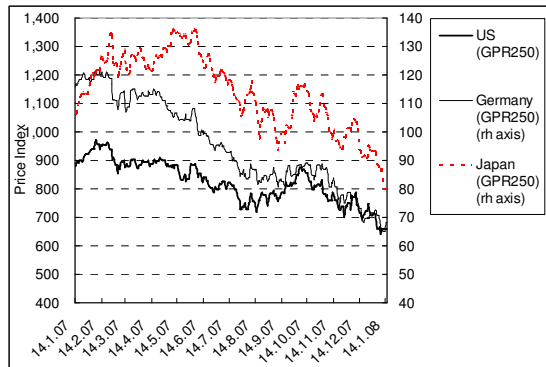
With increases in December and a year high for copper, volatility of commodities subsided back to the same levels at the beginning of the year but as shown below this may prove a false dawn as far as soft commodities - particularly food commodities are concerned.



## Real Estate (Real Estate Share Prices)

### Prices

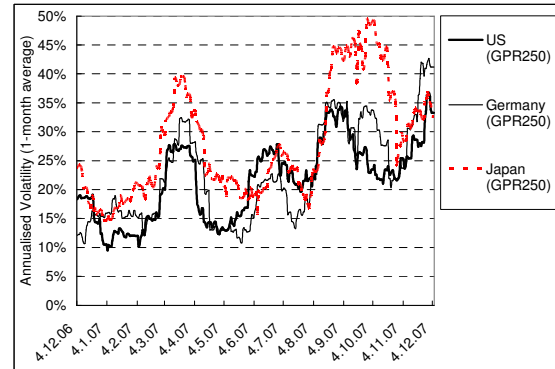
Property prices represented by real estate shares fell sharply in November.



### Volatility

Real Estate volatility rose during the month and reached 12-month high in the US and Germany.

### Real Estate volatility levels went even higher



### Note

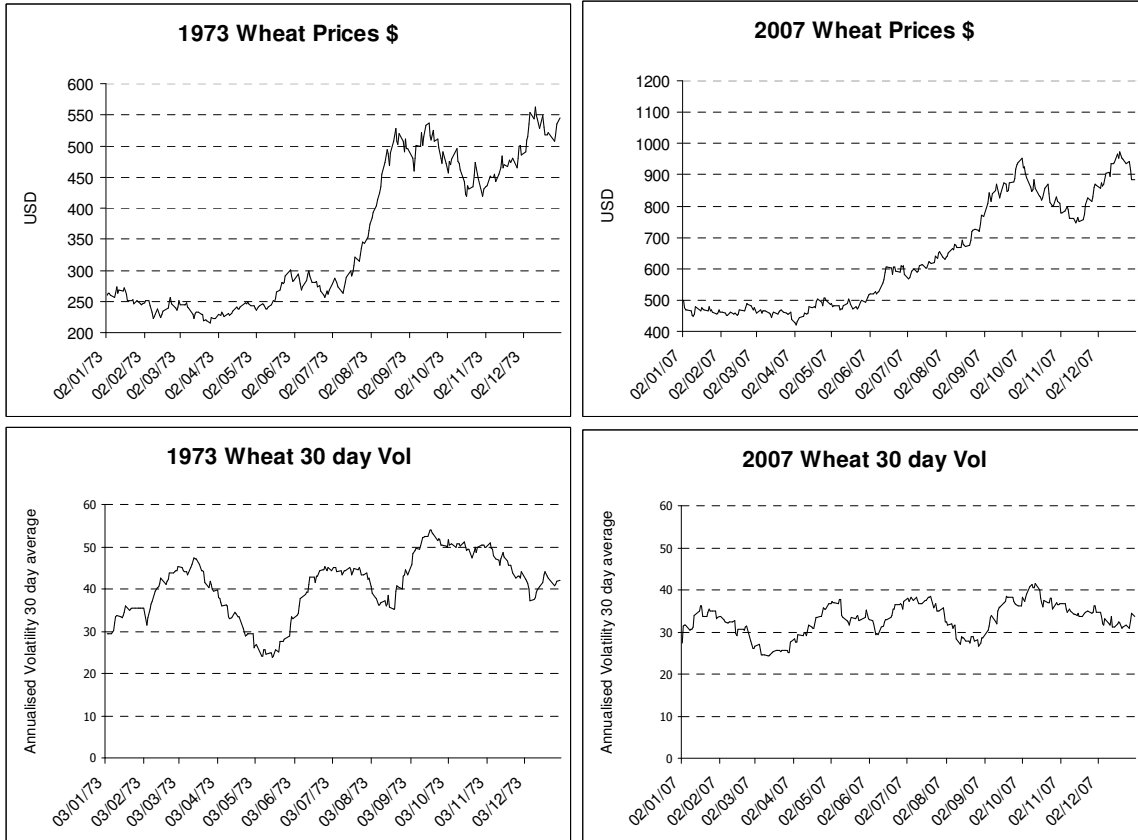
Note that for property we just look at indices of the share prices of property companies, and not the underlying property directly, for which little data is available. This is usually consistent with funds which tend to invest in property indirectly, e.g. via REIT's.

As REIT's are usually focussed on commercial property, residential housing may also follow a slightly different pattern to that discussed in this article.

## Special Report Soft Commodities

### Wheat Futures

As noted in our opening comments, wheat futures in 2007 showed uncomfortable correlation with 1973 – a year marked by a secondary banking crisis of similar magnitude – impact wise if not in actual billions – to the sub-prime fallout...





## *Notes*

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### *Definitions*

*To avoid repetitions, the term volatility refers to annualised, 30-day average realised volatility in local currency unless otherwise specified. As such, it may be lower than, and lag, shorter-term market volatility in times of high market volatility.*

*Charts show data up until 4<sup>th</sup> December 2007 and the commentary was written on or before 10<sup>th</sup> December 2007.*

### *Disclaimer*

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