

Market Risk Report

May 2007

Executive Summary

- Plus ça change... After a rise in volatility during March, April saw a rapid fall in volatility across all asset classes, to close to 20-years lows. Mega-deals, some good economic and corporate numbers pushed equity markets and bond yields up, but the dollar down.
- Equity markets rose again, and volatility levels fell back to just above 12-month lows. However, the VIX seems to have settled at a new higher level, around the 14% mark.
- Fixed income remains negatively correlated (but correlated nonetheless) to equities. Volatility fell back again to close to 12-month lows, and spreads continued to narrow: the EMBI spread reaching a 12-month low of just 161bp.
- FX volatility fell to exceptionally low levels during April: with Yen/\$ volatility falling from 13.9% to just 5.4%, and €/€ and £/\$ both just below 5%. The Euro hit a new high against the dollar of 1.3680.
- Option volatility would have fallen sharply during April as indicated by the fall of volatility of implied volatility from year-highs to near year-lows. Price movements in equity markets were relatively minor relative to strike prices.
- Commodities' prices rose due to political tensions in the Middle East and Nigeria. However, price rises were orderly and volatility remained close to or below 12-month averages; Gold even hit a new 12-month low of 10.1%.
- Real Estate prices continued to flounder after a strong run during 2006: volatility fell back to near 12-month lows.

In next month's issue: A look at global economic growth

Author: Niall O'Connor

Key News (Major Volatility-Driving Events)

Deals and growth lead the markets up

Large corporate deals filled the headlines again, including ABN AMRO, BA/Iberia and Alliance Boots.

Generally, the economic news during the last month was good, with good macro figures and solid corporate earnings announcements.

The German IFO survey, a key European business indicator, rose strongly to 108.6, suggesting the German economy is in good shape. This followed industrial production increasing 7.6% in the year to February and Euro-area unemployment falling 0.1% to 7.3% in February. Commerzbank even issued a positive profits “warning”.

The US economy showed more upbeat numbers during April: unemployment fell to just 4.4% and payroll numbers rose faster than expected (180,000). But US existing home sales fell 8.4% in March, one of the largest declines on record, and the 2006Q1 GDP growth of just 1.3% showed that the economy is fragile.

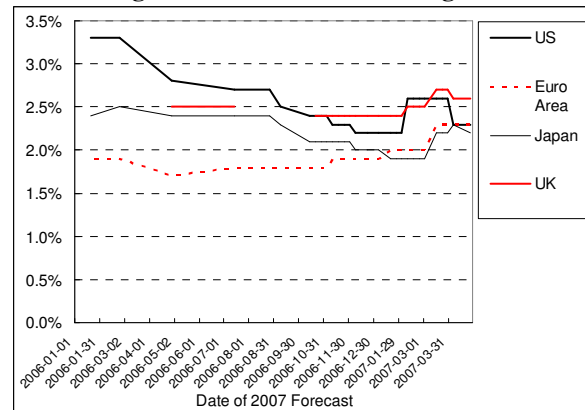
Chinese growth accelerated to 11.1% in the year to the end of Q1, raising concerns of a hard landing if the brakes were put on.

The Dow Jones closed above 13,000 for the first time ever.

Euro GDP growth to exceed US in 2007?

GDP growth estimates for 2007 remain bullish. The consensus 2007 growth estimate for Japan remains at 2.2% and for the Euro area at 2.3%. US numbers have been revised down to 2.3% for 2007: now at the same level as for Europe, but headed in the opposite direction.

2007 GDP growth estimates remain high



Yen volatility returns to normal

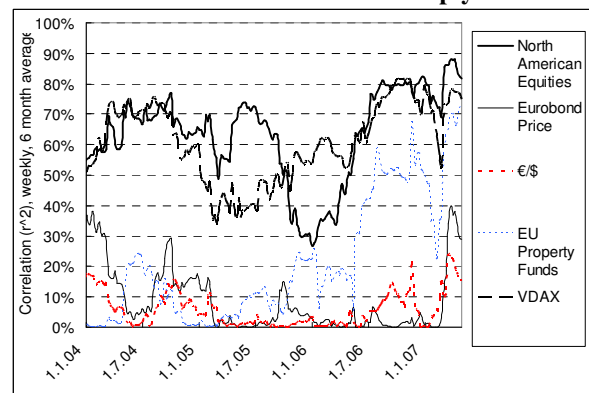
The large gyrations in the Yen appeared to abate and volatility returned to normal.

Correlations stay high

Inter-market correlations remain high. European equities have a correlation of 82% with North America, 75% with the VDAX and 73% with property shares. Bonds have now become more correlated with equities, at 29% (but are now correlated in a negative sense, with prices falling as equity markets rise).

The message remains from the last two months that good diversification is very hard to find.

Correlations between the European equity market and other asset classes have stayed high. Correlation with bonds has risen sharply



Oil prices rise again

Tensions in the Middle East remained high and strife in Africa hit Nigerian production. Consequently, the oil price rose again, to over \$65. However, the market does not seem to be focussing on oil, and it is worth bearing in mind



that the oil price is still down on a year ago, so it is likely it will actually be deflationary from now on.

Equities

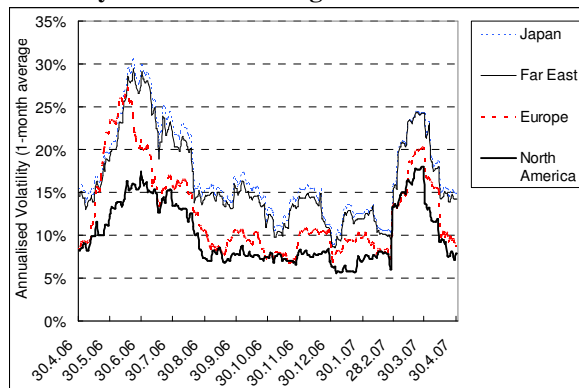
Overview: Deals and Good News

Equities were driven strongly upwards during April by a raft of deal announcements, including the huge one for ABN. Macro news was better than expected, as were corporate profits. However, despite beating expectations, we should warn the corporate profits growth was weak: for instance after reaching a 30-year high profits growth in the US was actually negative in Q4 2006.

Volatility: Regions

After strong gyrations in March, April saw a return to more orderly and bullish markets, and volatility fell to close to 12-month lows.

Volatility fell back in all regions



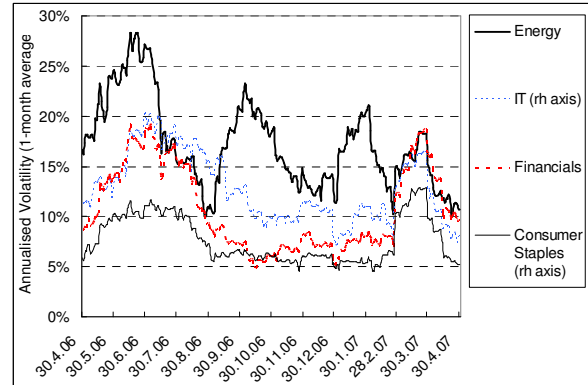
Note: based on MSCI regional indices

Volatility: Sectors

Sector volatilities also fell during April, again all ending the month below 12-month average levels.

Energy sector volatility, at 10.7%, almost reached its 12-month low, despite rising Oil prices.

Sector volatilities fell, especially Energy

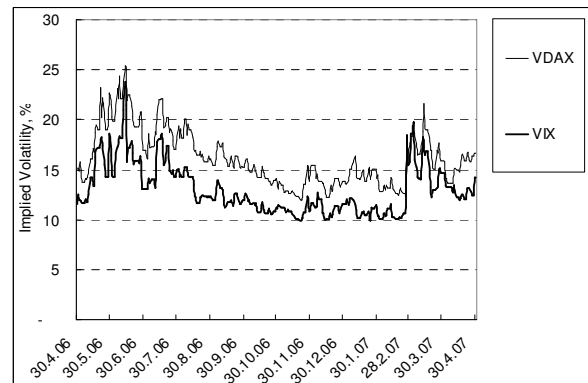


Implied Volatility (Market-Implied Near Term Outlook)

The VIX and VDAX indices show the expected volatility of the S&P500 and DAX respectively over the next 30 days based on options' prices.

Both spiked dramatically at the end of February but fell during March. In April both were stable at higher levels than we have seen over the last 12 months (14.2%, 16.7%).

The VIX (US) and VDAX (Germany) are both implying that equity volatility will remain higher over the next month

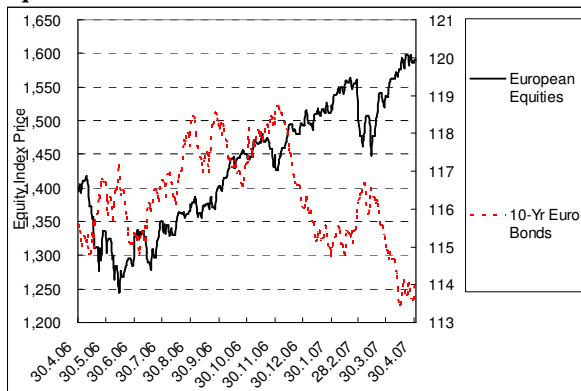


Fixed Income (10 Year Government Bonds)

Prices

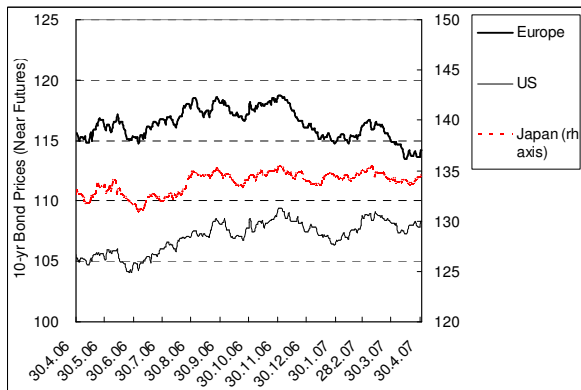
Bonds and equity prices were positively correlated for most of 2006. This relationship reversed at the start of this year as fears over a growth slowdown intensified. Prices fell at the start of the year, but recovered as equity markets fell.

Bonds have become negatively correlated with equities in 2007



Over the last month bond prices fell as economic growth prospects improved and equity markets rose again.

10-Year bond prices fell as equity markets recovered



Interest Rate Expectations

In general yield curves were unchanged during April.

US markets firmed their view of a rate cut within the next few months as the Fed minutes suggested an end to the tightening bias. 3-year bonds are yielding just 4.5% now.

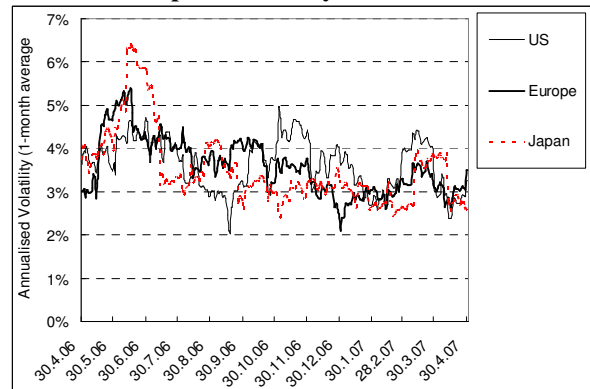
In the UK the market now expects rates of just over 5.75% within 6 months (although probably falling again in 2008), but does not confirm (newspaper?) speculation of a 50bp increase.

In Europe the yield curve looks more “normal” (upward sloping) and rate rise expectations remain with rates expected to rise from 3.75% to 4-4.25% within a year.

Volatility

Bond price volatility remained relatively low at between 2.6% and 3.5%: slightly below 12-month average levels.

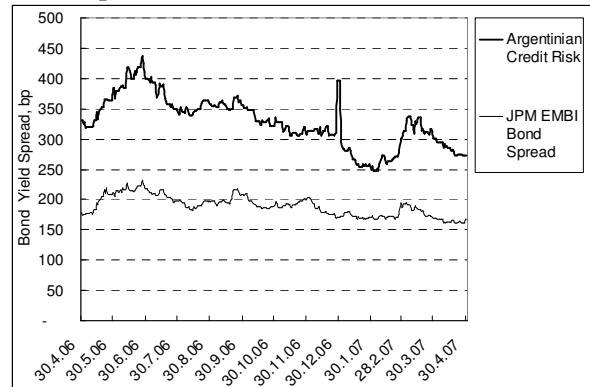
10-Year bond price volatility remained low



Spreads

Despite the concerns in the US over sub-prime mortgage lending, spreads of Emerging Market bonds over Developed (JPMorgan EMBI index) fell to just 170bp. Argentinean spreads fell below 270bp. The bond markets are suggesting very low fear levels.

Credit spreads continued to fall



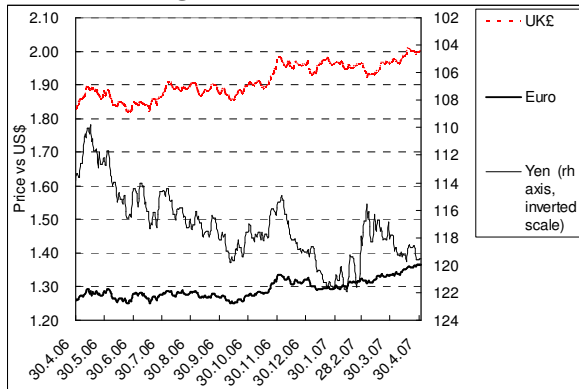
FX

Prices

Macro data drove FX rates during April: weaker US economic data kept the dollar down (at below 2 to the pound for a part of the month) while strong European data (e.g. the IFO survey) kept upward pressure on the ECB and led to a continuing rise in the Euro, which reached a new all-time high of 1.3680.

Turbulence in the Yen carry trade seems to have died down, and the Yen settled towards the 120 level.

The Euro strengthened. Yen fluctuations reduced



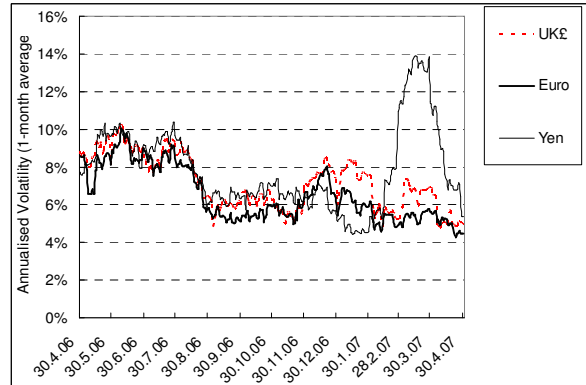
Volatility

As can be easily seen by the eye from the previous chart, the Euro and Pound volatility remained low against the Dollar: in fact the Euro even hit a new 12-month low of 4.3%.

Yen volatility dropped sharply from a peak of 13.9% to just 5.4%.

In fact all major currencies saw exceptionally low volatilities towards the end of April.

Currency volatility has all but gone!



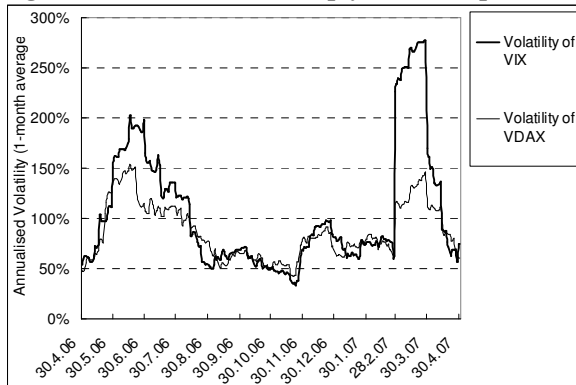
(Equity) Options

Volatility of Implied Volatility

Perhaps unsurprisingly, the chart of volatility of implied volatility looks similar to the VIX and VDAX, showing a peak in late June 2006 and a big spike in volatility in March 2007.

During April the volatility of volatility fell sharply back in both the US and Germany, both now being below 12-month average levels.

Volatility of volatility spiked to new 12-month highs in March, but fell sharply back in April



This large upswing in volatility would have increased the price of options, in some cases dramatically: this will have been reversed during April. (However, downside protection remains expensive: on the S&P it costs 16-17%.)

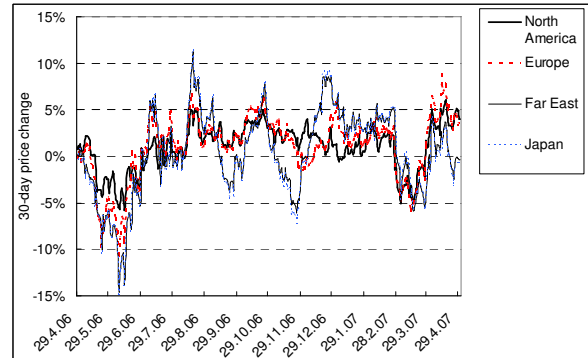
Likewise, the delta of far out-of-the-money options is likely to have decreased quite significantly, and with it options' volatility.

(Equity) Price Swings

Equity prices were mildly positive during April in Europe and the US, and neutral in Japan and the Far East.

This suggests that (equity) option deltas would have increased for calls and decreased for puts during April.

Equity prices rose slightly in Europe and North America, but stayed flat in Japan and the Far East during April



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

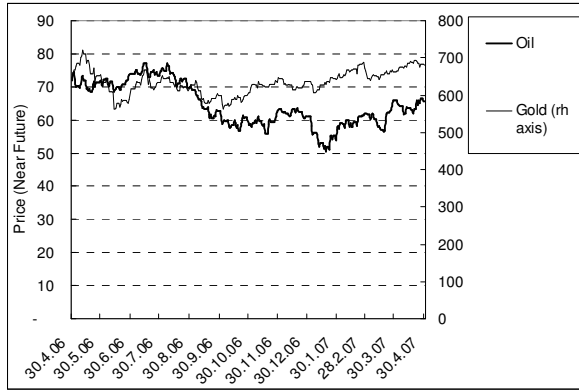
Prices

Oil prices rose again. Despite the freeing of the British sailors from Iran, tensions in the Middle East remained high, and a troubled election in Nigeria threatened oil supplies from there.

Gold is still behaving like a safe-haven asset and prices crept upwards again to over \$680.

However, the market's focus no longer appears to be on Oil, so the impact of its recent rise in price was not felt elsewhere.

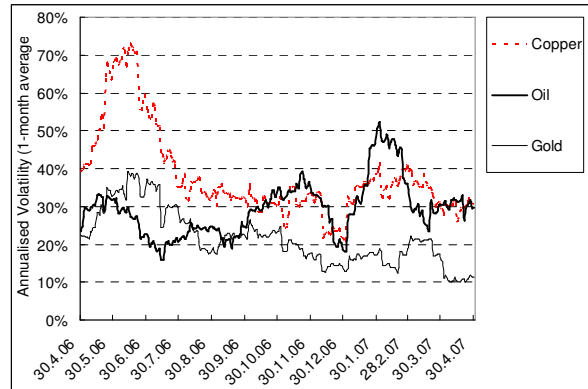
Oil prices rose again; Gold prices continue rising gently



Volatility

The volatility of commodities actually remained low during April as price rises were orderly. In fact Gold volatility actually hit a new 12-month low of 10.1%.

Volatility levels for major commodities are below 12-month average levels

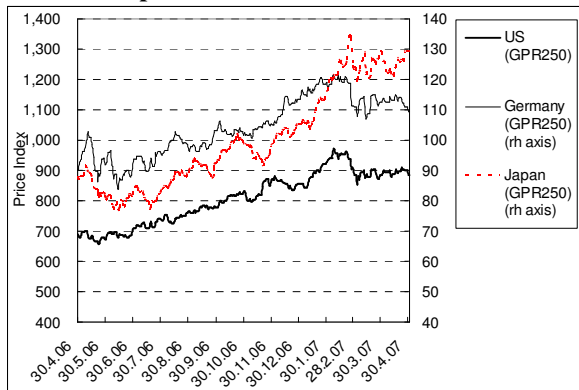


Real Estate (Real Estate Share Prices)

Prices

Property share prices have stayed relatively flat since a drop in mid-February, following strong runs before that. The same pattern is seen in the US, Europe and Japan: showing high correlations between the different markets. The recent weakness in US residential property data may finally have dented the listed property market.

Real Estate prices have been flat for two months

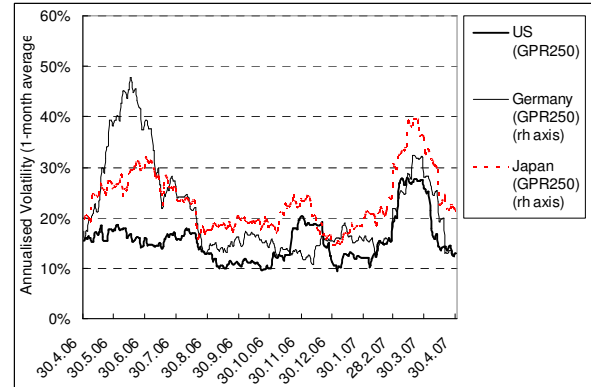


Volatility

Prices were volatile during March, but as with many other asset classes, volatility dropped back

towards the low end of the 12-month range during April.

Real Estate volatility levels returned to the low end of the 12-month range



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 good data is available. This is usually consistent with funds which tend to invest in property indirectly, e.g. via REIT's.

Notes

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 1st May 2007 and the commentary was written on or before 2nd May 2007.

Disclaimer

The commentary does not constitute and is not intended to constitute investment advice.

Any views expressed in this report are based on historical market data and as such cannot be interpreted as being forward-looking, or to constitute forecasts. Past movements are not necessarily indicative of future movements.

Employees of IRML may hold positions in securities mentioned.

All expressions of opinion reflect the judgment of IRML at this date and are subject to change. Information has been obtained from sources considered reliable, but we do not guarantee that the report is accurate or complete.

This document is not for US clients or distribution to the US.

© Independent Risk Monitoring Ltd - 2007

This document is the property of Independent Risk Monitoring and should not be copied or distributed to any third party without the prior consent of Independent Risk Monitoring Limited – please contact us re distribution rights.