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## Thriller

Following the recent sell off in government bonds and renewed concerns about US sub-prime mortgage debt, can investors relax over the summer break or will they have sleepless nights worrying about their portfolios? In this issue of *Fundamentals*, James Carrick, Investment Strategist at LGIM, argues that the outlook for the global economy remains good. But we are in historically dangerous territory for markets. And with debt starting to rise faster than profits, we prefer equities over credit, large caps over small caps, resources over financials and growth stocks over high dividend payers.

“It’s close to midnight and something evil’s lurking in the dark... Under the moonlight, you see a sight that almost stops your heart”. In spite of the latest market activity, I don’t believe investors need to fear an invasion of Zombie-like creatures that appeared in Michael Jackson’s Thriller video. But in recent weeks, the bears have come out in force. Their roar gets louder each time another hedge fund loses money on US sub-prime mortgage debt. The broader credit market has begun to fear a contagion effect as loss-making funds are forced to sell illiquid assets. Some equity investors are concerned that a combination of higher

government bond yields (Figure 1) and wider credit spreads will reduce the ability of firms to increase leverage and buy back shares.

Rather than getting caught up in emotional debates about whether investors have been too short sighted in buying NINJA (no income, no job, no assets) mortgages or the complications of pricing illiquid CDOs (collateralised debt obligations), we’ve taken a big picture view of the world by attempting to answer two questions. What’s the outlook for the overall economy? And what is likely to happen to financial

GLOBAL BOND CONDITIONS HAVE BECOME ‘TIGHT’

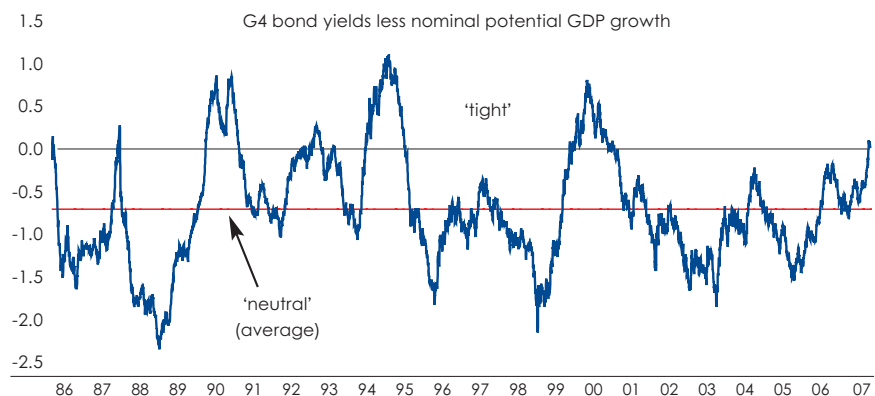


Figure 1

Source: LGIM, Reuters Ecowin

THE RISK-FREE COST OF CAPITAL IS NOW ABOVE THE LONG-RUN RATE OF RETURN

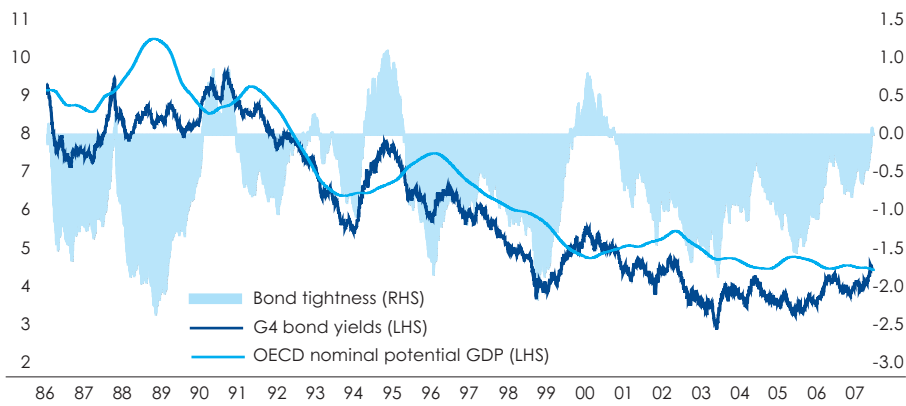


Figure 2

Source: LGIM, Reuters Ecowin

markets? We conclude that the global economy should remain solid, with growth at or slightly above trend. But higher interest rates mean investors need to be more careful than before as we are in an environment where markets have historically become more turbulent. We still see opportunities in the market and consider ways for investors to ‘beat it’ in more ‘dangerous’ times.

Higher rates

The Federal Reserve and the European Central Bank (ECB) have both described monetary policy as being accommodative in recent years. What does that mean? According to the dictionary it can mean to create a comfortable environment. But interestingly another definition is to lend money to someone. We would argue that the past few years have been a comfortable time to borrow money and invest it in financial markets. The economy has grown at a healthy pace. Resource utilisation has been low, meaning production costs such as labour have been relatively inexpensive. And money has also been cheap. So it has been easy to make decent returns, whatever you bought - equities, corporate credit, emerging market debt, property, commodities, even fine wine and art!

But times are changing. Financial markets have given up expecting the Federal Reserve to cut interest rates and have also accepted that the Bank of England and the ECB will raise rates further. This has caused a global sell off in bonds. Our

measure of G4 bond yields, which combines yields in the US, euro area, UK and Japan rose by 50bp from the start of May to the start of June, from 4.1% to 4.6%. Not only is this a five-year high, but it is also above our estimate of potential nominal GDP growth in the whole of the OECD. This is important because it suggests the long-run cost of capital is above the economy’s long-run rate of return, suggesting bond yields are no longer accommodative, but ‘tight’. The last time this happened was late 1999 and the start of 1994 (Figure 2). Both times were followed by a broad based global economic slowdown.

Growth outlook

So does that mean that we should fear a recession in 2008? No. While there is a reasonable relationship between bond conditions (lagged by a year) and economic activity, we get a better fit if we include another variable, credit spreads.

This is because the markets’ willingness to lend - the risk premium - affects the cost of finance for companies and individuals and their willingness to invest. For example between 2001 and 2002, central banks slashed interest rates but economic activity remained subdued as credit spreads remained high reflecting the poor state of corporate balance sheets. Similarly, US home sales continued to fall in the 1st half of 2007, despite bond yields being (until most recently) lower than last summer as default fears encouraged banks to tighten their lending standards.

We illustrate this relationship in Figure 3. The blue line on the left-hand scale shows real OECD economic growth. This is currently running at 2.7%, slightly above its trend rate of 2.3%. The red line represents bond market conditions (standard deviations away from normal, on the right-hand scale). These are currently one standard deviation ‘tighter’ than normal. This is consistent with OECD growth slowing to a below trend of 1.5% in 2008. But you can see that between 2001-2004, bond conditions overestimated global growth. This is because risk premiums were high. If we combine credit spreads with bond yields we get a better predictor of OECD growth (dotted blue line on the right-hand scale). There’s no need to strain your eyes too much, our statistics package has worked out the correlations. The more reliable combined bond-and-credit conditions predictor suggests OECD growth will remain trend like in 2008.

BOND AND CREDIT CONDITIONS AND ECONOMIC GROWTH

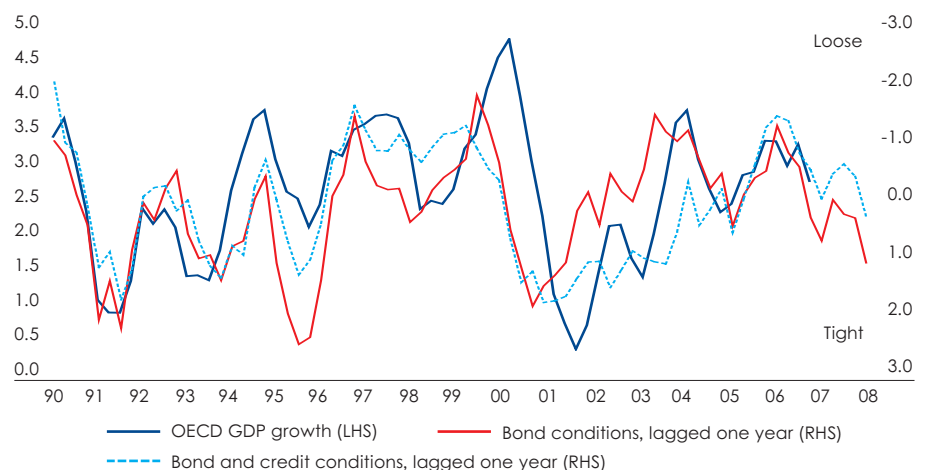


Figure 3

Source: LGIM, Reuters Ecowin

EMERGING MARKETS HAVE NEVER BEEN SO BUOYANT

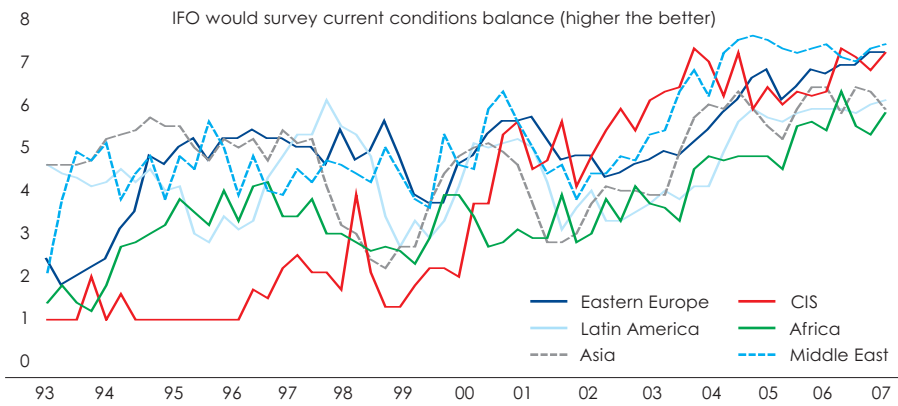


Figure 4

Source: LGIM, Reuters Ecwin

So if bond yields remain unchanged as central banks fulfil current market expectations for rates over the next year and credit spreads remain unchanged, the global economy should remain fine. There are two risks, which in our view broadly offset each other. The first is that credit spreads widen, making it more difficult for firms and households to raise money. The second is that emerging markets remain robust, boosting activity in the OECD, keeping growth slightly above trend.

Emerging markets

Our analysis is based on developed economies (OECD). But as we pointed out in our May Fundamentals ('Global Warming'), emerging markets are booming. Although financial conditions have got tighter in the developed world, they have got looser in emerging markets as their bond spreads have narrowed. This has allowed global trade to hold up despite a weaker US economy. This stands in stark contrast to the previous decade when we saw the Soviet Union disintegrate in 1991, Chinese, Mexican and Thai currency crises in 1993, 1994 and 1997 respectively and more problems with Russia in 1998. So emerging market economic activity has never been so strong (Figure 4). With a few exceptions (Eastern Europe), emerging markets' finances look stronger than before - they are now running current account surpluses rather than deficits - so arguably their strong growth is more sustainable.

Turbulence

Buoyant emerging markets therefore pose upside risks to OECD growth, profits and market returns over the next year. But we need to consider the downside risks. Household and corporate debt has risen rapidly in recent years in the OECD so economies might be more sensitive to higher rates than before. We've already seen problems with US sub-prime mortgage debt. Moreover, the current level of interest rates is historically consistent with financial market turbulence.

In Figure 5, we plot our measure of bond market tightness against global stock market returns. Whenever bond conditions have got tight in the past, we've tended to see a correction in financial markets. For example, our measure of bond market conditions went tight on 29 September 1987, almost a month before Wall Street crashed on 19 October. It also highlighted peaks in global stockmarket

WHEN BOND CONDITIONS GET TIGHT, FINANCIAL MARKETS OFTEN COME UNDER PRESSURE

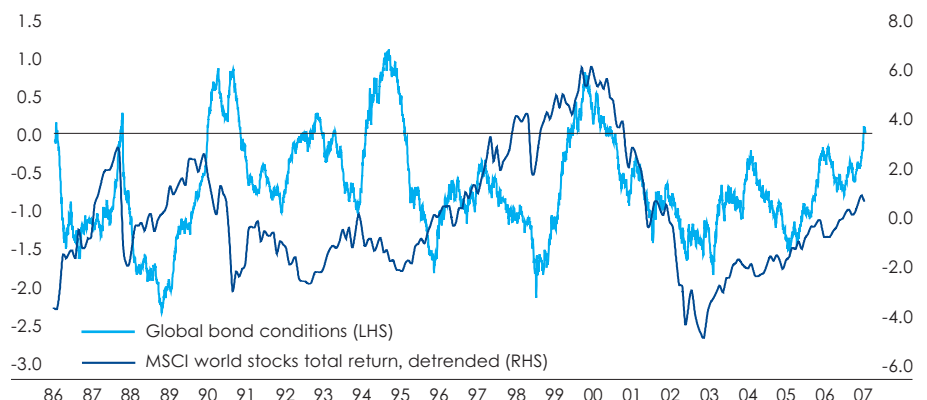


Figure 5

Source: LGIM, Bloomberg

returns in 1990 and 1994. It was a tad premature in predicting the end of the tech bubble collapse and gave the wrong signal in 1992, but generally it appears to be a useful indicator.

Market risks

If we were to see a market event, we believe it is more likely to happen in the credit space than the equity space. There are two reasons for this. First, equity valuations seem much better than those for credit. While credit spreads are extremely tight, long-term equity earnings forecasts and forward P/E ratios are historically low. Second, the conditions for credit are deteriorating relative to equities as we enter an environment of higher risk-free rates, slower profitability and increased debt issuance.

US corporate debt issuance is currently rising by just less than 10% per year. At the same time, the trend rate of whole-economy profits growth has fallen below a double digit pace. This means that the debt-to-profits ratio has started to rise for the first time since 2002. This is important because this ratio is the key driver of corporate credit spreads (Figure 6).

We think this trend is likely to continue, not least because we could move from a virtuous cycle to a vicious one. Wider credit spreads hurt economic growth, which in turn slows profits, which leads to a rise in the debt-to-profits ratio and therefore an increase in credit spreads!

We have modelled this interdependence. If we assume a neutral contribution from emerging economies and no turbulence in financial markets, we see BAA credit spreads (the lowest investment grade in Moody’s ratings) widening by 10% as debt growth outstrips profits. We see profits growth slowing to low single digits as economic activity moderates in an environment of high resource utilisation. The OECD estimates that the level of economic activity is currently above its long-run average. This is consistent with slower profits growth as scarcity of resources pushes up the price of raw materials, capital goods and labour.

### Relative performance

So the fundamentals for the credit market are deteriorating. We therefore favour equities over corporate debt. Whenever the output gap is rising, equities tend to outperform debt in absolute returns. Given the positive momentum in emerging markets, we don’t see the OECD output gap falling (as growth slips below trend) unless we get a significant widening of credit spreads.

For equity only investors, we consider a more cautious approach than in recent years. With resources becoming scarce, profits growth should be lower than before. Within that aggregate number some companies will continue to do well while others could suffer negative returns. So volatility is likely to rise.

DEBT TO PROFITS RATIO AND CREDIT SPREADS

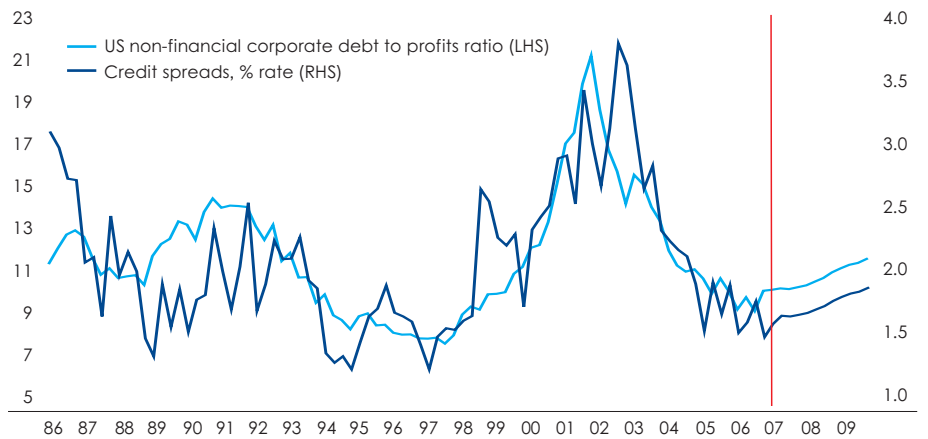


Figure 6

Source: LGIM, Bloomberg

This should favour large cap stocks over small ones. Small cap stocks have already been re-rated because of the possibility of them being bought out by private equity. But rising credit spreads and higher risk-free rates could reduce this bid premium, reversing the seven-year outperformance of small caps.

Within the large cap space, we prefer stocks which benefit from high resource utilisation (miners and investment goods for example) and dislike financials, which disproportionately suffer from higher interest rates and a possible credit event.

Higher risk-free rates should also see ‘growth’ stocks outperform high yielding ones. If investors can get a decent return from holding a government bond, they will only want to buy equities if they have strong long-term growth prospects.

### Summary

We still think the near term prospects for the economy are good. Strong emerging market growth and low credit spreads provide an important offset to higher bond yields. But high resource utilisation means that profits will be harder to come by than in the past, so credit spreads should widen. We therefore prefer equities over credit, large caps over small caps, resources over financials and growth stocks over high dividend payers.

WHEN THE OUTPUT GAP RISES, EQUITIES OUTPERFORM CREDIT

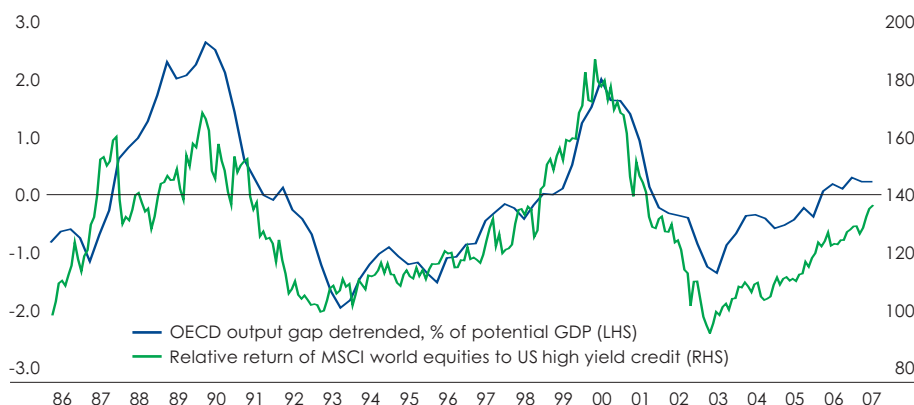


Figure 7

Source: LGIM, Bloomberg

## Market Overview

# Rate expectations

Major equity markets were broadly flat in July as the United States 10 year bond yield reached a five year high, recognition that the Federal Reserve would not ease monetary policy as previously expected. Higher bond yields forced credit spreads wider, as lenders demanded a greater return for their money, putting the large number of leveraged buyouts under pressure.

The Bank of England raised rates in July another 25 bp for the fifth rate rise since August of last year. This coupled with the British economy continuing to strengthen at pace, took the sterling exchange rate to a 26 year high against the dollar. The dollar also fell to new lows against the Euro as solid economic data continued in the euro area.

China's economy grew in the second quarter at the fastest pace in 12 years heightening speculation Chinese demand for fuel will climb. This coupled with stronger demand for crude in the United States pushed the price of Oil up to \$75 a barrel in mid July.

Not all markets were flat through July as Asian markets moved to new highs. Unphased by US credit problems, the Korean stock exchange recorded a massive 13% movement in the first half of July.

## London

### Between a rock and a hard place

The UK equity market retreated by 0.8% in June, but nevertheless posted a respectable 5.8% total return in the first half of the year. The FTSE 100 (+0.1%) significantly outperformed the Mid Cap (-4.8%) and the Small Cap (-3.6%) indices. Supported by rising oil prices and M&A activity, the key outperforming sectors were chemicals, oil and gas, and telecommunications while industry transport, real estate and general retail lagged the latter due to the deterioration in interest rate expectations. ICI received and rejected a bid approach from Akzo. Elsewhere, profit warnings from Northern Rock and Pendragon saw their share prices fall. Whilst we continue to take a positive long term view on the UK equity market, supported by sound fundamentals, appealing valuations and ongoing support from corporate activity, we believe that the risks of a correction in the shorter term have increased.

## Wall Street

### Sub prime hits home

The S&P 500 was down 2% over the period. Markets were impacted by a sharp rise in treasury yields, sub-prime mortgage concerns and rising oil prices.

Bond yields increased as investors gave up on the likelihood of rate cuts this year. The move in yields relates to higher growth expectations. Inflation breakevens have barely budged and incoming inflationary data has been benign.

Economic data has been improving and the economy is expected to expand by at least 3% in the second quarter. Housing remains a drag. Manufacturing activity has rebounded after a liquidation of inventories in the first quarter.

Bear Sterns (investment bank) announced substantial losses on two mortgage related hedge funds. The company has extended \$3bn to keep one of the funds afloat. Wal-Mart announced a \$12bn buyback and a reduction in store growth. Home Depot announced a \$23bn buyback. In the Technology sector Microchip (semiconductors) and Molex (connectors) triggered concerns as both companies missed their quarterly estimates.

Looking ahead we see that while the market may pause for breath ahead of Q2 earnings, the backdrop remains favourable for equities. Yields are not yet restrictive and inflation is coming down. Valuations, buybacks and M&A remain supporting factors for the market.

MAJOR EQUITY MARKETS – TOTAL RETURNS £ 2006/2007

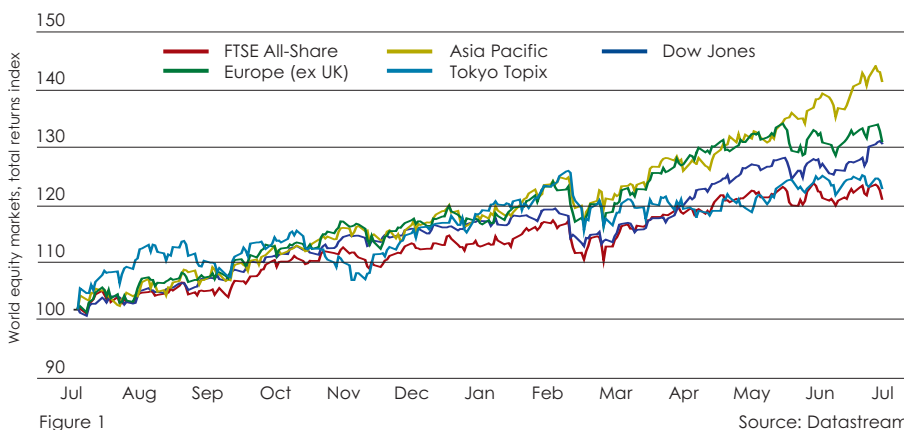
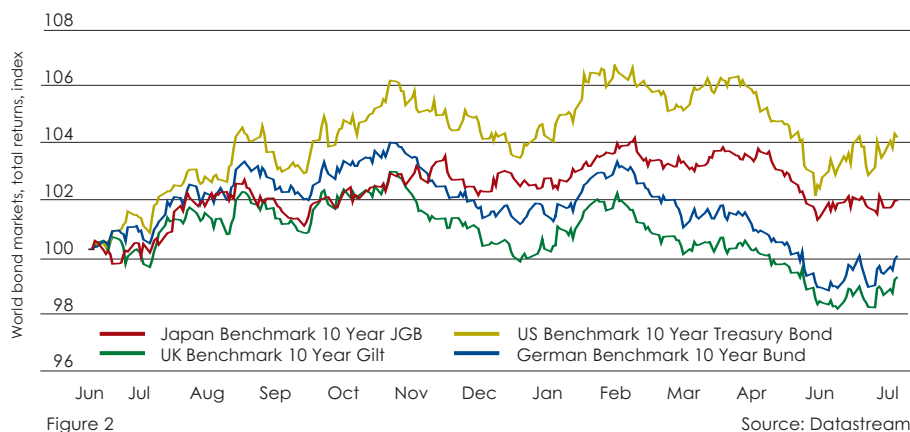


Figure 1

Source: Datastream

## MAJOR WORLD BOND MARKETS – TOTAL RETURNS £ 2006/2007



## Europe

### North and south

European markets have sustained their strength into the summer season, led by the German market, which is now up in excess of 20% for the year. This is in spite of the progressive increase in interest rates by the European Central Bank, as it seeks to choke off incipient inflationary pressure. Such tightening of monetary policy has been negative for those countries where rapid growth in mortgage lending and property prices has fuelled economic expansion, such as Ireland and Spain. In northern Europe, on the other hand, the strength of demand both domestically and overseas for capital goods, as well as healthy domestic consumption, has seen earnings growth for companies accelerate in the first half. Whilst this may not be sustainable at the same rate into the second half of the year, the outlook for corporate earnings remains strong.

Having risen so far it would not be surprising if markets paused for breath during the summer. However, as we enter the second quarter earnings season it is likely there will be increased stock-specific volatility, as positive or negative earnings surprises have a disproportionate effect during this time of seasonally low volumes. In the light of the markets' recent strength it seems, on balance, as if there is the chance for more disappointment than upside surprises, leading to some potential weakness. If this does transpire, it is unlikely that any weakness would endure, owing to the still-powerful combination of strong economic growth and lowly-valued stocks, external shocks notwithstanding. We remain bullish on the longer term outlook for equities.

## Japan

### Eco-friendly cars help autos

Japanese equities continue to edge higher. So far there has been little impact from the US sub-prime fall-out on exports. With oil prices remaining high, the Japanese auto companies continue to take market share, given the strong demand for their more fuel efficient and environmentally friendly vehicles. Asian demand continues to boom, driving higher the share prices of Japanese companies geared into infrastructure and construction, the current weakness of the Yen adding a further competitive advantage. Domestically although companies remain upbeat, consumer confidence remains fragile as individuals worry about the rising cost of living versus weak wage growth. Political uncertainty is currently a feature of the market with an election looming later in July. Prime Minister Abe's popularity has been waning and a large loss for the ruling Liberal Democrat Party could see him stepping down to make way for a new Prime Minister.

## Pacific Basin

### Chinese punters able to spread bets

In June the FTSE AW Asia Pacific ended the month up 2.5% in sterling terms. The leading countries were FTSE W China, up 9.2%, and FTSE W Taiwan, rising 8.2%. The China H shares were supported by a further announcement on QDII (Qualified Domestic Institutional Investor) which added domestic mutual funds and securities houses to the list of domestic Chinese institutions that are to be allowed to invest overseas. This change is intended to allow increased diversification by these domestic institutions and also to relieve pressure on the domestic stock market where high demand for the shares available has led to rapid rises and excessive valuations. In the near term the practical effect of this rule change will be that Chinese domestic investors will have a route to invest in Hong Kong listed China H shares where they will be able to buy into the dual listed shares at substantial discount to the prices on the domestic A share markets.

In Taiwan, the improving outlook for global growth attracted investors to its cyclical and dominant IT sector pushing the market higher. The central bank's action to raise its benchmark interest rate by 25 bps to 3.125% also led to gains in some sectors. The government's motive was to address inflationary concerns given buoyant domestic liquidity and also to support the currency. Malaysia was the laggard market hurt by a fall in the Malaysian Ringgit relative to sterling.

Asian stock markets have had a strong first half to 2007, with the FTSE AW Asia Pacific Ex Japan rising 14.6% in sterling terms. Although we expect further gains to year end driven by good earnings momentum, Chinese economic strength and participation by domestic investors—markets could be vulnerable to near term profit taking during the summer months. The spike in the US 10 year yields has raised concerns over whether there could be a pass through impact to Asian equity markets, particularly since short and long rates in Asia have generally increased during the past month.

# Snapshot

## US housing market – up or down?

At the start of the year, the US housing market appeared to be recovering. Mortgage applications actually bottomed out last July (coinciding with the peak of US government bond yields) but started to rise again by the end of 2006. With a short lag, existing home sales followed suit, jumping in January and February. But since then the data have diverged. Timely mortgage applications data – regarded as a useful lead indicator of the housing market – have improved further, while existing and new home sales have continued to decline (Figure 1).

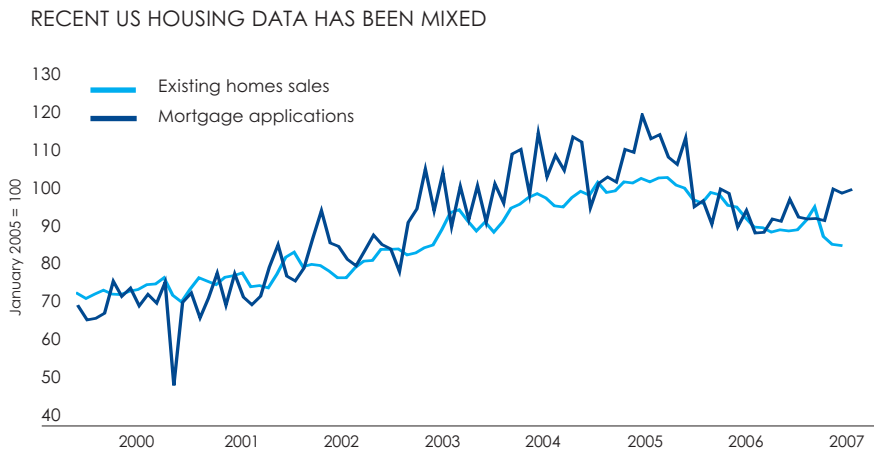


Figure 1

Source: Reuters, Ecwin

The divergence between mortgage applications and home sales has occurred at the same time as banks have tightened their lending criteria after experiencing a large rise in sub-prime mortgage defaults in first quarter 2007 (Figure 2). And we think tighter lending standards mean that mortgage applications data exaggerate the true picture for housing demand.

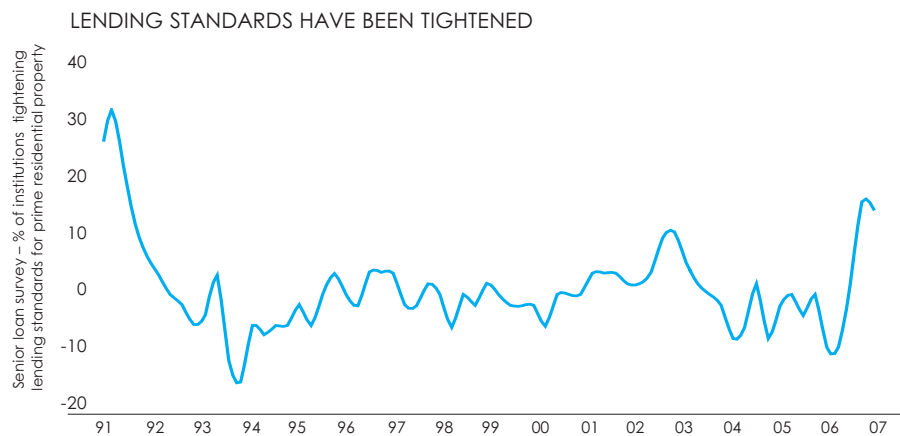


Figure 2

Source: Reuters, Ecwin

The reason for this is that even in a good year (the latest available data are for 2005) only 52% of mortgage applications submitted were originated. If it was a toss-of-a-coin chance whether your mortgage loan application would be approved when lending standards were loose, it's fair to say the odds of securing a loan now is a lot lower. So with lenders getting tougher, borrowers have been forced to make multiple applications to different lenders to get accepted.

To make matters worse for the housing market, the resilience of the rest of the economy caused bond yields to jump over 50bp between May and June. So not only are lending standards tough, but interest rates are also as high as they were a year ago. This explains why homebuilder confidence has continued to decline, hitting a 16-year low in June. An excess supply of unsold homes increases the risk that house prices continue to fall in 2007, which in turn can lead to an increase in foreclosure rates and cause further problems for investors in mortgage bonds.

## Views Commentary

## Dollar weakness

	Price Inflation (RPIX)		GDP (Growth)		Earnings (Growth)		10 Yr Gilt Yields		Base Rates		\$/£		£/Euro		FTSE 100
	End 2007	End 2008	End 2007	End 2008	End 2007	End 2008	End 2007	End 2008	End 2007	End 2008	End 2007	End 2008	End 2007	End 2008	End 2007
ABN Amro	3.00	3.00	3.00	2.70	6.50	7.00	5.55	-	6.00	6.00	2.11	2.13	0.67	0.68	7000
Citigroup Smith Barney	-	-	3.00	2.90	6.70	7.60	5.72	5.70	6.00	5.75	2.04	1.99	0.67	0.68	6800
CSFB	2.80	2.60	2.90	2.90	-	-	5.45	5.25	5.75	5.75	1.95	1.93	0.69	0.70	6800
Deutsche Bank	2.40	1.90	2.90	2.20	6.30	7.60	5.70	5.75	5.85	5.75	1.93	1.90	0.70	0.73	6900
Goldman Sachs	2.50	2.60	2.90	2.70	5.60	9.20	5.20	5.00	5.75	5.50	2.00	2.00	0.68	0.70	6833
HSBC Securities	2.50	2.20	2.30	1.90	7.00	6.00	5.40	5.30	6.00	5.75	1.98	1.83	0.71	0.74	7000
JPMorgan	2.50	-	2.80	2.40	-	-	-	-	-	-	-	-	-	-	-
L&G Investment Management	2.70	2.50	2.90	2.60	8.00	8.00	5.40	5.30	6.00	6.00	2.00	2.00	0.69	0.69	6750-6850*
Merrill Lynch	3.20	2.70	2.80	2.30	6.00	8.50	4.60	-	5.75	5.25	1.97	1.82	0.69	0.71	6860
Morgan Stanley	3.10	2.50	2.40	2.20	6.00	6.00	5.30	5.30	5.50	5.25	1.94	1.82	0.68	0.68	6550
UBS	3.10	3.00	2.90	2.40	6.20	7.90	5.50	5.55	5.75	5.50	1.93	1.88	0.70	0.71	7000
Median (ex L&G Inv Mgt)	2.80	2.60	2.90	2.40	6.25	7.60	5.45	5.30	5.75	5.75	1.97	1.90	0.69	0.70	6860
Last Month	2.60	2.70	2.75	2.65	6.00	7.35	5.25	5.25	5.75	5.50	1.95	1.89	0.69	0.70	6800
Actual end :															
2006		3.80	3.00		12.20		4.74		5.00		1.96		0.67		6220
2005		2.00	2.00		22.70		4.10		4.25		1.72		0.69		5618
2004		2.50	2.60		6.71		4.53		4.75		1.92		0.71		4814

KEY Median figures indicate change over previous month 0.00 increase 0.00 decrease 0.00 no change

\*This is our estimate of fair value at end 2007, not a point forecast.

Respondents to our survey this month have raised their forecast for the base rate in 2008 by 25 bp on expectations of continued strength in the UK economy.

For the second month in a row the dollar/sterling rate has been raised in response to the stronger economic outlook in the UK and sub prime mortgage issues in the US.

Respondents this month see stronger earnings growth continuing through to 2008, compared with last month's figures, suggesting the consensus is becoming more confident as we enter into second quarter earnings season.

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