

Opportunity of a lifetime?

Corporate bonds were shunned last year as large, high profile companies collapsed and the global financial system went into meltdown. Indeed, the credit crisis was even named after the asset class. However, in January, institutional and retail investors have poured money back into credit markets, attracted by historically high yields in an environment of volatile equity markets and ultra-low deposit rates. In this edition of Fundamentals LGIM's credit strategist, Ben Bennett, examines the market, explains the key risks ahead and identifies the stellar opportunities which credit markets currently offer long-term investors.

Asset class of choice

Investors are currently faced with some important asset allocation decisions. Amidst volatile markets, some investors have sought out the safety of government bonds. However, with yields currently at historical lows they offer very little source of potential returns. At the other end of the spectrum, investors are dipping their toes back into equity markets, hoping that markets have troughed. This

approach, however, will more than likely be coupled with high volatility and uncertain dividend payments. But, the most popular choice at the start of 2009 has been a middle ground between the two: investing in corporate bonds. It is perhaps surprising that there has been a substantial inflow of money into corporate bonds in an environment of slowing economic growth and shrinking company profits. However, the combination of extremely low

valuations, a steady yield via interest payments and price volatility that normally lies somewhat below what is experienced in equity markets, has recently led investors back to corporate bonds. Figure 1 shows the respective yields available within these different asset classes and highlights just how dramatic the shift in the relative value of corporate bonds has been during the latter part of 2008. Nonetheless, corporate bonds are not



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without risk. Further corporate failures seem inevitable, which will affect corporate bond yields, and potentially reduce the asset class returns. However, some simple mathematics helps quantify this risk and underlines just how attractive the corporate bond market remains despite the likelihood of further defaults.

Take the Barclays Sterling investment grade corporate bond index, for example. 'Investment grade' means bonds rated BBB- or higher. These bonds have a relatively small chance of default when compared to the 'speculative grade' index which has ratings BB+ and below. Currently, the average yield of the investment grade index is around 5% higher than the Government bond yield. Assuming you are a long-term investor, who is relatively indifferent about price volatility or liquidity in the near-term, your decision boils down to whether you believe the extra 5% yield is enough compensation for the annual losses which you absorb via index constituents defaulting (companies declaring themselves bankrupt and therefore stopping bond interest payments).

History suggests that the current level of compensation for an investment grade portfolio is extraordinary. Even in the teeth of the early 1990s recession, the cumulative defaults over a five year period for investment grade corporate bonds was only 2.4%. It would take just six months of today's extra yield to have compensated investors for five year's worth of defaults.

To underline the market's value further, this 2.4% default rate does not even take into account the value of the bond after it defaults. This can be around 30-40% of its notional value as bond holders have more senior claims on company assets than, say, equity holders. Therefore, ultimate losses would have been far lower than 2.4%.

Indeed, investment grade defaults are so rare that to graphically illustrate the relationship between defaults and yields, it is more enlightening to plot the excess yield versus annual speculative grade defaults, which tend to occur more frequently and therefore provide a better time series (Figure 2). Note that US data has been used as it has a far longer history than UK data and it therefore illustrates patterns over previous cycles.

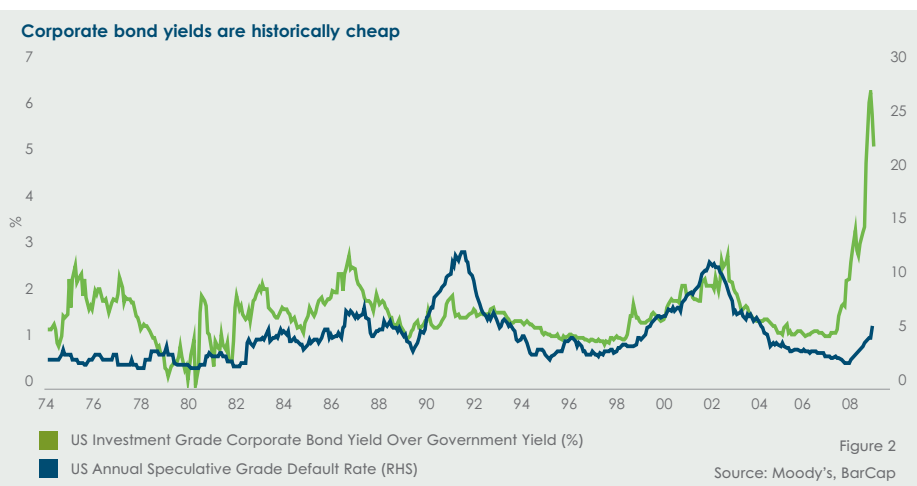
So far, we have been looking at average corporate bond yields and defaults across

the corporate bond market as a whole. While these yields are very attractive to long-term investors, price action suggests that over the short-term there is considerable differentiation between the various bonds within the market. Figure 3 plots the price dispersion of constituent bonds of the Barclays Sterling investment grade corporate bond index.

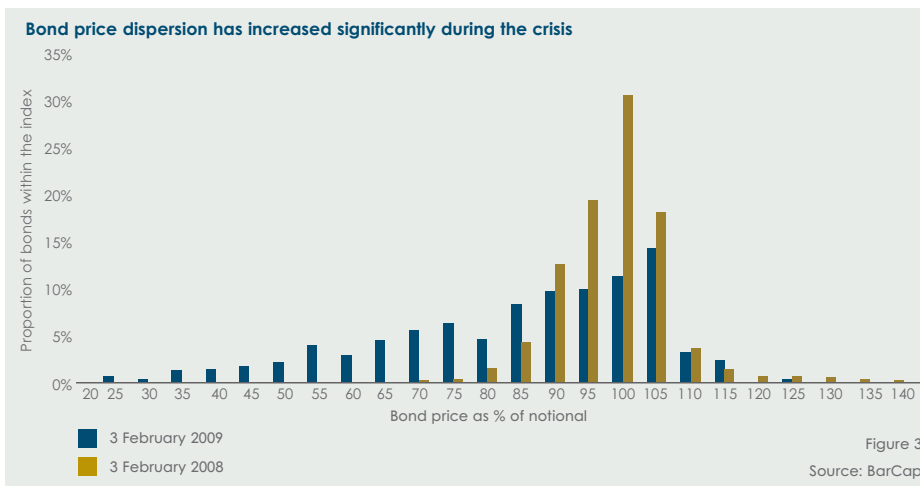
If there has not been a default, a bond will pay out 100% of its notional value at maturity, and therefore prices tend to concentrate around 100%, unless default risk significantly increases. One year ago, bond prices were indeed grouped around 100%, with a very small proportion of bonds priced below 90%. Fast forward a year and the price dispersion looks very different indeed. There are still a reasonable proportion of bonds priced around 100%, but there is a very long tail of prices, going all the way down to 20%. This clearly demonstrates that the notional value of an average bond and an average default rate is quite false. Some bonds trade normally (i.e. close to 100%), while others trade at very distressed levels.

Which bonds are distressed?

The important question is which bonds does the market believe carry the greatest chance of default and why? Figure 4 helps to answer this question, plotting the total returns for 2008 across various industry sectors within the index. The first thing to note is that the dispersion observed from looking at individual



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bond prices is replicated here by looking at total returns by sector. The second thing is that non-cyclical sectors (energy, utility etc) are the ones that outperformed, while cyclical sectors dramatically underperformed.

This dispersion plays havoc with the yield versus default calculation we described earlier. For example, the average excess yield for a basic industry bond over Government yields is around 6%, which continues to look extremely attractive. For an average utility, on the other hand, this excess yield drops to around 2.5%. This is still attractive versus historical levels, but there is no getting away from the fact that it is only half of the average index excess yield (5%).

Why things turn sour

Initially, the reaction to the credit crunch and the liquidity crisis following Lehman Brothers' default was for all corporate bond prices to drop indiscriminately as the market shunned all risky assets. Subsequent easing of liquidity concerns has led to a return of confidence and some semblance of normality returning to the corporate bond market. New bonds are being sold by companies and the secondary market has resumed activity. However, the deteriorating economic backdrop has led to worsening credit quality. This is illustrated by figure 5, which shows rating downgrades versus upgrades. The market is pricing in a continuation of this deteriorating trend in the coming months as more and more corporates suffer downgrades.

By definition, cyclical corporates (those whose profits are tied closely to the economic cycle) feel the economic downturn far harder than non-cyclical corporates. Given the nature of the current crisis, it is also no surprise to see the credit quality of financials also deteriorate at a significant pace. This marries nicely to the relative performance of sectors seen in figure 4. However, it does not explain why the extent of the differentiation has been quite so severe: non-cyclical names that the market likes are trading very strongly, while cyclical names that the market dislikes have almost been cut adrift.

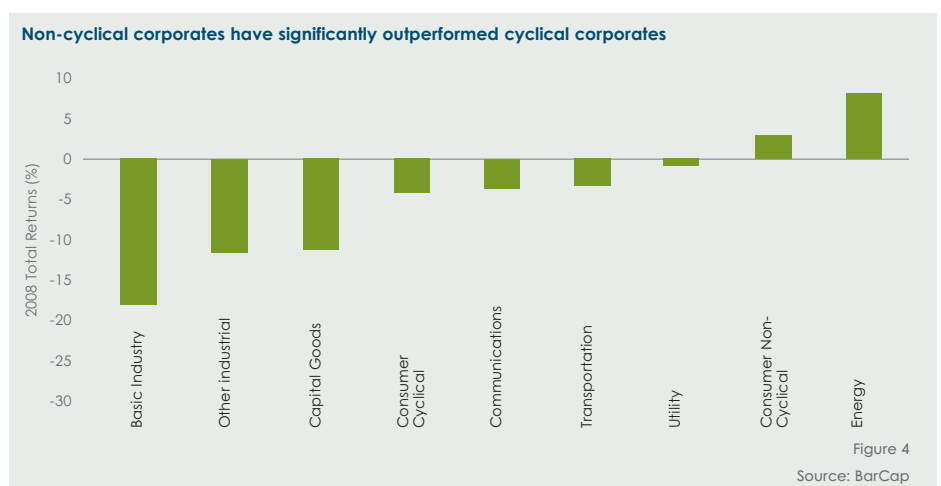
Why are some bonds so unloved?

Before the recent crisis, bonds that were trading at very low prices usually did so because there was a fear of a near-term default. It is important to avoid defaults, of course, but as discussed earlier, such events are rare occurrences within an

investment grade portfolio. The current weakness of certain bonds is actually more driven by 'fallen angel risk'. This is the name given to a bond that is downgraded from BBB (investment grade) to BB (speculative grade).

Fallen angels

The vast majority of corporate bond funds in Europe buy investment grade debt. In comparison, the demand base for speculative grade credit is very small indeed. To put numbers on this, the Barclays Sterling investment grade corporate bond index has a market value of about £200bn, while the equivalent speculative grade index has a market value closer to £10bn. The transition from investment to speculative grade can therefore be very painful, with many more sellers (particularly those forced to sell by their mandates) than buyers. Price action, particularly in the current market where risk aversion is still elevated, can be brutal. An extreme example is the downgrading of a number of hybrid bonds issued by the Royal Bank of Scotland (RBS) to speculative grade in January, which led to the bonds trading below 10% of their notional value (these hybrid bonds have some equity like features, such as deferrable coupons. RBS senior debt remains comfortably within the investment grade universe). In addition, similar bonds from related issuers that were still investment grade fell 50% or more in price in a matter of days as the risk that they would be downgraded to speculative grade, i.e. fallen angel risk, spiked.



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Portfolio Impact

During the last recession in 2001/2 the proportion of BBB credits being downgraded to speculative grade peaked at an annual rate of nearly 15%. This time around, it could be even higher if the economic backdrop deteriorates as anticipated. Clearly, by avoiding these fallen angels, it is possible for an investor to achieve even greater returns. If, as was the case with the recent banking crisis, an entire sector is tarnished at the same time, the relative holdings of the sector in question can make or break performance.

Risk concentration

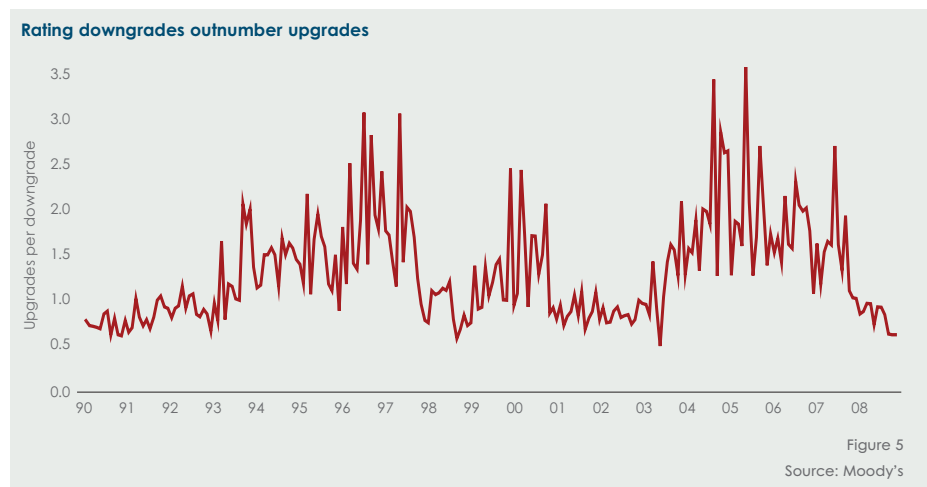
The pricing of the corporate bond market suggests that market participants are factoring in elevated fallen angel risk in certain sectors. Figure 6 splits the various sectors of the Sterling corporate bond index into high, medium and low fallen angel risk, together with their relative sizes. There is obviously a significant correlation between this risk concentration and the relative performance of sectors as demonstrated by figure 4. In other words, cheap sectors are cheap because there is high fallen angel risk associated with them.

How to trade this risk

By investing only in the ‘cheap’ sectors of the corporate bond market, investors are likely to take on a considerable amount of fallen angel risk. Experience suggests that the extent to which prices can fall if a bond actually becomes a fallen angel, means this may be a high risk strategy. On the other hand, selecting bonds from sectors with low fallen angel risk leads to a portfolio with a lower yield than the average yield of the corporate bond universe.

The large dispersion within the marketplace builds the cases for greater diversification and/or diligent active management – depending on the time horizon and risk appetite of an investor.

To maximise investment opportunities within credit markets, investors may need to look beyond the sterling credit market. For investors willing to allocate a portion of their



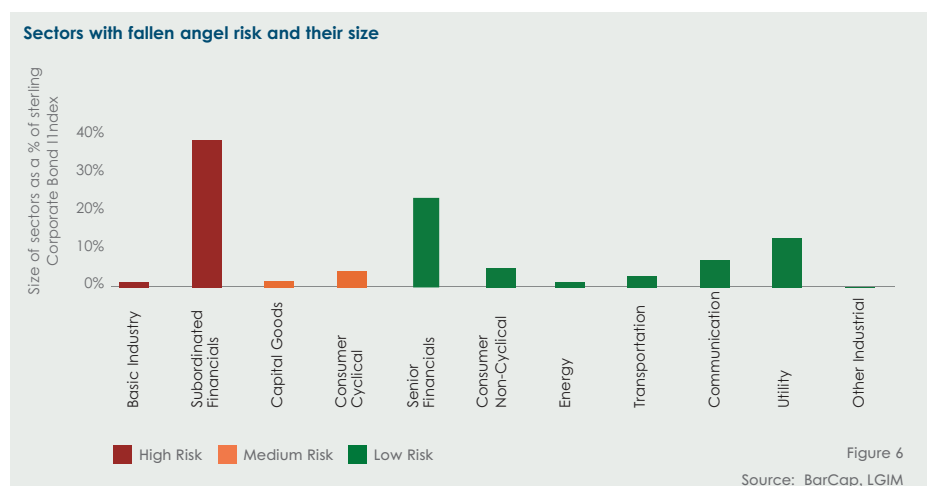
assets globally, the US dollar and euro credit markets hold a wider selection of securities to choose from, and allocating a proportion towards these markets (passively/actively) may help produce superior long-term returns.

Seeking even greater returns, a large and experienced investment manager can attempt to avoid fallen angels while also trying to extract the greatest returns which the market has to offer. To achieve this, they would ideally aim to have a base portfolio of the safer, non-cyclical names with low fallen angel risk. Extra yield could then be added by maintaining a specifically selected portfolio of cyclical names which the investment manager believes will retain investment grade status, despite the market pricing in high fallen angel risk. To be successful, it is necessary for the active manager to have exceptional credit analysis and research capability and good access to liquidity.

Bottom line

The current corporate bond market has significant price dispersion. But the cheap bonds are cheap for a reason, with the coming months looking set to witness an unusually high number of fallen angels and associated brutal price action. However, the outlook for the corporate bond market as a whole for long-term investors is exceptional by historical standards. With an additional 5% yield over government bonds, an index of investment grade corporate bonds represents a significant investment opportunity – one which hasn't been seen since the 1930s.

Furthermore, by avoiding fallen angels while partaking in the spread that is associated with this risk, active corporate bond fund managers who successfully buy riskier bonds while maintaining a strict approach to risk management, could produce significant excess returns in 2009.



Market Overview

2009 is likely to be the first time the global economy goes into reverse since we began keeping records. While previous recessions have been regional or country specific, as we've become more closely tied through trade and capital flows, economic weakness has rapidly spilled across borders. When the US, UK and European economies began to weaken last year, most economists believed the global economy would continue to be supported by rapid growth from the developing economies of Asia, South America, Russia and the Middle East.

However, as the credit crisis worsened and the developed world ground to a halt, commodity prices collapsed, the oil price slumped and a lack of availability of trade finance caused global trade to freeze. This has had severe consequences for major exporters across Asia and South America and the oil producers in the Middle East and Russia. As a result, despite China being forecast to expand some 5 or 6% during 2009 (roughly half the growth it experienced in 2008), world GDP as a whole is expected to dip into negative territory this year followed by a gradual recovery in 2010.

Equity Overview

▶ UK

Earning less

Over the past 18 months the UK equity market has been driven by a slowing domestic economy which has dominated the relative performance between sectors and companies. However, the global nature of the more recent slow down in economic activity, particularly in emerging markets, has broadened this risk out to other areas of the market. We expect earnings to decline significantly in 2009 and consensus estimates are finally starting the slow process of reflecting negative earnings growth this year, although this process certainly has further to go.

One key area of risk is the level of dividends the market will generate in 2009. The market historically has been dominated by banks and oil companies, however banks are now a much smaller share of the index and they have cut their dividends. The lower oil price has increased risks of dividend cuts for the oil companies therefore the overall payout for UK equities could potentially fall fairly significantly.

▶ US

Bumpy ride to recovery

The Government and Federal Reserve (Fed) are continuing to use every means at their disposal to boost the financial system. This has put the US ahead of some other regions in terms of easing of policy, which will eventually support some form of economic recovery.

However the global economic slow down which has now taken hold will continue to act as a big drag on US corporate earnings – consensus estimates of US earnings still need to be revised down significantly. Investors are firmly focused on any suggestion from economic lead indicators that we are indeed approaching the trough in the economic cycle.

However we believe we will not see any form of stabilisation until around the middle of the year which will continue to drive volatility in equity prices.

▶ EUROPE

Inventories pile up

The decline in world trade has had a very significant impact on Europe. For the world's second largest exporter, Germany, as demand has dried up, manufacturing activity has stalled. In the European Union, manufacturing inventories of finished goods are the highest they have been since the early 1990's recession.

Economic data released during the past month has been worse than most market participants and economists expected. Faced with slowing demand, industrial production has collapsed much faster than expected and we currently see the recession lasting through 2009 before an anaemic recovery takes place in 2010.

While slower to act during the initial stages of this global downturn, the European Central Bank (ECB) has aggressively cut official interest rates since October last year. Given how far manufacturing activity has fallen, it appears likely that the ECB will continue to reduce rates and may even undertake 'quantitative easing', i.e. injecting money into the financial system, in order to stimulate growth.

Major Equity Markets – Total Returns £ 2007/2008



Figure 1

Source: Datastream, FTSE indices shown

Equity Overview Contd.

JAPAN

Currency contribution

After declining 42% during 2008, the Japanese equity market (as measured by the Topix index) fell another 7.6% in January. For UK based investors, however these losses have been almost completely offset by the massive devaluation of the sterling against the yen over the same periods.

Both economic and corporate news flow out of Japan remains bleak. The economy shrunk 1.8% (annualised) during the third quarter of last year and sales of automobiles declined 27% in the year to November, the largest contraction in 39 years. In the year to December machine tool orders slumped a massive 71.8% and demand for Japanese goods by foreigners has dried up as the global economy slows. One area of strength amidst this weak backdrop, however, has been convenience stores. Faced with a deteriorating economy, people have been eating out less and that has lead to strong sales growth from stores during December.

ASIA / EMERGING MARKETS

Mixed fortunes

Emerging economies have also been shaken considerably by the global economic downturn. Even China, which expanded more than 10% last year is forecast to halve its output during 2009.

As many of the developing economies throughout Asia are heavily reliant on trade, slowing global demand has sent their exports significantly lower. In Korea, exports recently fell 17% and in Taiwan, they were down 42% during December.

Slowing economic growth has now spread from the developed world, and has started to impact China. The region has been particularly hurt by the dramatic decline in the availability of trade finance and the consequences that has for global trade. As equity market losses mount in the US and Europe, global investors have continued to aggressively reduce their exposure to emerging market regions irrespective of valuation.

While industrial production in China is expected to slow rapidly in coming months as orders for China's goods decline, on the positive front, there is also evidence that bank lending in China is increasing and government initiatives to encourage lending are taking effect.

After suffering large declines during 2008, the major emerging equity markets have had very mixed results during January. Equity market in China and Brazil rose, while the Indian stock market fell around 4% and the Russian RTS index lost 15.3%.

Property Overview

UK commercial property experienced another difficult period during the fourth quarter in 2008. Capital values fell by 14.4%, through a combination of a 1.4% fall in rental values and a large upward shift in property yields; the initial yield on property rose from 5.9% to 6.9% during the December quarter. With short and medium term interest rates falling, the spread between property and bond yields / cash rates rose to even higher levels. The gap between the yields on prime, long-let ('bond') properties and risk free / debt rates now offer a substantial risk premium and are likely to be attractive to a number of investors, e.g. annuity funds with fixed liabilities. Property portfolios which are overweight bond-type assets are likely to outperform over the next 6-12 months; when economic conditions stabilise, there will be value in rotating into more equity-style assets with strong fundamentals which will be unduly penalised by a highly risk-averse investment market.

Commercial property – quarterly total returns

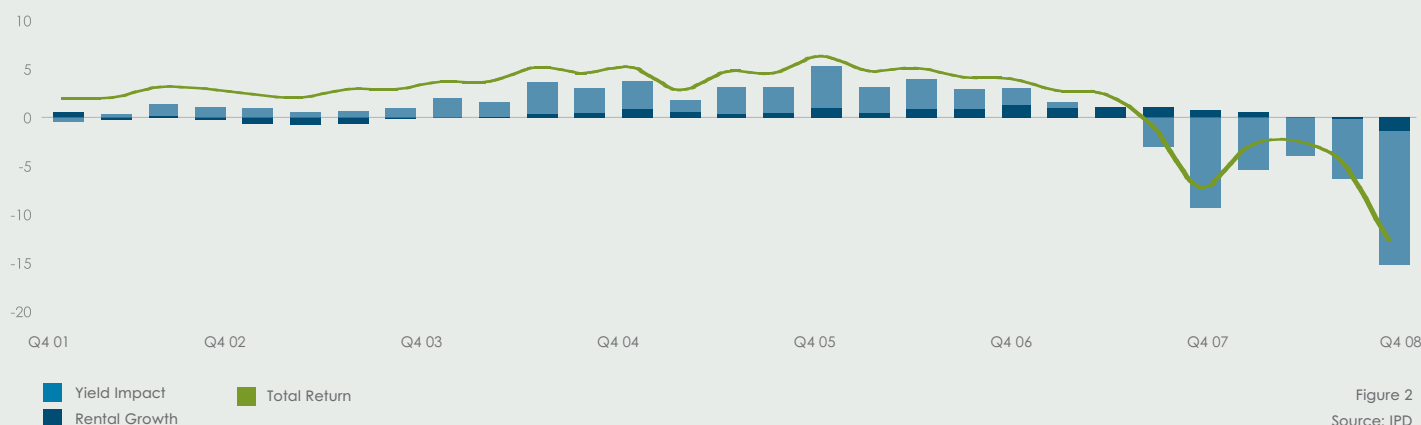


Figure 2
Source: IPD

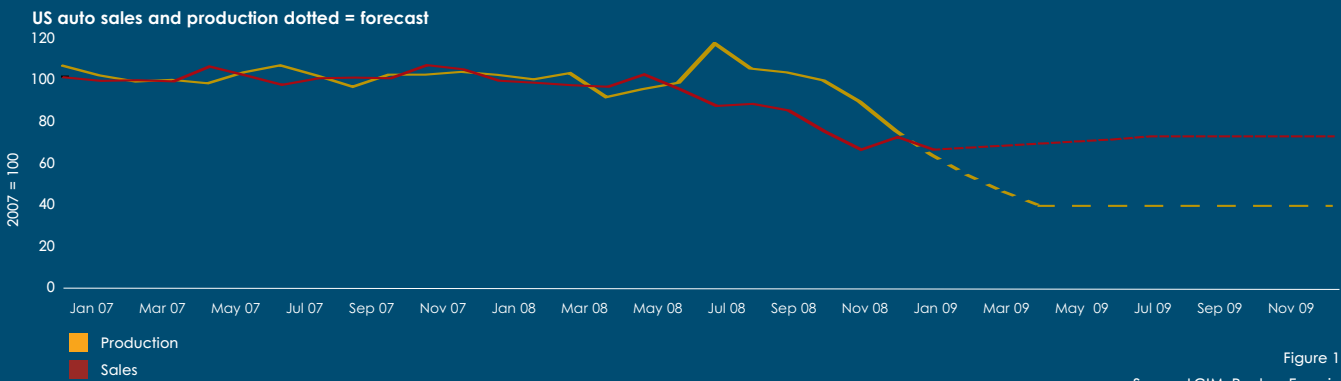
Snapshot

Road to nowhere

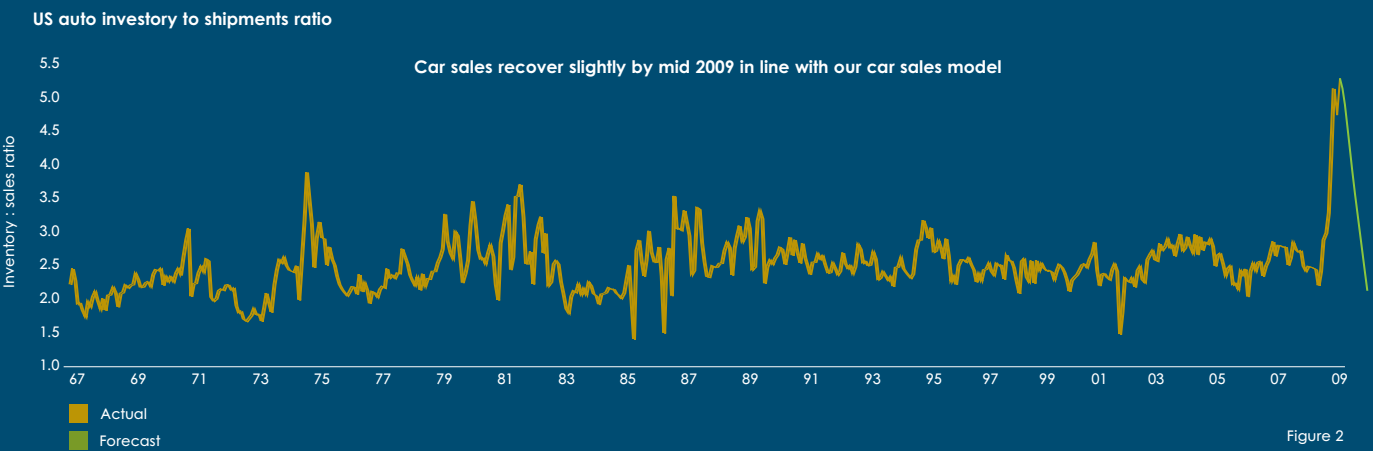
The auto industry has been the focus of media attention recently. For example Honda’s UK factory recently closed for four months. Typically sales of durable, expensive goods like cars tend to suffer disproportionately in recessions. Even when times are tough and we’re worried about our jobs, we still need to buy essentials like toothpaste and send a card for Mother’s day. But do we really need to replace the car? Surely the old one will last a bit longer, even if it is rusting up a bit. Moreover, even if you needed to replace your old car, it’s unlikely you’ll be able to do so. Cars tend to be bought on credit, rather than with cash. And banks are unwilling to lend money in a recession as they’re worried rising unemployment will further add to their bad debts.

The collapse in car sales has led to an unprecedented rise in unsold inventories. That’s why car makers need to slash production now. Output needs to fall below sales to run down inventories. But in the US for example, car sales are currently down almost 40% year-over-year, while production is only down less than 30%. If sales remain flat, cutting production to 40% year-over-year won’t suffice, as there’s still the stockpile of unsold cars to deal with.

In fact, if car sales rise marginally over the summer (in line with our car sales model driven by lending standards, unemployment, car loan rates and gasoline prices), car production might need to fall by over 65% year-over-year to trim inventories. Car production fell 17% month-on-month in December. Our estimates suggest we could see similar sized falls until April (Figure 1), when car production could flatten off.



Given the spillover effects of car production on intermediate and capital goods suppliers, this suggests overall manufacturing output and confidence is unlikely to recover materially until May. Under this scenario, manufacturers’ inventories-to-sales ratio should return from record highs towards their long-run average by year end, when production could be ramped back up in line with sales (Figure 2).



UK Forecast

Now it is consensus

UK Economy		Price Inflation (HICP)		GDP (Growth)		10 Yr Gilt Yields		Base Rates		\$/£		£/Euro	
		Average 2009	Average 2010	Average 2009	Average 2010	End 2009	End 2010	End 2009	End 2010	End 2009	End 2010	End 2009	End 2010
Market participants forecasts		%	%	%	%	%	%	%	%	%	%	%	%
	High	1.80	3.10	-1.30	2.00	4.60	4.82	1.00	1.50	1.91	1.86	0.99	1.05
	Low	0.50	0.90	-3.00	-0.10	2.40	3.30	0.00	0.00	1.27	1.23	0.73	0.67
	Median	0.90	1.70	-2.40	0.80	3.67	3.95	0.50	0.50	1.52	1.60	0.87	0.82
	Last month median	2.35	n/a	-1.00	n/a	4.09	n/a	1.50	n/a	1.52	n/a	0.80	n/a
Legal & General Investment Management		0.80	1.80	-2.20	1.50			0.50	0.50				

Source: Bloomberg and LGIM estimates

Amidst the current volatile environment, the table has been altered to extend the range of forecasts to capture a greater sample size. This now reflects more up-to-date adjustments. The forecasts above are taken from Bloomberg and represent the views of between 20-40 different market participants (depending on the economic variable). The 'high' and 'low' figures shown above represent the highest/lowest single forecast from the sample. The median number takes the middle estimate from the entire sample.

In May 2008 we flagged the likelihood of a 2009 recession in the UK, while other market participants were forecasting growth in the vicinity of 2%. Nine months later, the global economy has stalled and the UK recession has become consensus. This month the median forecast from a Bloomberg survey of market participants shows the UK contracting -2.4% in 2009 (down from -1% in December). We have also revised our UK growth forecasts lower this month to -2.2% (from -1.5% in December).

We believe that the recovery during 2010 will be gradual, and will depend greatly on world trade picking-up, bank lending resuming and further interest rate cuts and fiscal stimulus. As unemployment continues to rise, headline inflation is expected to decline considerably and actually turn negative across many countries during 2009. If wage growth moderates, this poses the risk of outright deflation.

As we anticipated, the severity of the credit crisis has more than offset the beneficial effects of lower energy prices. In response to this deteriorating economic backdrop, authorities across the globe have responded with aggressive fiscal and monetary easing. There has also been a dramatic shift in interest rate expectations. Back in December 2008, the median market participant expected official interest rates to remain as high as 3% during 2009 while we expected rates to fall to 1%. Today we, together with the median market participants, believe rates will fall to 0.5% this year.

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