Fundamentals:

Yellow card



The engine of global growth, the US economy, has been growing steadily since 2009 but there are signs of a slowdown. Are we heading

for another recession?

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In this edition of Fundamentals, LGIM Economist James Carrick looks at the economic cycle and how the interdependencies of corporate profits, bad

loans and credit conditions can affect overall economic growth, concluding that there are signs a US recession is getting closer.

Rising bad loans and tighter credit conditions suggest the US corporate credit cycle has turned. This can become dangerously self-reinforcing. Tighter credit conditions depress growth which in turn hurts profits and companies' ability to repay their debts. While we don't see an imminent 'sending off' for the US economy, we are issuing a 'yellow card' warning that the economy will slow through 2017, and a possible 2018 recession is on our radar.

I am fascinated by the economic cycle. I still remember the pain of the 1980s boom getting out of control and turning into bust. It was what inspired me to become an economist. Gordon Brown claimed to have found the cure. But even independent central banks and 'fiscal rules' failed to tame the beast. It's called the economic cycle for a reason. Unemployment goes down and then shoots up. Schumpeterians¹ believe this 'creative destruction' is a necessary evil that helps the economy refocus on new industries. But it is still painful for those affected.

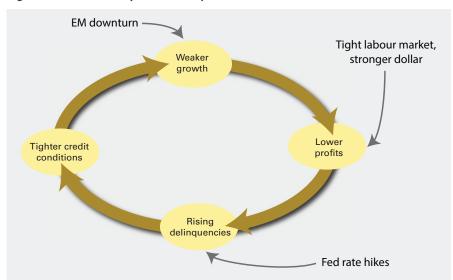
Consensus growth forecasts assume the US economy will continue to grow at a steady pace through 2017 and 2018. We share some of this optimism, but only in the near term.

Our lead indicator framework (see 'Stressed Out', February 2016) points to stronger growth through the rest of 2016 as government spending





Figure 1 - Has the US corporate credit cycle turned vicious?



Source: LGIM estimates and Macrobond

accelerates and the drag from weaker energy capex drops out.

Beyond the next few quarters, we're worried that the credit cycle has turned from a virtuous circle to a vicious one. And like a snowball rolling down a hill, it will become larger and more powerful over time.

The best example is the UK housing market, as it's particularly prone to self-reinforcing boom and bust. Government intervention such as the subsidised help-to-buy mortgage scheme or lower stamp duty can kick-start demand. Given supply is slow to respond, an increase in transactions pushes up house prices. This boosts banks' balance sheets as the collateral on their existing loan book becomes more valuable, making them more confident about making new loans. So they loosen credit conditions (e.g. reduce interest rates on riskier high-loan-to-value mortgages) which in turn boosts transactions and so on. This is the reason we became more confident about UK growth in 2013 as credit conditions eased.

Figure 1 shows the equivalent cycle for the corporate sector. Stronger growth boosts profits. This helps companies service their loans. And

a decline in delinquencies (loans greater than 30 days overdue) makes banks more confident about making new loans, boosting growth.

We worry that this virtuous cycle is turning vicious in the US. The crisis in emerging economies and the collapse in domestic oil investment have hurt economic growth. This, combined with a stronger dollar and a tight labour market, has pushed profits lower. Moreover, the Federal Reserve (Fed) has also started to raise interest rates and so we've seen corporate delinquencies jump. To cap it all, banks are reporting that they're tightening credit conditions for corporate clients. We worry that this can become self-reinforcing.

The benign view is that the bad loans are concentrated in the oil exploration sector. So as long as

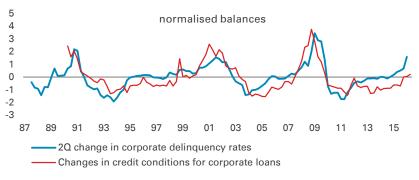
the rest of the economy holds up, delinquency rates will fall back after these oil companies go bust. The problem with this analysis is that banks do not hold equity (shares) in winners. Instead they only make loans to winners and therefore get the same interest payment from them regardless of their profitability.

Consider for example a two-sector economy consisting of oil explorers and airlines. A halving of the oil price would cause bumper profits for the airline sector as their biggest cost-fuel – collapses. Yet, for oil explorers, the difference between say \$100 and \$50 oil could be one of survival vs bankruptcy. How does this affect the bank? Well, it gets the same fixed 5% interest payment from the airline, no matter what the oil price is. But a low oil price causes the oil explorer to become bankrupt and the bank makes a big loss on that loan.

As the bank licks its wounds, it becomes more cautious about making further loans. This explains why changes in corporate delinquencies tend to lead changes in credit conditions (figure 2). So the recent jump in both US corporate delinquencies and tightening credit conditions is worrying as we could be heading into a downward spiral.

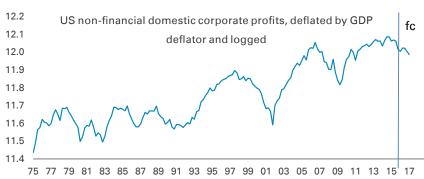
We also worry that bad loans could spread to other sectors as firms get squeezed by a combination of low unemployment and higher interest rates. The US profit share

Figure 2. Rising corporate delinquencies lead to banks tightening credit conditions



Source: LGIM estimates and Macrobond

Figure 3. US profits look to have peaked as margins get squeezed



looks to have peaked (figure 3) and not just because of energy. Analysts at JP Morgan have shown how profits excluding commodities have moved sideways over the past year, just as ex-financial profits moved sideways in 2007 and ex-tech profits moved sideways in 2000. The culprit instead seems to be a tight labour market squeezing profit margins. Unemployment has fallen to cyclical lows and firms report acute recruitment difficulties. Wage inflation and core inflation have both picked up over the past year.

In the short run, we expect US core inflation to stabilise as we estimate it takes around 18 months for the full effect of lower commodity prices and a stronger dollar to feed through (see 'Deflation Defeated', September 2014 for our cyclical inflation model). But in 2017 the Fed could face a real dilemma – "damned if you do, damned if you don't" – that is classic late cycle.

With GDP growth expected to hold up in the short term, the labour market will remain tight in 2017. Rising labour costs should push up core inflation as the drag from lower commodities and a stronger dollar drops out. So the Fed will be under pressure to raise interest rates to slow growth and contain inflation. But a tight labour market will also be squeezing profit margins. And rising interest rates will further impair indebted companies' ability to

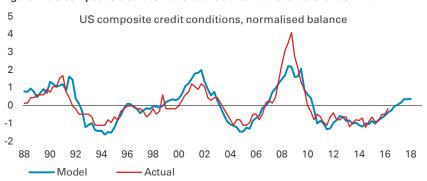
Source: LGIM estimates and Macrobond

service their loans. Rising corporate interest gearing (ratio of interest payments to profits) should cause more corporate delinquencies which in turn should lead to credit conditions tightening further in 2017, even if we assume house prices continue to rise rapidly and the labour market remains strong (figure 4).

In football terms, this situation is analogous to a team chasing a losing game when its star player gets injured. What does the manager do? Keep the player on the pitch or substitute him for a fitter but less skilful player? A dilemma for the manager, and should he lose the game, he'll be cursed by the fans for making the 'wrong' decision. This is the problem central banks faced in 2007. If they hiked rates, they exacerbated the credit crunch, but if they left rates unchanged, inflation would have got out of control.

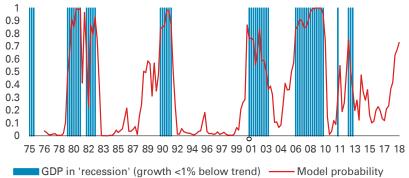
The historical parallels make us issue a 'yellow card' warning to investors that the next few years are likely to be bumpy. We don't think the US economy is about to get 'sent off' with a straight red card. But the situation has turned for the worse and further bad behaviour could see the game end. If pushed, we would argue that we're 70 minutes into the game. The recovery started in 2009 and our credit framework suggests a recession is plausible in 2018 (figure 5), so we're in year 7 out of 9. Perhaps the manager will make the right substitution and we'll score an equaliser and get extra time. But you've been warned. Yellow card.

Figure 4. US composite credit conditions should continue to deteriorate in 2017



Source: LGIM estimates and Macrobond

Figure 5. Our lead indicator framework warns of recession in 2018



■ GDP in 'recession' (growth <1% below trend) —— Model probability

Source: LGIM estimates and Macrobond

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