

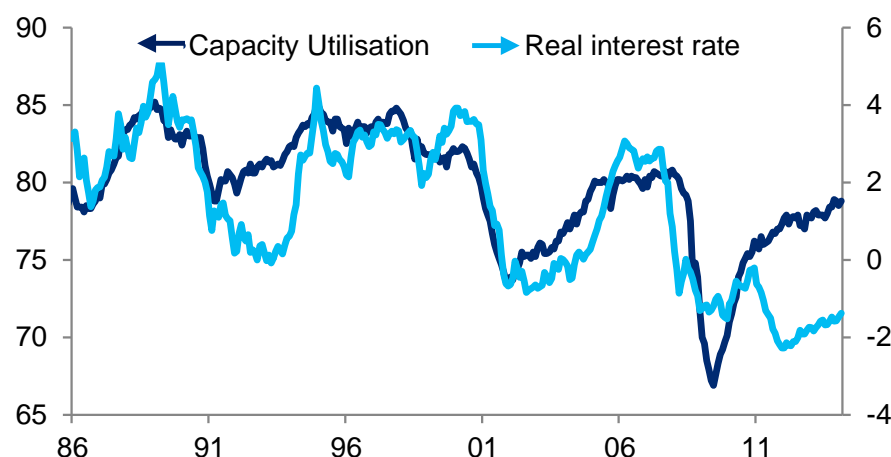
When will the credit cycle turn?

And would spreads actually widen?

- **Invulnerable?** Credit is once again proving itself remarkably resilient to macro events. Even at these tight levels, we remain bullish on European spreads based on ongoing central bank support. In fact, our economists now have [ECB QE as their central scenario](#).
- **The trigger?** However, an eventual turn in the US policy cycle poses the most serious test of tight valuations for several years. While Citi's central scenario is currently close to market consensus, heightened uncertainty about the amount of slack in US labour markets creates the *risk* that the Fed may end up turning more abruptly than forwards imply.
- **Where it hurts the most** - We believe credit would be very vulnerable to such a scenario. Rising yields would dent demand from total return investors, while a bear flattening curve would likely draw money back toward risk-free assets. This scenario is a prospect already during H2 2014.
- **Have your cake and eat it?** As we see it, the challenge this year is to perform in the bullish central scenario without being too wedded to Fed accommodation. Our solution would be to exploit the fact that the cycle is less advanced in some parts of the credit market than in others – and/or less exposed to US policy tightening.
- **Turn back time** - Specifically, we favour: European over US credit, high-beta over low-beta credit, short-dated over long-dated exposure, derivatives over cash, capital markets to deposit-funded retail banks.

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Figure 1. US capacity utilisation vs 1yr real interest rate, %



Source: Citi Research

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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When will the credit cycle turn? ¹

Introduction & Summary

"What's the trigger?" – it's by far the most common question we get. True, you'd kind of expect that from credit investors – habitual investment with small upside and (almost) unlimited downside is surely a recipe for bouncy knees and a nervous tic.

But the frequency with which the question comes up – even from 'uncapped' equity investors – suggests that there is more to it than that. There's unease with valuations, but equally, a sense of invulnerability. If none of the negative catalysts over the last couple of years were able to derail the market, then what could? Many now argue that a turn in the credit cycle is several years away.

To our minds, the lynchpin remains the credibility of the central bank put. The supply-demand imbalance in securities markets created by monetary policy has been the principal driver of asset price performance. In eliminating tail risks, policymakers have also suspended some of the market mechanisms that produce volatility – by creating the belief that any serious drop in asset would trigger further stimulus, investors become less likely to de-risk on negative headlines.

Below we argue that the supply-demand imbalance should remain in place through 2014, making an imminent reversal in flows unlikely. Indeed, the prospect of ECB QE may extend the period of tranquility in markets. During this period we believe that most other negative catalysts – fundamental or political – will have no more than a transitory impact on spreads.

Hence, even at seven-year tights, our strategic recommendation on spreads remains bullish. But what is the risk?

To our minds, also in Europe it is ultimately the turn in the Fed policy cycle. The expectation of higher yields would likely weigh on flows from total return-based accounts. A (bear-) flattening curve would likely drive money back towards risk-free assets over time.

Any indication that there is less slack in the US (and UK) economy than markets currently perceive would quickly render the central bank put less credible there. It may not be the central scenario, but outside the Eurozone there is at least a risk of a reversal in some of the deflationary forces which have made it easy for central banks to promote growth (and asset prices) over fighting inflation. Beyond core CPI, investors could do a lot worse than to follow US wage trends from here on. This could be a central theme already later this year as credit markets position for 2015.

You may not be prepared to give up carry for that eventuality now, but we don't think you have to. There a number of strategies that ought to diminish the sensitivity of your portfolio without denting the performance potential. Specifically, we favour:

- High-beta over low-beta credit
- European over US credit
- Short-dated over long-dated exposure
- Derivatives over cash
- Capital markets to deposit-funded retail banks.

¹ This publication is a writeup of key parts of the presentation ['When will the credit cycle turn? Long on borrowed time'](#), H. Lorenzen, 2 April 2014.

The credit cycle has turned already - or has it?

Arguably, this piece is two years late. Financials are deleveraging (by improving their capital ratios), but leverage in the non-financial sector has been increasing in both the US and Europe² for several years. Non-financial leverage in the latter is now as high as we have seen outside recession.

However, credit spreads and other risk premia seem to be following a different cycle entirely. A few EM-related hiccups aside, seemingly spreads in Europe and the US have continued to grind ever lower towards bubble valuations: iTraxx Crossover is now already trading inside its 2004-07 average (Figure 2). And credit spreads are tight versus their historical relationships with every single fundamental driver in our [valuation report](#).

Why is the spread cycle decoupling from the leverage cycle?

Obviously, part of the answer is that spreads reflect other things than debt and earnings. Short-term default risk is more about debt servicing ability (which is solid thanks to low interest rates) and about uncertainty – both macro and micro, which has [diminished significantly](#).

But with a benign default environment long since priced in, other non-fundamental factors are at work. As we see it, the inherent tendency in credit to overshoot is combining with the supply-demand imbalance in securities markets to squeeze credit tighter and tighter.

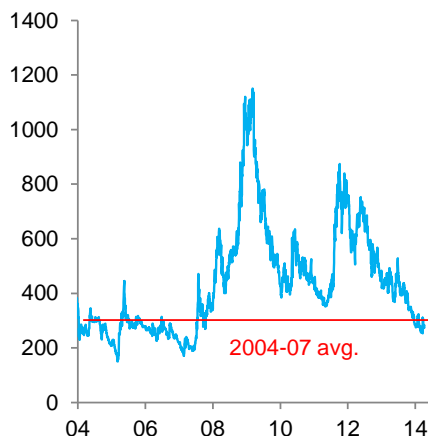
Overshoot first; ask questions later

Spreads rarely stay at "through-the-cycle fair values". Every so often they will be much wider than those fair values, but most of the time they will be trending significantly tighter. At the heart of the credit market are several pro-cyclical processes:

- The tighter spreads are, the more risk/leverage an investor has to take in order to have a shot at reaching excess return targets.
- In the absence of a tangible negative trigger, that bid for risk drives spreads tighter still. 10mn invested in a high-beta asset tightens the index more than 10mn invested in a low-beta asset.
- Ongoing buying helps to keep volatility down. Trading ranges get ever narrower (Figure 3). Over time that reduces VaR and other risk measures. That raises risk limits, which encourages more buying. For instance, non-decaying two-year VaR measures will shortly lose the last bit of the Spain/Italy-driven volatility from the spring of 2012.
- Lower spreads also make for easier refinancing and better interest coverage, stimulating both the economy and corporate fundamentals. This applies in particular to riskier debt, lowering default rates, helping to justify tighter valuations in the first place.
- Good performance encourages yet more inflows, leading to even more buying.
- Limited liquidity means that it only takes a relatively small amount of net excess demand to cause a significant repricing of the secondary market.

² See ['Corporate leverage – Should you be worried?'](#), Hans Lorenzen, 24 February, and ['Corporate Leverage in the Crosshairs'](#), Jason Shoup, 3 October 2013.

Figure 2. iTraxx Crossover spread, bp



Source: Citi Research, MarkIt.

Figure 3. iTraxx Main range, 2012-14, bp



Source: Citi Research, MarkIt.

In fact, why ask when central banks encourage you not to?

Payback from overbought levels obviously comes the day that the market begins to anticipate a rise in loss rates, typically associated with an economic downturn, pushing the dynamic in reverse.

However, usually through a bull phase you see several 'false alarms', like the GM / correlation crisis in 2005-06. What is so unusual currently is that credit appears to have become all but immune to the conventional shakeouts in positioning – the lack of reaction to the situation in Ukraine, last year's US debt ceiling negotiations or even bad Chinese data are all good examples.

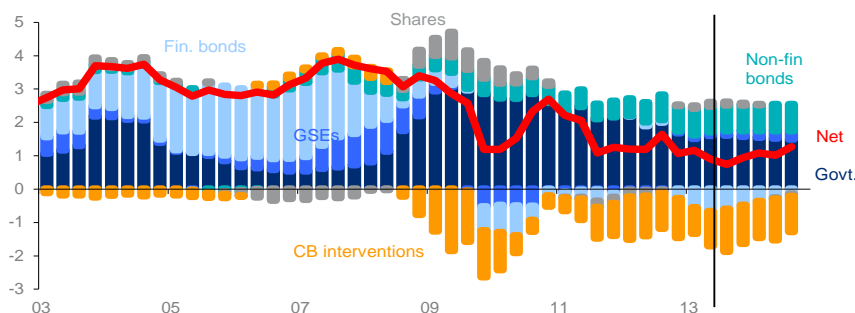
You could attribute it to a "The boy who cried wolf" effect. Since Draghi's "bumblebee"/"whatever it takes" speech³, cutting exposure in response to a negative catalyst has simply been the wrong trade. Lose money, by selling into widening, too often because policymakers come up with a last-minute solution, and eventually investors simply stop selling in the first place, making markets desensitized to headlines.

You could also argue that it is down to strong technicals – or rather the high cash balances, the inflows and for Europe, the negative net supply YTD. Why sell bonds that are expensive to get out of and difficult to find, when inflows are continuously reducing your net long anyway?

However, we reckon the root cause of both is supply-demand imbalance in global securities markets that we have discussed many times before³. A quick recap:

- Our proxy for the net growth in investible securities (the red line in Figure 4), combines net issuance of securities across asset classes for Europe, the US and Japan, from which we have subtracted central bank interventions. It shows a decline in the annual growth in the supply side of the securities markets from \$3-4tn to between \$1-1.5tn over the last few years. Yes, that's about a two-thirds drop in the growth of the universe of securities that you can actually invest in within developed markets.

Figure 4. Net issuance of new securities vs central bank* interventions, 12m rolling, \$ tr

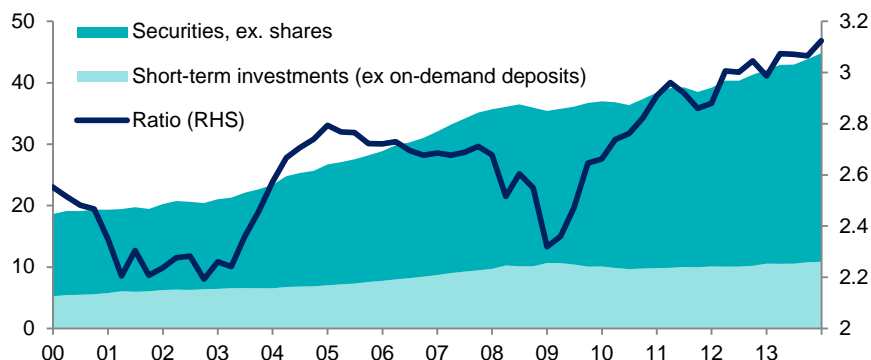


Source: Citi Research, Haver. *: Federal Reserve, Bank of Japan, ECB. 2014 projections assume no QE from the ECB and no increase in QE from the BoJ, either of which would reduce net issuance still further.

- On the demand side, we reckon zero percent deposit rates have pushed risk-free holdings into securities markets. This is harder to prove empirically, but investor holdings of US securities (ex. shares) have grown 26% faster than their holdings of short-term investments (like money market funds, time deposits and CP) (Figure 5). Asset price performance has no doubt contributed to this, but it is also an indication of the hunt for yield across the securities markets.

³ See ['The year of the Greater Fool's Game?'](#), Hans Lorenzen, 13 Jan 2014 for details.

Figure 5. Investors** US security holdings, ex. shares vs. short-term investments, \$ tr



Source: Citi Research, Federal Reserve Flow of Funds, Haver.

*: Investors are defined here as households, foreigners and non-bank financial institutions. Short-term investments comprise time deposits, money market funds, & CP holdings. At market value.

Couple the two and we reckon you're at the heart of the much touted 'central-bank put'. What does this say about the outlook?

2014 should continue to see a dearth of net supply. Despite tapering, the net supply of securities is unlikely to increase meaningfully from last year's levels. We reckon that's the key reason that against expectations (and probably consensus positions) yields haven't risen YTD and credit spreads are tighter.

By our forecasts, net issuance won't rise much across most asset classes, and the reduction in Fed QE will likely be partially, or even completely, offset by the BoJ and the ECB. Our economists anticipate the ECB would have to do €1tr or more of QE to bring projected inflation towards its target of 'below, but close to 2%'. However, the decision may not be made until September or December of this year.

As a result, **the excess demand environment should remain.** Clearly, negative headlines combined with overbought markets can reduce demand temporarily. But until the yield on risk-free investments rises it is hard to see the underlying pressure to invest in risky assets, including credit, abating. Indeed, assuming EM was the outlet for much of the imbalance in DM securities in recent years, reduced EM appetite could make excess demand in DM even stronger.

Therefore we believe **any sell-off would only be temporary for the time being.** By virtue of the fact that demand is rising significantly faster than supply, sell-offs tend to be stunted. Until accounts actually start to fear outflows, they tend to view corrections as buying opportunities.

That's clearly a very bullish message for the immediate outlook in 2014. Hence we remain strategically long on European credit for the time being.

When will the 'put' stop working?

If that imbalance is indeed the reason that DM assets, including credit, have become so desensitized to other potential triggers, then it seems reasonable to assume that 'market normality' will only be restored with the removal of monetary policy accommodation.

FOMC, BoE and ECB projections all suggest their economies will look increasingly 'normal' by 2016 in terms of growth, inflation and to varying degrees employment.

Yet for now, the central banks are still mostly pushing the 'low for longer' story. On current guidance, rates should remain well below 'normal' even at the end of 2016, as central bankers talk up the 'persistent headwinds' to economic recovery. Chief among these may well be the market response to eventual tightening.

On the supply side there is that rather obvious \$1.5-2tr in supply that'll have to find demand elsewhere. Less scarcity of assets should be reflected in the market clearing levels. However, with the growing prospect of ECB QE, that concern seems less relevant than previously, even when looking into 2015.

The principal concern for now has to be on the demand side, on the assumption that risk appetite will be much more sensitive to rate hikes than in previous cycles.

Steep yield curves have made it attractive to take duration relative to risk-free. Ultra low yields mean that corporate credit has continued to offer a significant pickup in relative terms, even at these tight credit spreads.

But on the flip side, that increasingly makes credit vulnerable to a generic rise in yields with associated bear flattening.

Negative return expectations would likely drive some total-return investors out again, as we saw in June 2013. While they might return once yield expectations stabilize at a higher level, they are less likely to do so at current spreads if curves simultaneously bear-flatten⁴, creating a more viable investment alternative in risk-free assets.

Total-return investors in credit make up a considerably higher proportion of the market than in previous cycles⁵. This phenomenon is not unique to credit. Right across asset classes, there are clear signs that the central bank put has pushed people into riskier asset allocations⁶.

Moreover, aside from the yield and curve impact, the perception that the backstop has become more remote (especially if the removal of policy accommodation is partly predicated on financial stability concerns, e.g. 'market bubbles') ought to bring more volatility to a market that has been ignoring headlines. Financial stability is perhaps not top of Yellen's immediate concerns, but if the loosening of credit conditions continues from the tightening in credit spreads to the weakening in loan covenants, then it may yet play a greater role in future independently of the economic data.

As such, we expect that any such shift in US curves would lead to a bigger correction in credit spreads than we saw last June – also in Europe.

So when will that happen?

As we see it, the risks will start to build toward the end of the year, as the market assesses the outlook for 2015.

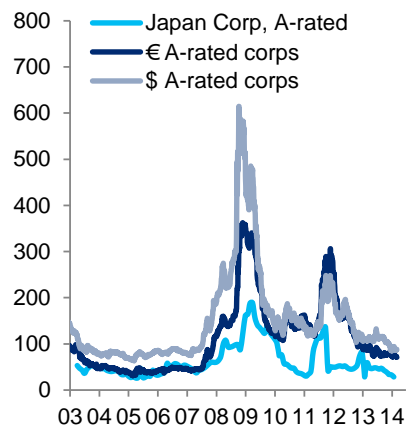
In Europe, the most obvious issue is the likelihood that the ECB is underestimating the downside risks to inflation – indeed, that is the assumption behind our economists' call on QE. However, from a credit perspective we are not terribly concerned about a deflationary environment. Although the associated impact on

⁴ Front end yield moving higher, as opposed to the long end moving lower.

⁵ Judging by the growth in mutual fund holdings relative to other investor types in recent years. See ['Where will the money go in '14: Into credit, but ...'](#), S. Antczak, 6 January.

⁶ ['Tourist traps: How long will the money stay in EM \(and credit\)?'](#), M. King, 28 August 2013.

Figure 6. €, \$ & ¥ corporate spreads, bp



Source: Citi Research

growth might lead to a rise in defaults among the weakest companies, we believe the vast majority of credits would be able to operate regardless. And if anything, the combination of expansive monetary policy, low yields, conservative corporates and less upside in equities, would likely benefit credit – as we saw in Japan (Figure 6).

However, in the US the outlook is rather different. The Fed is going to great lengths to ensure that the turn in the monetary policy cycle is as seamless as possible. But the 'put' is only credible in a market sense as long as there is no conflict between the twin objectives of growth and inflation.

To be clear, the path for both growth and inflation in [our economists' central scenario](#) is not radically different from the trajectory implied by the Fed. Their projections have US inflation accelerating gently to a level just above 2% in 2016 (Figure 7). But there is some upside risk to that central scenario.

To our minds, there are at least two factors that could bring about a faster withdrawal of policy accommodation than is currently priced into markets:

How much slack is there in the US (and UK) economy? This is probably the single biggest question mark at the moment. Ms Yellen recently made an impassioned speech arguing that there is enough slack in the US economy to warrant the current policy stance⁷.

However, the rapid decline in the unemployment rate, towards the level where economists would normally anticipate rising inflation, has to be monitored closely at a time where the much-anticipated turnaround in the labour market participation rate remains imperceptible (Figure 8). A lot hinges on whether recent retirees can be tempted back into work.

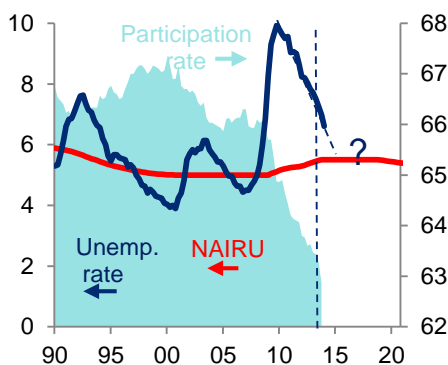
Another indicator that we are monitoring closely is the US capacity utilization rate, which is now back above its 10yr average. At the moment, there is the largest discrepancy between capacity utilization and real interest rates that we have seen in more than three decades (Figure 9). The last big misalignment between capacity utilisation and real interest rates ended with 250bp of rate hikes in 1994.

Figure 7. Citi growth & inflation forecasts

		US	Eurozone
GDP growth	'14	2.8%	1.3%
	'15	3.1%	1.6%
	'16	3.2%	1.6%
Inflation	'14	1.4%	0.7%
	'15	1.7%	0.7%
	'16	2.2%	1.1%

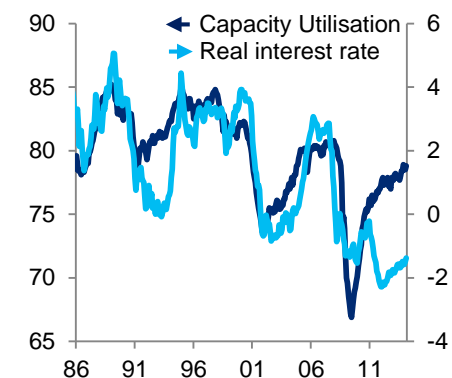
Source: Citi Economists.

Figure 8. US unempl. & participation rate vs CBO estimate of NAIRU, %



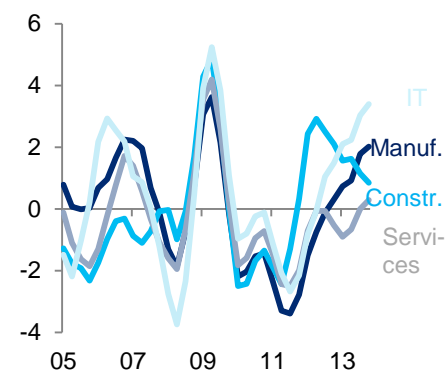
Source: Citi Research, Haver Analytics.

Figure 9. US capacity utilisation vs real interest rate, %



Source: Citi Research, Haver Analytics.

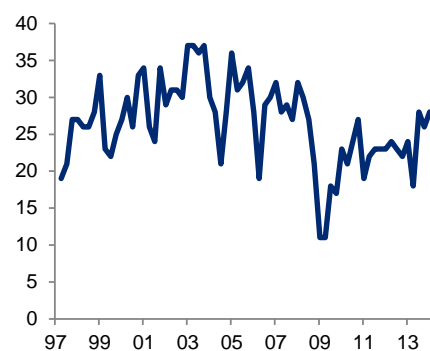
Figure 10. US real wage increase by sector, % YoY



Source: Citi Research, BLS, Haver Analytics.

⁷ ["What the Federal Reserve Is Doing to Promote a Stronger Job Market"](#), J. Yellen, 31 March

Figure 11. Pct. of UK companies seeing price pressure from pay settlements



Source: Citi Research, BCC, Haver Analytics.

But above all, we'd be watching US wages. While wage growth remains comparatively subdued in aggregate, there are signs of sectoral divergences opening up (Figure 10) – possibly an early indication that some sectors might be getting closer to the point where skills shortages emerge.

In the UK, the British Chamber of Commerce's latest survey shows the highest degree of price pressure from pay settlements since 2008 (Figure 11).

If recent trajectories are sustained over the coming months, then we suspect credit markets might be in for a rough adjustment at some point later this year.

Is deflation coming to an end? As we discuss in the appendix, one can make the more generic argument that the disinflationary forces that have been associated with – indeed arguably sustained – the so-called Great Moderation, are ebbing away. While these are unlikely to impact the debate any time soon, they may just contribute to making the trade-off between growth and inflation a little bit harder for central banks over the long term.

But will that also mark the turn in the credit cycle?

We've argued that the turn in the US monetary policy cycle should at the very least bring about a correction in credit spreads – one that is more meaningful than what we saw last June. We've argued that the timing is data dependent, but although we remain bullish on credit for now, there is a risk that market will start to price some of this later this year already. As policy support weakens, we've argued that volatility in credit should rise in a market that is more responsive to headlines – good or bad.

What we haven't done is to set out clearly whether it would also mark a permanent turn in the credit cycle – i.e. whether the correction is permanent or not. We reckon the answer depends on which part of the credit market you look at and how you compile returns:

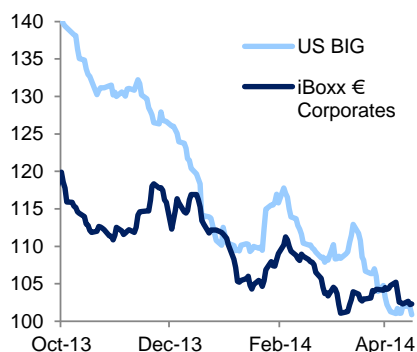
- Compared to high-quality credit, although HY is often priced in yield terms, we believe that demand for low-quality credit is more driven by the economic than the policy cycle. Policy tightening will likely be associated with solid global growth (and low DM default rates). Therefore, **high-beta credit spreads are more likely to recover fully than are low-beta credit spreads**⁸.
- Similarly, equities are more growth- than policy-sensitive. In the early part of the rate hiking cycle, **equity markets are more likely to set new highs than are credit markets**.
- The European and the US policy cycles are diverging. Even as the market is pricing in a growing probability of QE in Europe, the Fed recently talked rate hike expectations forward. Against the global linkages implied by the supply-demand imbalance discussed above, it is very unlikely that European credit would escape the volatility associated with a faster turn in the US policy cycle. But this still implies **European credit spreads are more likely to recover fully than are US credit spreads**.
- We've argued against taking spread duration in the European cash credit market for some time – credit spread curves are too flat to merit the incremental price volatility. And in an environment of rising yields and bear flattening, **short-dated credit spreads should outperform long-dated credit spreads, in spread**

⁸ Though in Europe, that argument has to be balanced against the prospect that ECB QE might also target higher-quality unsecured corporate credit, especially in financials.

return terms. One exception may be the very long end (15yr+) of the US curve, where total-return buyers have been less active than ALM buyers, from whom demand will likely be less sensitive.

- The influence of total-return money should make cash instruments more sensitive to movements in yields than are derivatives. You could argue that a higher level of yields would reduce the need to take leverage – but that's not the reality we saw in 2005-07. On the assumption that credit investors will still be under pressure to take financial leverage to meet return targets, **CDS spreads are more likely to recover fully than cash spreads.**
- Bear flattening ought to affect banks more adversely than non-financials. Liability-sensitive (read: deposit-funded) banks in the US and the UK are unlikely to have an asset base that would offset the effect on earnings. We remain long European banks over non-financials on relative leverage trends. However, as the turn in the US and UK policy cycles draws nearer, we would at the very least **reduce exposure to the US and UK retail banks relative to wholesale banks.**

Figure 12. \$ IG credit spreads outperforming
€, bp



Source: Citi Research, YieldBook, MarkIt.

To us, the recommendations in these bullets boil down to one, simple salient point:

Between markets, currencies, maturities and sectors, right now the credit cycle is very disparate. At a time where everyone is complaining about the lack of opportunities, taking advantage of those disparities seems like the glaring, stand-out strategy.

We don't even think that most of them are particularly consensus. Take the US vs. Europe for instance – US credit has been outperforming European credit over the last six months (Figure 12), suggesting the market has been doing the exact opposite of what the relative position in the cycle would imply.

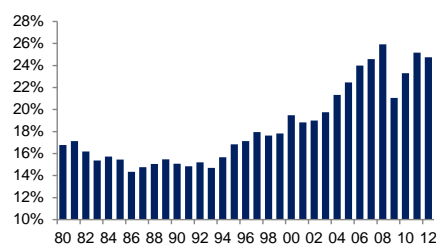
Quite simply, by positioning accordingly you are in effect turning back the credit clock and reducing the chance that you'll get an unpleasant early wake-up call.

Appendix: Is disinflation coming to an end?

Aside from the uncertainty about the slack in labour markets, we suspect central banks may also face something of a shift in the forces that have driven the Great Moderation, and indeed disinflation, over the last couple of decades.

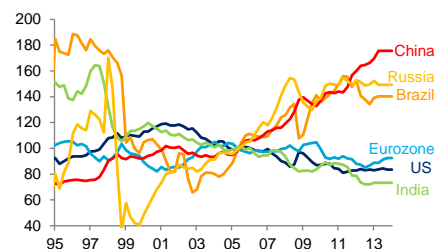
For one, one of the key drivers – globalization – has struggled to recover momentum after the Great Financial Crisis. The expansion in global trade hasn't really recovered (Figure 13). And another key premise for disinflation in Developed Economies– the cheapness of labour in EM – also appears much less supportive than ten years ago (Figure 14).

Figure 13. World exports, % of World GDP



Source: Citi Research, IMF, Haver

Figure 14. Real eff. unit labour costs, '05=100



Source: Citi Research, OECD, Haver

Yet the best reason to suspect an eventual turn in the disinflationary trend is demographics. When more people enter the period in their lives when they save for retirement, you'd expect:

1. A higher level of aggregate savings, and a lower level of demand, relative to output. Moreover, having a comparatively large proportion of the population in the labour market should also temper wage demands. Both are disinflationary.
2. That the increase in savings relative to the stock of assets in the economy should push their relative price higher.

From a central banker's perspective this might sound like easy living. Less demand relative to supply and less wage pressure is obviously disinflationary, allowing a growth-orientated monetary policy⁹. Moreover, the demand for financial securities should push long-dated interest rates lower and equity prices higher, providing further impetus to growth by encouraging investment and through wealth effects.

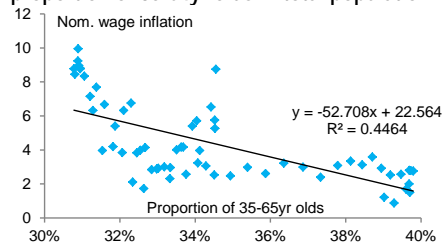
But taken to the extreme it could be what pushes the equilibrium short-term real interest rate below and inflation towards zero, with the implication that it takes ever looser monetary policy to sustain full employment and positive levels of inflation.

In other words, it might not be a coincidence that much of the Great Moderation characterized by declining inflation and nominal interest rates and rampant credit growth coincided with the baby boomers moving through the 'savings age' (defined as people between 35-64 years). It's probably no coincidence either that it ended in a fight to stave off deflation.

Figure 15 shows the relation between US nominal wage growth and the proportion of the US population in the 'savings age' group. More ominously, Figure 16 shows the 'savings age' proportion against the value of the US financial market relative disposable income. Again, there appears to be a striking long-term relationship.

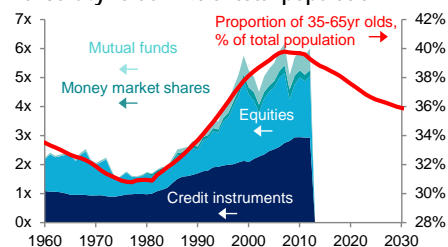
⁹ I.e. lower interest rates than in the scenario with a flat demographic.

Figure 15. US nominal wage growth, % yoy, vs. proportion of 35-64yr olds in total population



Source: Citi Research, Haver. Data from 1960-2013.

Figure 16. US fin. market value to disp. inc., vs. 35-64yr olds in % of total population



Source: Citi Research, Haver

The salient point here is the pending turn in the demographic cycle, which very gradually may result in profound shifts in both labour and financial markets. In turn, this would also imply that central banks eventually find that their ability to support growth through monetary policy without stoking inflation is diminished.

Even with 50 years of data, the length of the demographic cycle makes it hard to establish a statistically significant relationship. Instead, we've plotted inflation against savings-age population across numerous countries to see if the pattern is repeated.

Inflation vs. "savings age population" in % of total population for select countries

Figure 17. United States

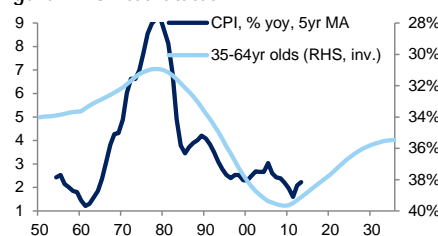


Figure 18. United Kingdom

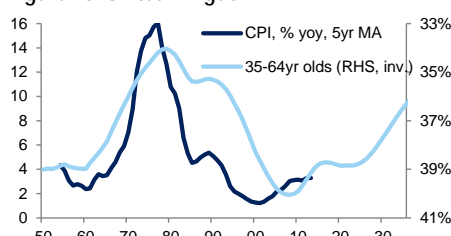


Figure 19. Germany

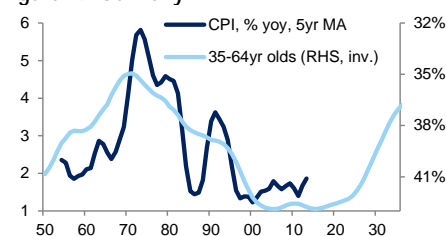


Figure 20. Japan

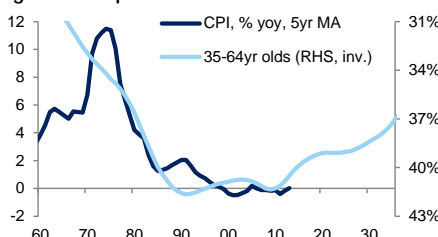


Figure 21. South Africa

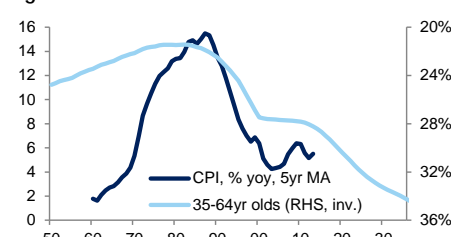
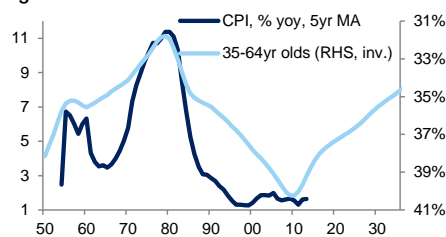


Figure 22. France



Source: Citi Research, UN Population projections, OECD Main Economic Indicators, Haver

Evidently, the inflation experience varied greatly between countries both in terms of level and volatility reflecting the domestic fiscal and monetary policy mix. But in every case, the turn in the inflation cycle does appear to coincide with a sharp rise in the savings age population – even in a country like South Africa, where the peak in inflation occurred much later than in most developed economies.

Now, clearly this is not a short-term issue for markets. Our point is merely that a central bank contemplating this kind of shift ought to be all the keener to avoid creating an economy and asset valuations that are too hooked on low interest rates.

Appendix A-1

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