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Credit Strategy

Should credit investors worry about higher yields?

This is the credit strategy section from the latest Rates and Credit Weekly note.

- In spite of a couple of days of notable risk aversion in the past week, one of the main concerns investors have for 2013 is that credit spreads could widen due to Government yields rising.
- There is little evidence that higher yields lead to wider credit spreads using historical data from the US back to 1919.
- Going forward we could actually see spreads tighten if yield rises are due to improved data, however if higher yields are due to renewed sovereign spreads we could see wider spreads.
- This cycle is very different to anything seen through history, if higher yields result from an expectation the FED might halt its asset purchases this may, for a time, lead to some risk reduction.
- If the economy can withstand less QE then spreads could still tighten in a post-QE world, if this is not the case then further widening may ensue.
- The worst case scenario for any credit market would be if yields rose because a lack of faith in the Government's ability to pay investors back as we have seen in the European Sovereign crisis.
- We think the fears of wider spreads as a result of higher yields is overblown in core countries for 2013, other factors like the likely path of the economy are perhaps more important.

Periodical

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Should credit investors worry about higher yields?

In spite of a couple of days of notable risk aversion, one of the main concerns investors have for 2013 is that credit spreads could widen due to Government yields rising. Just looking at 10 year US Treasury yields (current 2.00%, start of 2013 1.76%) yields have risen 61bps from their all-time lows back in July last year. DB expect them to finish 2013 around 2.75% with the consensus at similar levels.

It seems that many market participants are worried that such a rise in yields and the prospect that it could become more aggressive, could be enough to cause credit spreads to suffer in 2013. One argument being that the spread as a percentage of yield would look less attractive.

With all this in mind we decided to look at the long-term history of the relationship between government yields and spreads and see if there is any evidence that credit investors should fear rising yields. For this exercise we are going to rely on Moody's long-dated, long-term corporate spread series. Given that the AAA and BBB data stretches back to 1919 we focus on these. We have also looked into HY, using Single-B data which goes back to 1988.

We are going to look at this two ways. Firstly to see if there's a bias towards tighter or wider credit spreads depending on whether the underlying Government yield environment is low or high. Secondly we are going to look at whether a change in the underlying yield environment has an impact on spreads.

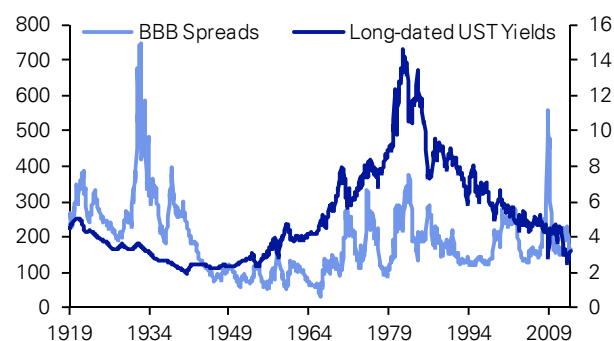
Does the overall yield level impact spreads?

Intuitively it feels a totally plausible suggestion to believe that spreads should be tighter at lower yields and should be wider when yields are higher. It surely must be more

attractive to have a 100bp spread asset when Government yields are 1% than if they were say at 10%.

However as much as we've heard this argument through the years, there is little evidence to support such a proposition. Indeed as Figure 1 shows, there doesn't seem to be an obvious relationship over time between yields and spreads (using BBBs here).

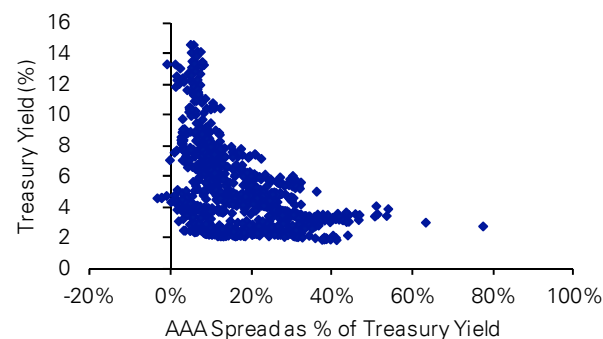
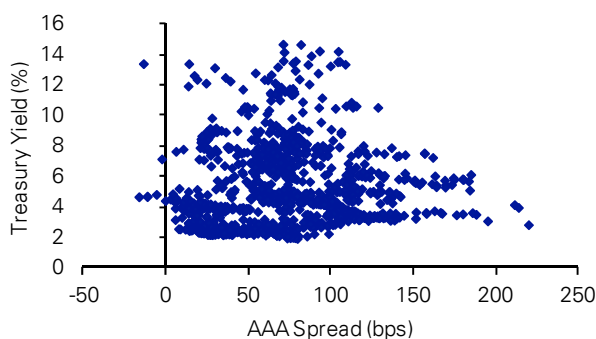
Figure 1: Long Dated Treasury Yields vs. BBB Spreads since 1919



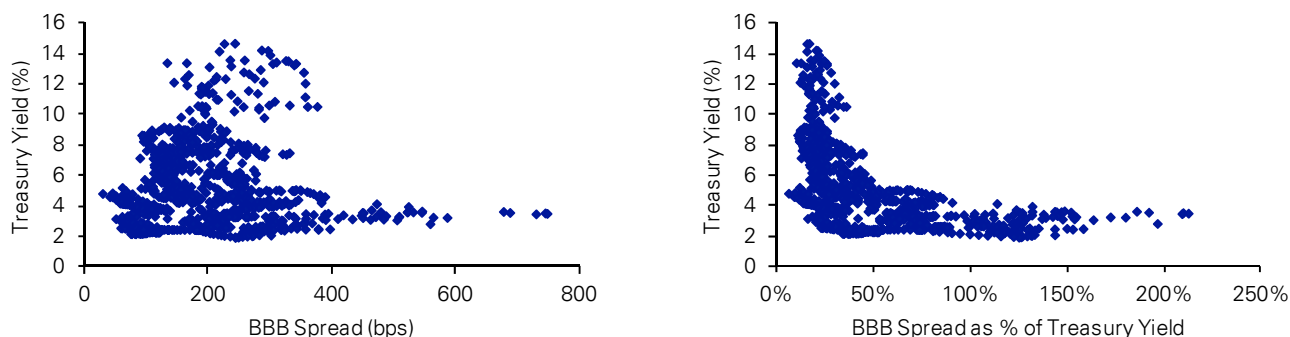
Source: Deutsche Bank, Moody's, GFD

This is confirmed by looking at the scatters in Figure 2- Figure 4. The left hand charts show AAAs, BBBs and Bs vs. maturity matched Government yields and the right hand charts shows the spreads for the same rating bands as a percentage of the Government yields vs. the outright Government yield.

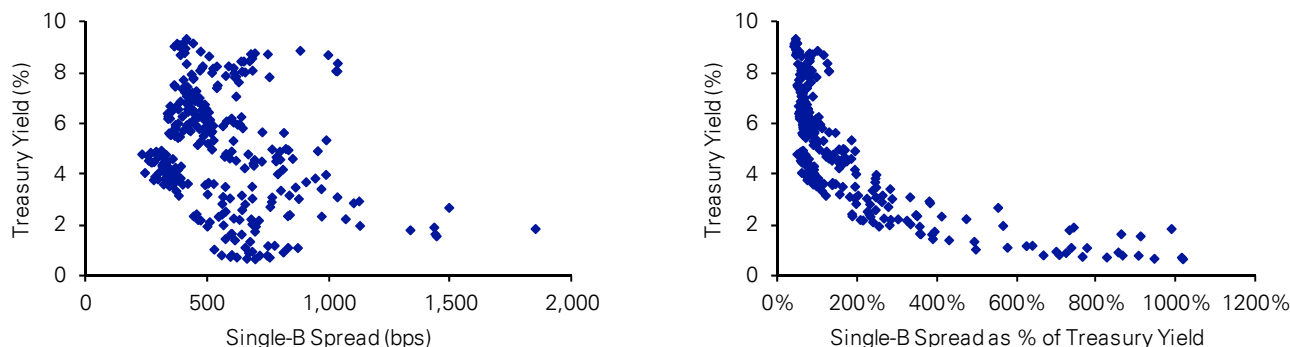
Figure 2: Treasury Yields vs. AAA Spreads (left) and vs. AAA Spreads as a Percentage of Treasury Yield (right)



Source: Deutsche Bank, Moody's, GFD

Figure 3: Treasury Yields vs. BBB Spreads (left) and vs. BBB Spreads as a Percentage of Treasury Yield (right)

Source: Deutsche Bank, Moody's, GFD

Figure 4: Treasury Yields vs. Single-B Spreads (left) and vs. Single-B Spreads as a Percentage of Treasury Yield (right)

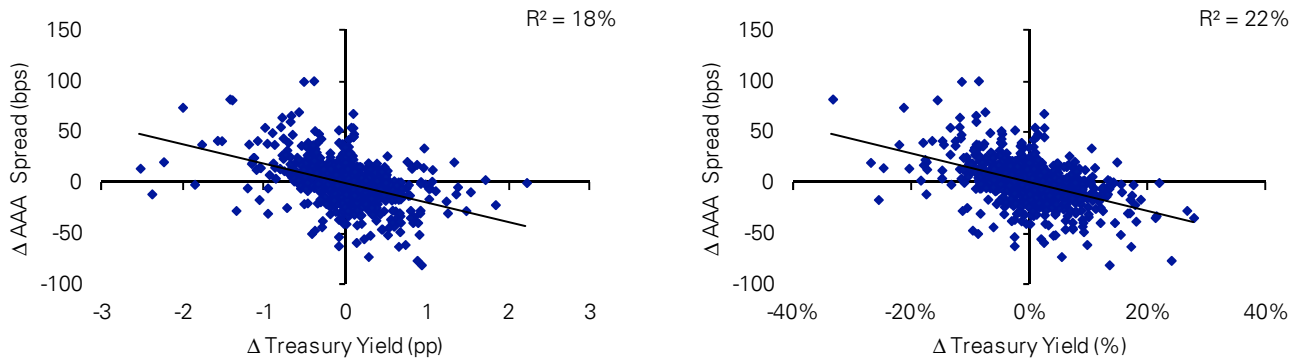
Source: Deutsche Bank

There is little evidence to suggest an obvious relationship between the overall yield level and spreads. This is confirmed by looking at the scatters on the left where there is no real pattern between spreads for any rating bands and Government yields. Indeed one might argue that if there is a bias it is that spreads have the propensity to be at their very highest in a low yield environment. This makes sense in terms of a low yield possibly reflecting fairly serious economic challenges.

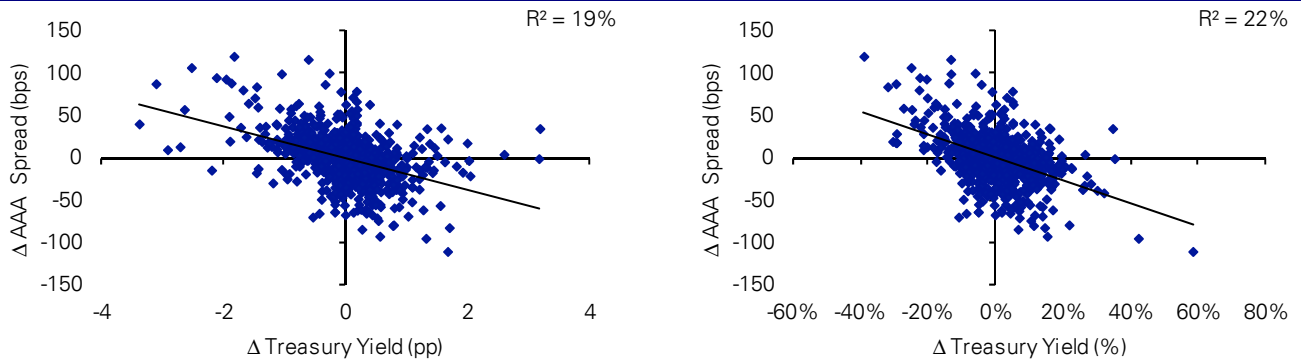
In terms of spreads as a percentage of the underlying Government yield, the scatters show that there's a strong bias for the % to be high when yields are low and visa-versa when yields are high. This provides further evidence that spreads behave fairly independently of the underlying yield environment. Now we'll move on to whether a sharp change in the yield environment impacts spreads.

The impact of yield changes on spread

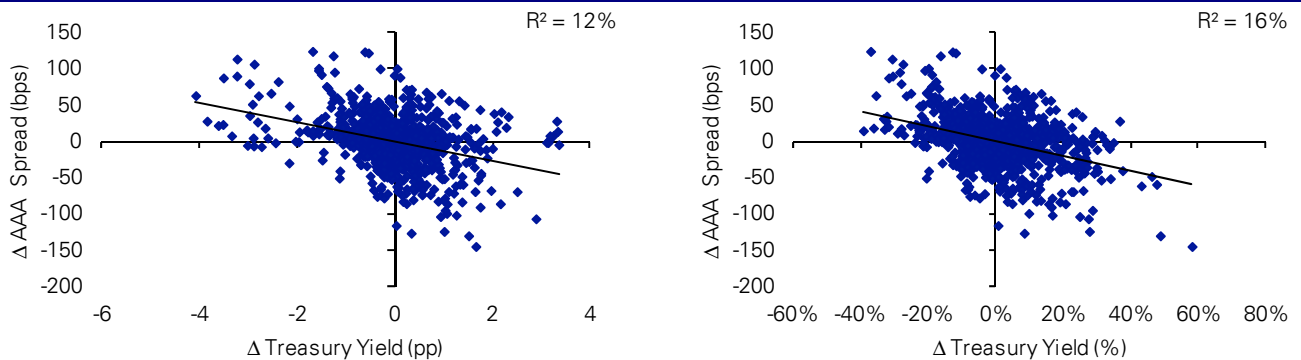
Using the same three rating bands for our analysis, Figure 5-Figure 13 show what has happened to Government yields and spreads over a 3, 6 and 12-month period. We should be able to see if large moves in yields over these time periods have a notable impact on spreads. We used the 3-month period to see whether for example, a short period of sharply higher yields has historically had a greater impact on credit spreads than a similar move spread out over say 12-months. We also make a distinction between absolute moves in Government yields and the same moves on a % basis relative to the starting yields. Clearly a 100bps move in yields when the starting point is say 1% might have a different impact on the results than when one sees a 100bps move when yields were 10%. In order to ascertain this, the scatters on the left are absolute yield changes whereas those on the right are a percentage change relative to the starting yield.

AAA**Figure 5: 3m Absolute Change in Treasury Yield vs. Absolute Change in Spread (left) and 3m Percentage Change in Treasury Yield vs. Absolute Change in Spread (right)**

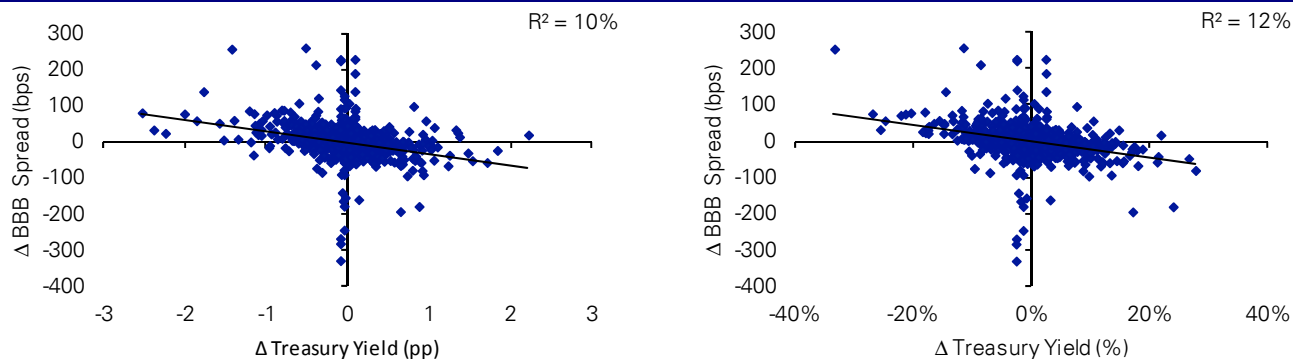
Source: Deutsche Bank, Moody's, GFD

Figure 6: 6m Absolute Change in Treasury Yield vs. Absolute Change in Spread (left) and 6m Percentage Change in Treasury Yield vs. Absolute Change in Spread (right)

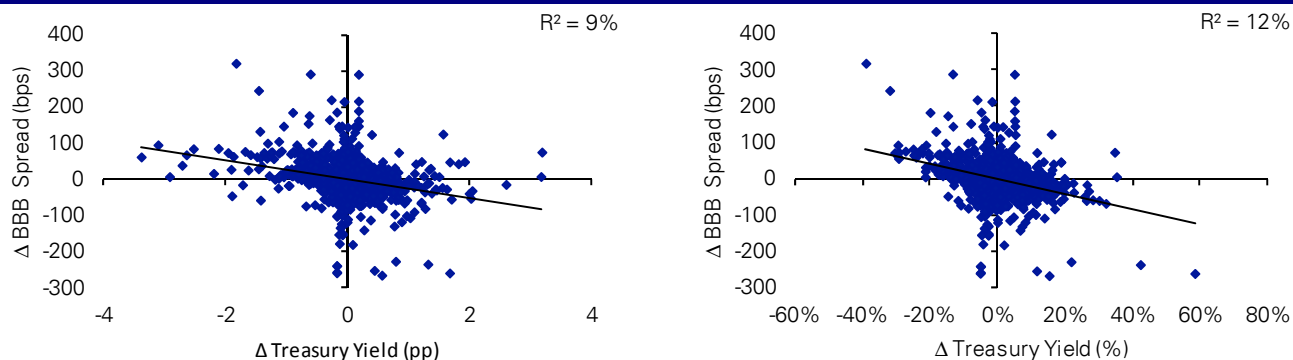
Source: Deutsche Bank, Moody's, GFD

Figure 7: 12m Absolute Change in Treasury Yield vs. Absolute Change in Spread (left) and 12m Percentage Change in Treasury Yield vs. Absolute Change in Spread (right)

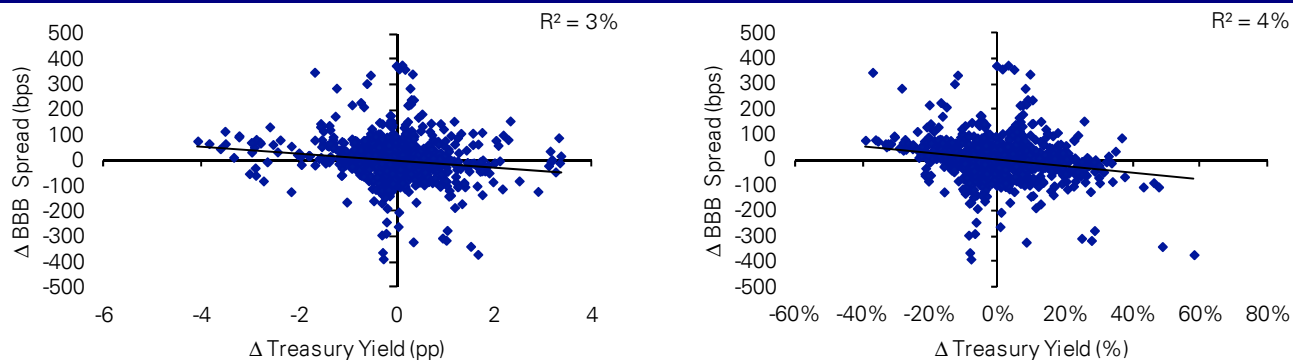
Source: Deutsche Bank, Moody's, GFD

BBB**Figure 8: 3m Absolute Change in Treasury Yield vs. Absolute Change in Spread (left) and 3m Percentage Change in Treasury Yield vs. Absolute Change in Spread (right)**

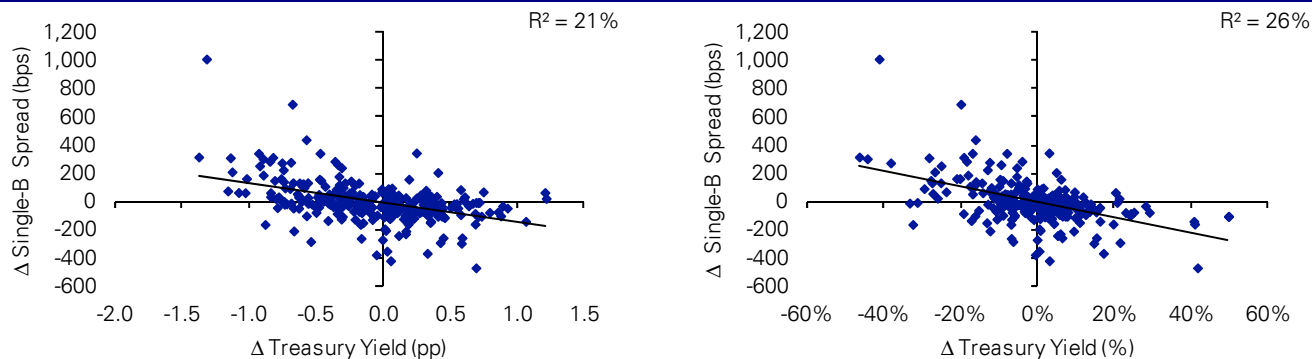
Source: Deutsche Bank, Moody's, GFD

Figure 9: 6m Absolute Change in Treasury Yield vs. Absolute Change in Spread (left) and 6m Percentage Change in Treasury Yield vs. Absolute Change in Spread (right)

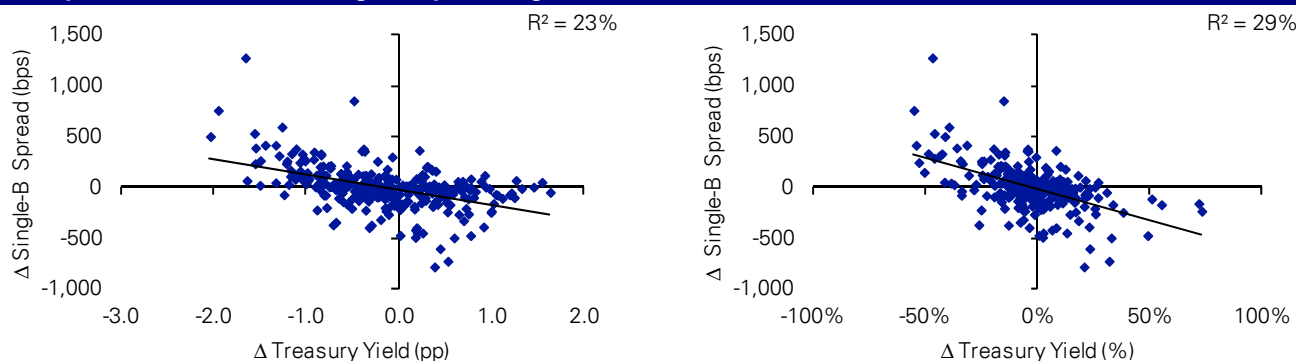
Source: Deutsche Bank, Moody's, GFD

Figure 10: 12m Absolute Change in Treasury Yield vs. Absolute Change in Spread (left) and 12m Percentage Change in Treasury Yield vs. Absolute Change in Spread (right)

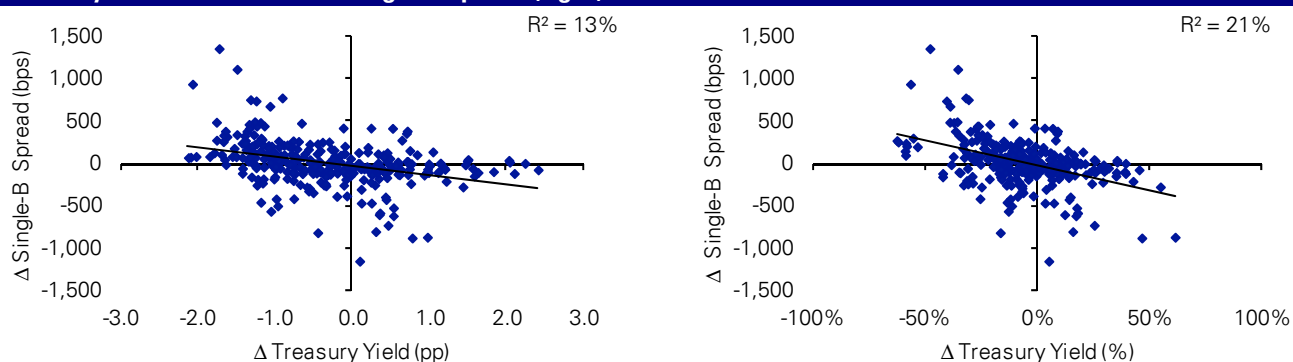
Source: Deutsche Bank, Moody's, GFD

Single-B**Figure 11: 3m Absolute Change in Treasury Yield vs. Absolute Change in Spread (left) and 3m Percentage Change in Treasury Yield vs. Absolute Change in Spread (right)**

Source: Deutsche Bank

Figure 12: 6m Absolute Change in Treasury Yield vs. Absolute Change in Spread (left) and 6m Percentage Change in Treasury Yield vs. Absolute Change in Spread (right)

Source: Deutsche Bank

Figure 13: 12m Absolute Change in Treasury Yield vs. Absolute Change in Spread (left) and 12m Percentage Change in Treasury Yield vs. Absolute Change in Spread (right)

Source: Deutsche Bank

The first thing to say is that across all rating bands and across all the sample periods examined, there is a bias towards higher yields leading to tighter spreads. Indeed

most of the big moves higher in spreads have generally occurred in a world of sharply declining yields.

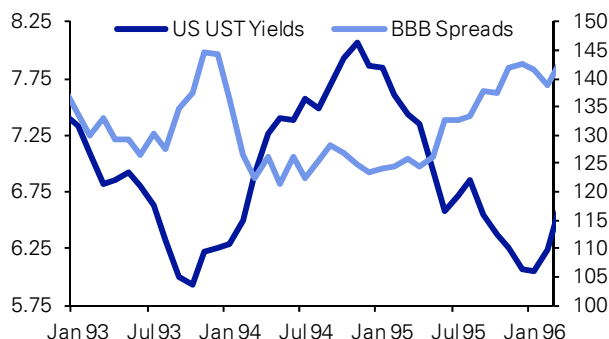
Again there is some logic to this. In normal times lower yields often reflect a deteriorating macro environment and higher yields often reflect a healthier one. So it makes some sense to see that spread changes are generally inversely correlated to yield changes.

Indeed there is very little evidence through history that higher yields are a worry for credit spreads whether they rise sharply over a short period or whether the rise is slightly more measured and spread over a year. There also doesn't seem to be a noticeable difference between whether we look at yield changes in absolute terms or relative to the starting yield. So there is no compelling evidence to suggest a 100 bps move higher in Government yields is more worrying when yields start at 1% than starting at 10%.

What about 1994?

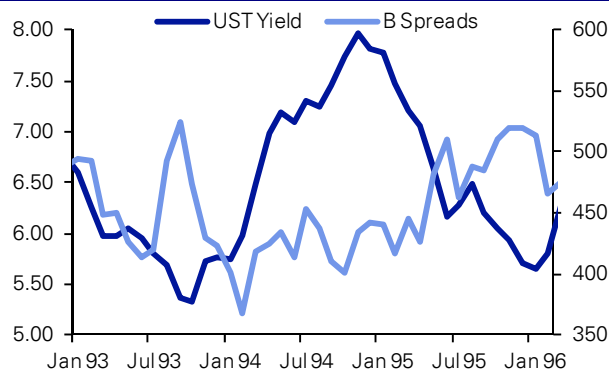
Those with a long memory or those who are students of relatively recent financial history will look at 1994 as a case study of sharply higher yields. So what happened to credit spreads over this period? Figure 14 shows what happened to BBB spreads and Figure 15 to single-B spreads relative to Government yields over the period

Figure 14: BBB Spreads vs. US Treasury Yield



Source: Deutsche Bank, Moody's, GFD

Figure 15: Single-B Spreads vs. US Treasury Yield



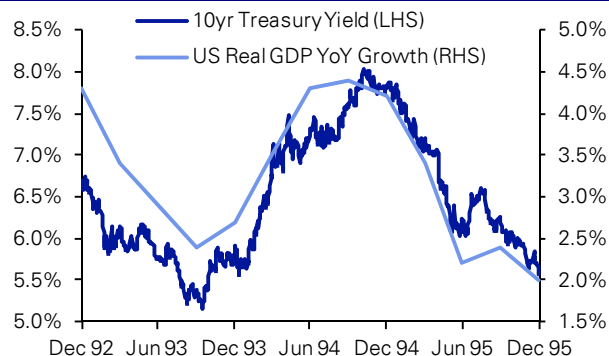
Source: Deutsche Bank

As can be seen Government yields rose over 200bps between Q4 1993 and Q4 1994 with around 100bps occurring in the first 5 months of 1994. However there is no real evidence that spreads were negatively impacted. Indeed the initial yield sell off in late 1993 led to a tightening of spreads and spreads didn't start widening until late 1994/early 1995 when yields started to fall.

GDP and/or defaults are key?

The 1994 analysis is perhaps enhanced with Figure 16 which shows 10 year US Treasury yields alongside US GDP growth between 1993 and the end of 1995.

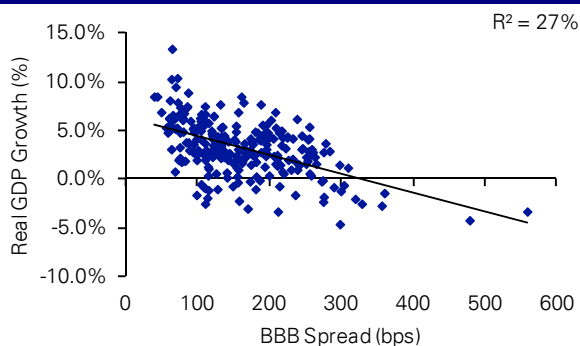
Figure 16: US 10 Year Treasury Yields vs. US Real GDP Growth (1993-95)



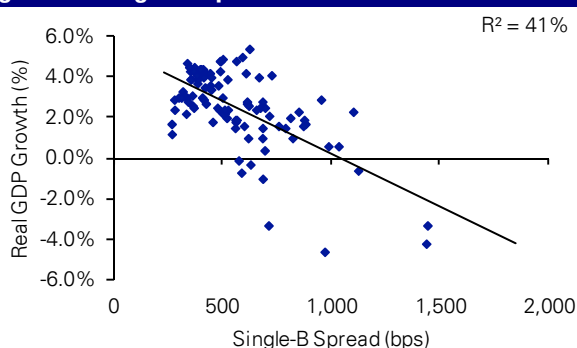
Source: Deutsche Bank, Bloomberg Finance LP

This argues that the main reason yields rose so sharply was because of a rapidly improving economic environment. By late 1994, this had started to peak, probably due to the Fed's aggressive rate rising policy that year, and the economy then weakened back and yields fell through 1995. As we saw above credit spreads struggled more in the lower yield/weaker economic environment of 1995 than the higher yield/stronger economic environment of 1994.

Figure 17 and Figure 18 show that there is a reasonably good correlation between GDP and credit spreads through time and is arguably stronger than for yields, especially for Single-Bs. Again this makes sense as traditionally the economic cycle is a large determinant for defaults which in turn should impact spreads.

Figure 17: BBB Spread vs. Real GDP since 1948

Source: Deutsche Bank

Figure 18: Single-B Spread vs. Real GDP since 1988

Source: Deutsche Bank

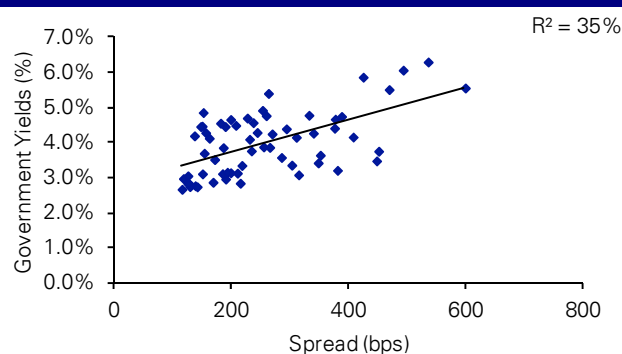
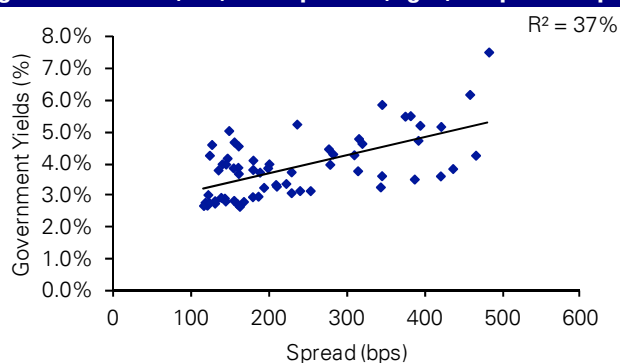
So it's fair to say that from the historical US database, there is little evidence to suggest that credit investors

exposed to spread risk need to fear a rise in yields in 2013 or beyond. The fear should perhaps more come from anything that derails the current evidence of an economic recovery.

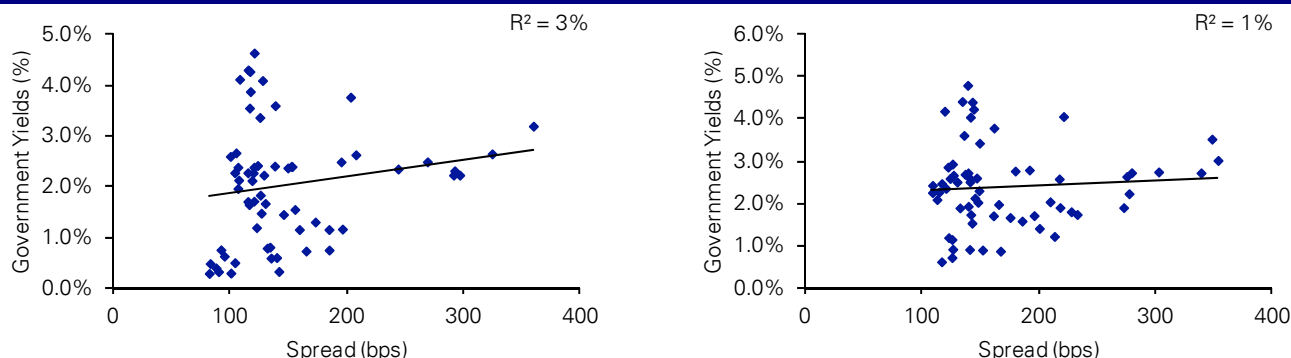
What about Sovereign Risk?

The analysis has so far concentrated on historical US data, a market where Government yields have very rarely reflected anything other than the state of the economy, inflation and general supply and demand considerations. Two questions feed off this. 1) Would the inverse relationship between yield changes and spreads be as compelling in an environment where yield rises were due to concerns about repayment? i.e. Sovereign Risk and 2) If so, is the danger that other markets like the US will eventually behave differently from the past due to a different sovereign outlook than maybe that seen through history?

The data to analyze such a proposition is less comprehensive but we can look at the situation in Europe over the last 5 or 6 years to see if those countries that have seen a rise in yields due to Sovereign concerns alone have seen their domestic credit spreads move wider. Figure 19 and Figure 20 show the relationship between the underlying yield environment and credit spreads since 2007 for the largest 4 countries in the Euro-Zone. This is neatly split between two that have suffered extreme Sovereign concerns (Italy and Spain) and those at the core who have not suffered the same problems (Germany and France).

Figure 19: Italian (left) and Spanish (right) Corporate Spreads vs. Government Yields

Source: Deutsche Bank, Bloomberg Finance LP

Figure 20: German (left) and French (right) Corporate Spreads vs. Government Yields

Source: Deutsche Bank, Bloomberg Finance LP

Although there is clearly less data here than the long-term US data, one would have to say that there is evidence to suggest that when a Sovereign becomes stressed and suffers higher yields due to concerns about re-payment (e.g. Italy and Spain), then there is some evidence to suggest that wider spreads follow. The graphs also show that there isn't really such a bias for Germany and France where there hasn't been concern over Sovereign repayments.

As we said this analysis is limited by the small sample size and period. There are examples of EM and DM countries under stress seeing their corporates tighten as investors believe that they are more likely to repay than their Sovereign. So while we think the analysis above shows that there are more risks to corporate spreads in a bout of higher yields due to Sovereign credit concerns than for positive economic growth or higher inflation, the relationship becomes more complicated when a Sovereign is stressed. It might depend on whether the individual country has predominantly domestic companies or whether they are internationally based with fortunes more directly linked to the global economy.

Conclusion

There is little evidence that higher yields lead to wider credit spreads using historical data from the US back to 1919. If the higher yields going forward were due to stronger data then we could even see tighter spreads. If higher yields are due to renewed Sovereign fears in any part of the globe then we can see wider spreads so it depends on the cause.

One word of caution though would be that this cycle is very different to anything seen before through history. The argument that higher yields might be a response to an expectation that the FED may halt its purchase of assets might for a time lead to some risk reduction. However within a very short period of time spreads will likely be linked to the economic environment. If the economy can withstand less QE then spreads could still tighten in a post-QE world. If however the economy weakens due to the FED pulling back then we'll likely be back to lower yields and wider spreads. The worst case scenario for any credit market would be if yields rose because a lack of faith in the Government's ability to pay investors back. That has never occurred in the US so we don't have any historical evidence here. The European Sovereign crisis is a warning sign that it could occur in 2013 in some countries but it may still take a few years to be an issue in the core.

So we think the fears of wider spreads as a result of higher yields is overblown in core countries for 2013. Other factors like the likely path of the economy are perhaps more important.

Appendix 1

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